

DPHICON 2022

Scientific Abstract

100 years of excellence in promoting health and preventing disease.

**Directorate of Public Health and Preventive Medicine,
Tamil Nadu, India. 600 006.**



DPHICON 2022

PREFACE



DPHICON 2022 is an international conference to mark the 100 years of DPH. servicing the population. Directorate of Public Health and Preventive Medicine (DPH) had been a pioneer and had set examples in various public health initiatives.

Data gathering and interpretation of data is a vital process in the field of public health , as it gives a picture of the burden of the disease as well as the trend in the disease profile. It also enables policy makers to recognise the risk factors that are affecting the population. The directorate is cognisant of the importance of research in public health and various initiatives had been taken by the directorate to provide a conducive environment for conducting research.

Tamil Nadu Journal of Public Health and Medical Research(TNJPHMR), is an official quarterly journal publication of the directorate focussing on publishing public health related research. Institutional Review Board with Ethics Committee and Scientific committee is formed by the directorate to ensure quality and ethical research from the directorate.

In one such effort to promote research, scientific paper presentations is hosted in the DPHICON-2022 conference. Abstracts were called for this presentation. Around 300 abstracts were received from various sources like Medical and paramedical staff working in public health , Post graduates , Researchers, etc. All the abstracts went through a rigorous review process. This souvenir is a compilation of all the abstracts ,presented in different themes. The best scored abstracts were also invited for submission of full papers in the special edition of the directorate's journal, TNJPHMR. This souvenir marks the value that the directorate imposes on promoting quality and ethical research.

We thank all the contributors & review team.



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**CHALLENGES
IN
PUBLIC HEALTH**

A Study to Identify The Lifestyle Associated Factors Causing Menstrual Irregularities In Women of Reproductive Age Group (20-40 Years) Attending Gynaecology Op In A Tertiary Care Hospital, Chennai

Sara Mehaboob, P. Mownika Sri, Nikitha Raji. R, Dr. Bamilan, Dr. R.yamuna Devi, Dr. Seenivasan P

STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Any uterine bleeding outside the normal volume, duration, regularity, or frequency is considered menstrual irregularity. Menstrual irregularities can occur primarily due to lifestyle (where pelvic pathology, pregnancy is excluded). When modifiable factors are identified, policymakers can formulate and direct interventions towards menstrual health and hygiene. This study will assess the effect of socioeconomic status, nutrition, BMI, sleep, drugs intake and stress, on the menstrual cycle of women in the reproductive age group. Curbing these often-neglected factors, will decrease the global burden of concerning issues such as PCOS and infertility.

METHODOLOGY: cross sectional study was conducted among 91 women seeking the gynecology OP for menstrual irregularities between July - September 2022 using a semi-structured questionnaire containing information on socio-demographic details, BMI, diet, exercise, stress levels, drug intake. Data was entered in MS EXCEL and analyzed using Epi

Info7.2.5. Chi-square test was used. P value <0.05 was considered statistically significant.

RESULTS: Among the 91 participants with menstrual irregularities, only 38% had their BMI within normal limits. 50.5% participants performed excessive physical work. On questioning their perceived level of stress, 68.2% answered as being stressed, with 61.5% participants having difficulty falling asleep. From those taking contraceptive pills, 59.3% were taking them due to PCOS while 15.6% of them took the pills due to menstrual irregularities.

CONCLUSION: Health education and interventions are necessary to create awareness of the ill effects of chronic menstrual irregularities on women's health, such as PCOS, infertility, premature menopause, proneness to osteoporosis amongst others.

KEYWORDS: Awareness, Lifestyle, Menstrual irregularities

Essential Nutrient and Covid 19 Pandemic - Effect of Vitamin A on Primary Health Care Workers in Salem District 2020

Radhalakshmi M, Nirmalson J, Parthipan K

DIRECTORATE OF PUBLIC HEALTH AND PREVENTIVE MEDICINE, CHENNAI

BACKGROUND: The severe acute respiratory syndrome (SARS) coronavirus-2 is a novel coronavirus belongs to the family of corona viridae and it originated in the Wuhan city of China in 2019.

Vitamin A is a multifunctional vitamin involved in the proliferation and maintenance of epithelial cells in the body, including those of the respiratory tract epithelium. The immune-mediating, antioxidant and antimicrobial roles of vitamin A were applied in the study. Because of its proven effectiveness in protecting against measles-associated pneumonia, Vitamin A supplementation in the healthcare workers has been investigated as a possible intervention to speed recovery, reduce the incidence and the severity of the covid 19 infections.

OBJECTIVE: To assess the incidence of covid 19 infection among the health care workers who received the vitamin "A" supplementation.

METHODOLOGY: The study was conducted as a cross sectional study during the month of April 2020 to November 2020 in the health care workers of Salem district.

RESULTS: In the present study, the majority of the participants were in the age group of 31 to 40 years in both the groups. The positivity rate was 1.2% and 46% among the Vit A recipients and Vit A non-recipients respectively. The incidence of covid positive cases was 1.2% only in the Vit "A" recipient group.

CONCLUSION: Vitamin A supplementation reduced the incidence of covid infection among the health care workers. The antioxidant, anti-inflammatory effect of vitamin A has a major protective role in the community in decreasing the morbidity due to corona virus and viral infections affecting the respiratory tract

KEYWORDS: Vitamin A, Respiratory Epithelium, Corona virus, Immunity

Utility of Serum Neurofilament Light Protein as a Biomarker in Traumatic Brain Injury

Shalini Pasupuleti, Ashima Sharma, Vamsi Krishna Yerramneni

NIZAMS INSTITUTE OF MEDICAL SCIENCES, HYDERABAD

BACKGROUND: Traumatic Brain Injury (TBI) is the most predominant cause of morbidity globally. The load of TBI has been transposed from young to elder generations which leads to a raise in the cost of treatment compared to young due to delay in recovery. The addition of blood biomarkers can provide more reliable information about neuronal injury and can aid clinical evaluation without sacrificing sensitivity. They may also serve as cost-effective tools with good specificity to aid in acute assessment, especially in the absence of risk factors for intracranial injury or hidden TBI.

METHODS: 34 severe TBI patients between 2019 to 2020, admitted to Nizam's Institute of Medical Sciences, Hyderabad, India were enrolled. 30 ortho trauma patients (OT) and 30 Healthy controls were also included in the study. All the participants were assessed for serum levels of Neurofilament Light protein (NFL) and S100B.

RESULTS: Serum NFL and Serum S100B concentrations of the severe TBI patients on

day 0 ranged from 150.8 to 414.6 pg/ml and 705.26 to 3747.37 pg/L. The values of NFL (OT: 44.3 ± 13.17 , Healthy controls: 30.55 ± 7.85 , pg/ml) and S100B (OT: 452.13 ± 121.14 , Healthy controls: 72.18 ± 21.52 , pg/L) were markedly higher in severe TBI patients than serum levels in Healthy controls and OT patients. NFL levels at d0 hours after injury were significantly higher in non-survivors vs survivors ($p=0.012$). Also, NFL levels over periods of hospital stay were significantly higher in non survivors as compared to survivors. The similar dynamics were noted for S100B but not statistically significant ($p=0.202$).

CONCLUSION: NFL would help for better prognostication in TBI patients. Measurement of NFL in serum may be useful to assess the axonal degeneration by knowing the severity of TBI especially in long term impairment, Whereas, S100b can be useful to diagnose the disease.

KEYWORDS: Traumatic brain injury, NFL, S100B

Point of Care Estimation of C-Reactive Protein And Vitamin D For Tuberculosis Screening In Household Contacts of Active Pulmonary Tuberculosis Patients in Tamil Nadu, India: A Pilot Study

Saravanan Natarajan, Souparnika Sreelatha, Rajakumar Subramani, Kawaskar Munisamy, Anandkumar Balasubramanian, Ponnuraja Chinnaiyan, Padmapriyadarsini Chandrasekaran

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, CHENNAI

BACKGROUND: National Tuberculosis Elimination Program (NTEP) has stressed employing efficient screening tools for active case finding in high-risk populations such as household contacts (HCs). Symptom-based screening procedure of WHO is sensitive but less specific. Evidence supports the role of vitamin D (Vit-D) deficiency and elevated C - reactive protein (CRP) in predicting active PTB. Therefore, the utility of point of care (POC) estimation of Vit-D and CRP in HCs of active PTB patients was explored as a screening tool.

METHODS: Stored plasma samples of 200 HCs of PTB patients recruited for ‘Cohort for Tuberculosis Research by the Indo-US Medical Partnership (C-TRIUMPH)’ at ICMR-NIRT, were identified from the repository. Data on culture/smear reports and other demographic information were accessed from the institutional data resource. Vit-D, <10ng/mL, 10-20ng/mL, >20ng/mL is considered deficient, insufficient and sufficient respectively, while CRP <5mg/L, 5-10mg/L and >10mg/L is considered low, moderately high and high respectively. 10 μ L and 50 μ L plasma were used for the POC

estimation of CRP and Vit- D respectively, and results were analyzed using SPSS (version 25).

RESULTS: One HC developed active TB during the assessment period, while three HCs were with active TB at the time of enrolment. All active cases were less than 18 years of age; among the active TB cases the Vit-D levels were >10 ng/ml and the CRP levels were <5 mg/L. In adult HCs, none of them developed TB and 88.6% had CRP <5mg/L and only 5.6% were Vit-D deficient. One prevalent case reported, the occurrence of cough during the assessment period.

CONCLUSION: Due to very small proportion of active cases (1 out of 200) neither the POC tests nor the WHO symptom-based screening procedures could predict the active TB in HCs. To achieve the significant predictability prospective studies with adequate sample size will be planned

KEYWORDS: Pulmonary Tuberculosis, Household contacts, Vitamin D, C-Reactive Protein

Impact of Psoriasis In Social Life of Patients Above 18 Years of Age

Aadam Ahmed Khan, T Aathi Raja, Dr. Anbu selvam, Dr. T Susila, Dr. P Seenivasan

STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Psoriasis is an inflammatory disease mediated by T lymphocytes. The social impact of psoriasis is substantial. Consequently, the social stigma of psoriasis can be devastating for patients, evoking feelings of shame and anxiety about how they are perceived, and it has been linked to the depression and suicidal tendencies in the patients, since the quality of life is poor. Our study focuses mainly on various ways in which psoriasis affects people by changing their quality of life, creating a sense of stigma, psychological disturbances and having a major impact in their social life.

MATERIALS & METHODS: This is a cross sectional study with a sample size of 140, conducted among the people attending dermatology OPD in Government Stanley Hospital with Psoriasis covering more than 10% Body Surface Area through convenience sampling method. Data was collected using pre-tested structured questionnaire through face-to-face interview. Data was entered into Excel and statistical analysis was done using SPSS v.16

RESULTS: Our study showed that most of them affected 42(30%) were between the age group of 40-50 and most of them were females 72(51.4%). Majority of participants 73(52.1%) belong to uneducated category. Among the study participants, limbs 41(29.3%) was the site most affected and only 110(78.6%) got enough support from their family. Also 108(77.1%) were very much satisfied with the treatment provided. There is significant association between site of lesion and sexual life, time interval for diagnosis and treatment satisfaction, age and marital status.

CONCLUSION: The study concluded that psoriasis has a severe effect on the social life of the affected patients. Efforts like health education program promotion need to be done to improve the social life of psoriasis patients.

KEYWORDS: Psoriasis, social life.

A Retrospective Analysis of Prevalence of Hemoglobinopathy Disease Among Different age Groups in The Nilgiris District

Dr. P. Balusamy, Dr. L.Fasna

STANLEY MEDICAL COLLEGE, DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Any uterine bleeding outside the normal volume, duration, regularity, or frequency is considered menstrual irregularity. Menstrual irregularities can occur primarily due to lifestyle (where pelvic pathology, pregnancy is excluded). When modifiable factors are identified, policymakers can formulate and direct interventions towards menstrual health and hygiene. This study will assess the effect of socioeconomic status, nutrition, BMI, sleep, drugs intake and stress, on the menstrual cycle of women in the reproductive age group. Curbing these often-neglected factors, will decrease the global burden of concerning issues such as PCOS and infertility.

METHODOLOGY: cross sectional study was conducted among 91 women seeking the gynecology OP for menstrual irregularities between July - September 2022 using a semi-structured questionnaire containing information on socio-demographic details, BMI, diet, exercise, stress levels, drug intake. Data was entered in MS EXCEL and analyzed using Epi

Info7.2.5. Chi-square test was used. P value <0.05 was considered statistically significant.

RESULTS: Among the 91 participants with menstrual irregularities, only 38% had their BMI within normal limits. 50.5% participants performed excessive physical work. On questioning their perceived level of stress, 68.2% answered as being stressed, with 61.5% participants having difficulty falling asleep. From those taking contraceptive pills, 59.3% were taking them due to PCOS while 15.6% of them took the pills due to menstrual irregularities.

CONCLUSION: Health education and interventions are necessary to create awareness of the ill effects of chronic menstrual irregularities on women's health, such as PCOS, infertility, premature menopause, proneness to osteoporosis amongst others.

KEYWORDS: awareness, lifestyle, menstrual irregularities

A Cross Sectional Study on Challenges and Needs Among Anganwadi Workers Under Rural Health Training Centre- Hiresavalagi, Kalaburagi

Dr. Manjunatha Vittala Kaligouda, Dr. G. Ajay Kumar

GULBARGI INSTITUTE OF MEDICAL SCIENCES, KALABURAGI

BACKGROUND: Any uterine bleeding outside the normal volume, duration, regularity, or frequency is considered menstrual irregularity. Menstrual irregularities can occur primarily due to lifestyle (where pelvic pathology, pregnancy is excluded). When modifiable factors are identified, policymakers can formulate and direct interventions towards menstrual health and hygiene. This study will assess the effect of socioeconomic status, nutrition, BMI, sleep, drugs intake and stress, on the menstrual cycle of women in the reproductive age group. Curbing these often-neglected factors, will decrease the global burden of concerning issues such as PCOS and infertility.

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CONCLUSION: Health education and interventions are necessary to create awareness of the ill effects of chronic menstrual irregularities on women's health, such as PCOS, infertility, premature menopause, proneness to osteoporosis amongst others.

KEYWORDS: awareness, lifestyle, menstrual irregularities



**COMMUNICABLE
DISEASE**

A Cross Sectional Study on Knowledge, Attitude, Practice of Tuberculosis Among Adults Above 20 Years of Age in North Chennai

Dr. M. Anbu Selvam, Dr. Evangeline Mary, Prof. Dr. P. Seenivasan

GOVERNMENT STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Each year, we commemorate World Tuberculosis (TB) Day on March 24 to raise public awareness about the devastating health, social and economic consequences of TB, and to step up efforts to end the global TB epidemic. TB disease diagnoses fell 20% in 2020 and remained 13% lower in 2021 than pre-pandemic levels. The data underscore the urgent need to ensure awareness and health seeking behavior. Assessment of knowledge, health seeking behavior in the community is essential to improve the health education strategies and prevention and treatment.

MATERIALS & METHODS: A cross sectional study was conducted in North Chennai among adults above 20 years of age, through Consecutive sampling till the required sample size of 300 was obtained. Data was collected using pre-tested structured questionnaire through face to face interview. Data was entered into Excel and statistical analysis was done using SPSS v.16.

RESULTS: Our study showed that most of them 91(30.3%) between the age group of 25-

34 with 83 participants (63.8%) coming from urban areas 213(71%) and completed primary schooling 79(26.3%). Majority of participants belong to unemployed 100(33.3%). The mean knowledge score was 8.11 and 183(61%) of participants had scored above the mean and were considered as having high overall knowledge about TB. Based on the mean attitude score, 162 (54%) of study participants were scored an attitude score above the mean and considered as having a favourable attitude towards TB. The mean practice score was 3.45, 155(51.7%) of study participants was scored below the mean practice score and were considered as having a poor practice about TB prevention.

CONCLUSION: The study concluded that study participants had good knowledge and attitude towards TB. But this knowledge is not effectively seen in preventive mechanisms of TB. The routine health education programs should strengthen in community.

KEYWORDS: Tuberculosis, knowledge, Mean

A Study on The Burden Of Dengue and Chikungunya in The Rural Field Practice Area of Tertiary Care Hospital, Bengaluru

Dr. Divya Bharathi G, Dr. Ramesh Masthi N R

BANGALORE MEDICAL COLLEGE & REASERCH INSTITUTE, BANGALORE, KARNATAKA
 KEMPEGOWDA INSTITUTE OF MEDICAL SCIENCES & REASERCH INSTITUTE, BANGALORE, KARNATAKA

BACKGROUND: Dengue is disease of public health importance. The burden of dengue and chikungunya disease across geographical regions of India is poorly quantified and most of the information available is from hospital-based studies. Objectives: 1. To assess the prevalence of dengue and chikungunya in the study area. 2. To spatial-map the dengue and chikungunya cases using and Quantum Geographic information System (QGIS).

METHODS: This cross-sectional study was conducted in the rural field practice area of a medical college near Bangalore. A total of 31 villages were chosen through simple random sampling method and 3356 subjects were surveyed through household visits. Smart phones with Epicollect5 application and GPS were used for data collection. QGIS was used for spatial mapping the cases. Descriptive statistics like percentages, proportions, mean, median and appropriate inferential statistics were applied with R studio with R commander statistical package.

RESULTS: 3356 subjects were surveyed, and the prevalence of Dengue and Chikungunya

was 1.13% [95% CI (0.0077-0.0149)] and 0.02% respectively. The overall prevalence of dengue and chikungunya cases together was 1.16% [95% CI (0.0080-0.152)]. All 39 (100%) cases had reported fever and 31 (79.5%) reported myalgia followed by arthralgia 22 (56.4%). 36 (1.4%) cases were residing in pucca house, 30 (1.7%) sourced their drinking from public source and was found to be statistically significant QGIS helped spatial-map the cases in the study area and no clustering of cases were found.

CONCLUSION: The prevalence of Dengue and Chikungunya was found to be 1.1% [95% CI (0.77-149)] and 0.02% [95% CI (0.00-0.09)] respectively. QGIS was found to be useful in spatial mapping of the cases and there was no clustering of cases observed. Behavioral change and communication (BCC) strategies to increase awareness regarding Dengue and Chikungunya for prevention and control of the disease.

KEYWORDS: Dengue, Chikungunya, Field survey, QGIS

A Cross Sectional Study on Recurrence of Tuberculosis In Patients Undergoing Treatment Under National Tuberculosis Elimination Programme in Chennai in 2019

Kavyadharshni. B.B, Dr. Senthilarasi
 STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Recurrent tuberculosis is defined as a patient previously been treated for Tuberculosis, who were declared cured or treatment completed at the end of their most recent course of TB treatment and are now diagnosed with another episode of TB. Recurrent Tuberculosis being a long term outcome of the disease, is not being assessed by the Control Programmes hence year wise trends regarding recurrent TB is not available. Therefore, the objective of the study is to estimate the proportion of recurrent tuberculosis among registered tuberculosis patients under NTEP in Chennai and to identify certain risk factors for recurrence of TB.

METHODS: All smear positive tuberculosis patients registered under and undergoing/ underwent treatment under NTEP between January 2019 and June 2019, from 3 randomly selected Tuberculosis Units were included in the study. The basic treatment details were obtained from the Tuberculosis registers. A structured interview was conducted with recurrent TB patients using an interview schedule.

RESULTS: Recurrence of TB was estimated to be 15.6% (95% CI 11.7, 20.1). Risk factors associated with recurrence included male gender (77%, OR=2, P value = 0.05), Age between 36-50 years (49%, OR=2.07, P value = 0.05), smoking (43%, current smokers OR = 7.18, P value = 0.01, past smokers OR=2.10, P value = 0.03), current alcoholics (6.4%, OR = 5.46, P value = 0.035), Microbiologically confirmed TB (63.8%, OR = 2.29, P value = 0.01) and HIV infection (9%, OR = 5.83, P value = 0.01).

CONCLUSION: The estimated burden of recurrent TB is relatively higher at 15.6%. Smoking and alcohol are identified as the major modifiable risk factor along with age and gender which are non-modifiable risk. This will help in making possible interventions in the programme to reduce recurrence.

KEYWORDS: Recurrent tuberculosis, Tuberculosis, Tuberculosis control, tuberculosis prevention

Prevalence of Filariasis Among Migrants Kancheepuram District

Dr. Priya Raj, Dr. Jeshtin, K. Manivarma

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Lymphatic filariasis is the world's second leading cause of long-term disability. Although filariasis does not kill, it causes debility and imposes severe social and economic burden to the affected individuals, their families and the endemic communities. The current estimate reveals that 120 million people in 83 countries of the world are infected with lymphatic filarial parasites, and it is estimated that more than 1.1 billion (20% of the world's population) are at risk of acquiring infection. Over 40 million people are severely disfigured and disabled by filariasis and 76 million are apparently normal but have hidden internal damage to lymphatic and renal systems.

Indigenous lymphatic filariasis cases are reported from 20 States/UTs namely Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Uttar Pradesh, West Bengal, Puducherry, Andaman & Nicobar Islands, Daman & Diu, Lakshadweep and Dadra & Nagar Haveli. From these States/UTs, a total of 250 districts have been identified to be endemic for filariasis with a population of about 600 million at risk.

OBJECTIVE: To estimate the Prevalence of Filariasis among migrants of Kancheepuram district

METHODOLOGY: A community based cross sectional study was carried out. Night blood smears 20 cubic mm were obtained between 9-11.30 pm by finger prick method and thick smears were prepared and usual staining procedure was performed. Data was entered in MS Excel and analysis done using SPSS 16 version. Appropriate descriptive and inferential statistics were used.

RESULTS: Out of 654 persons examined. Overall microfilaria rate was 3.05% (20 persons were positive. Out of these 654, (98.01%) 641 were males and 13(1.98%) were females Out of these 654, Mf was positive for 20 persons ,95 % were males and 5 % were female. The lowest number of microfilariae was seen in 1 in 20 cumm of blood while the highest count was 181 in the 20 cumm of the blood. Nearly 17 persons were in the age group of 20-40 years.

CONCLUSION: The prevalence of filariasis among the migrants was 3.05%. Available evidence suggests that there is a considerable dispersal of LF-infected people from endemic areas to Non endemic areas and within endemic areas.

Assessing The Knowledge and Perceptions of The Role of Tuberculosis Champions In Bengaluru - A Mixed Methods Study

Dr. Iswarya P, Dr. Ranganath T S, Dr. Karthikeyan

BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE, BENGALURU, KARNATAKA
THEMATIC LEAD TUBERCULOSIS KARNATAKA HEALTH PROMOTION TRUST, BENGALURU, KARNATAKA

BACKGROUND: Tuberculosis (TB) is the tenth global cause of death. As per the Global TB Report 2021, the estimated incidence of all forms of TB in India for the year 2020 was 188 per 100,000 population. According to India TB report 2022, Karnataka had reported 62,621 new cases. The National Strategic Plan for Tuberculosis Elimination (NSP) calls for a community-based approach as a key strategy. TB Champion is TB survivor trained with standard training curriculum, willing to work for TB elimination. Since this is still an unexplored area, this study is intended to assess the knowledge and about the perceptions of the role of TB Champions in the diagnosis, treatment and prevention of the disease.

METHODS: A pilot study was conducted, and a semi-structured validated questionnaire was created to assess the knowledge. Convenient sampling method was used, study conducted between March to July 2022. An informed written consent was obtained, along with the socio-demographic details, the details of disease occurrence, treatment completion,

mode of training was collected. Following which the perceptions of the TB champions about their role was assessed by 3 focused group discussions comprising of 11, 10,13 participants in each group respectively which was recorded, transcribed and analyzed.

RESULTS: Out of 34 participants, 52% were males, 64% had knowledge on the route, mode of spread of disease, 78% of the participants had knowledge regarding Nikshay Poshan Yojana. In the focused group discussions, the main suggestions were provision of identity cards for the TB champions from Government, compensatory wages, frequent Information Education Communication (IEC) activities.

CONCLUSION: The present study highlights that recognizing the TB champions, provision of compensatory wages and a nodal contact person for guiding in treatment and diagnosis can help their active participation for Tuberculosis elimination.

KEYWORDS: Tuberculosis, TB champions, Knowledge, perception

Active Case Finding for Tuberculosis Among Residents of Selected Urban Wards in Puducherry

Anandaraj R, Lavanya B, Vignesh M, Kavita Vasudevan
 INDIRA MEDICAL COLLEGE AND RESEARCH INSTITUTE, PUDUCHERRY

BACKGROUND: Active case finding, being a provider-initiated activity, the risk groups are identified and approached, and thus early diagnosis and treatment initiation are possible. Our objective was to perform active case finding for tuberculosis among residents of selected urban wards in Puducherry.

METHODOLOGY: ACF activity was conducted in four of the 30 wards in an urban PHC in Pondicherry. Usual residents of the study setting were included irrespective of their age and gender. Subjects currently on anti-tubercular treatment, subjects unable to be interviewed despite mop up visit, non-consenting subjects were excluded. Study tools included village map, data sheet, tally sheet, planner sheet, NTEP lab investigation form and Falcon tubes. Prior permissions obtained. Survey methods briefed to team members and supportive supervision done in the field as well. An alpha-numeric Household ID was assigned to each household. Informed oral consent obtained from participants. COVID precautions were followed. Identified presumptive TB patients were subjected to upfront CBNAAT testing. Locked households

or those incompletely interviewed were visited in the evening by the mop-up team once.

RESULTS: of the 2189 households present in the selected wards, 1923 were visited and 6294 subjects were surveyed (83.6%). The mean (\pm SD) age of the study subjects was 35.5 (\pm 20.4) years. About 217 (3.5%) had one or other symptoms suggestive of presumptive pulmonary tuberculosis, of which 26 had given sputum samples for CBNAAT examination. None of them were microbiologically confirmed to be tuberculosis. The number need to be screened (NNS) to identify one case of presumptive pulmonary tuberculosis was 29. The evening mops up activity contributed to 25.6% of the total surveyed population and helped in converting the X status of 56.2% of the locked houses of the morning round to Xn or T.

CONCLUSION: Proportion of presumptive TB subjects was less. The mop up round was significant in increasing the coverage of the survey.

KEY WORDS: Active case finding, CBNAAT, Mop up activity, Tuberculosis

Experience of Contact Tracing In A Dedicated Covid-19 Hospital in Puducherry

Lavanya B, Kavita Vasudevan, Anandaraj R

INDIRA MEDICAL COLLEGE AND RESEARCH INSTITUTE, PUDUCHERRY

BACKGROUND: Contact tracing is a core element of the public health response to emerging infectious diseases including COVID-19. It is the cornerstone of communicable disease containment which involves identifying, quarantining, and monitoring contacts of infected people. Although contact tracing can be resource and time-intensive, without immediate contact tracing, transmission in group settings can be widespread.

METHODS: A Descriptive study was conducted among 700 covid positive patients diagnosed in Puducherry during the first wave of COVID-19. All available participants were selected. Background information was collected telephonically using questionnaire modified from Contact tracing guidelines released by Ministry of health and Family Welfare, Government of India. Subjects who could not be traced or who could not be reached by phone were excluded. Continuous data was expressed in mean and standard deviation, categorical data was expressed in frequency and percentages.

RESULTS: The Mean (\pm SD) age of index case was 38.9 (\pm 18.1) years. Majority of them were

males (57.8%), Majority were symptomatic (55.4%). Majority had a contact with a known case of COVID (59.3%).

Epidemiological link was traced in 54% of the cases. 7.3% of the participants had travel history and 4.1% of the participants attended a mass gathering. The average number of contacts per index case was 6. of the total contacts 70.8% were household contacts and 29.2% were workplace contacts. Among the household contacts 90.8% were high risk contacts and among the workplace contacts 29.2 % were high risk contacts.

CONCLUSION: Contact tracing has proven to be effective in identifying the cases and limiting the infection transmission. Asymptomatic cases contribute to a substantial number of cases; therefore, contact tracing is essential for identifying the asymptomatic carriers and containing the disease spread. Contact tracing also help in finding the epidemiological link for the cases, which can help in preventing the clustering of cases.

KEY WORDS: COVID-19, Contact tracing , Puducherry

Impact of Covid Pandemic on Child Health in Urban Chennai

Tharshna Priya B, Sudarkodi B, Sujitha A, Dr. Krithiga S, Dr. Seenivasan P
GOVERNMENT STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Covid pandemic related health system restrictions, physical distancing measures had a substantial impact on routine immunizations, health seeking behaviour and nutrition of children globally. Hence this study aims to assess health seeking behaviour, immunization services.

METHODOLOGY: This was a hospital based cross sectional study conducted among 165 parents of children up to 10 years of age visiting Institute of Social Pediatrics OPD, Govt. Stanley Medical College between August 2022 and September 2022 using a semi-structured questionnaire by face-to-face interview during the pandemic from March 2019 onwards. Data was entered in MS EXCEL and analyzed using SPSS16. Chi-square test was used. P value <0.05 was considered statistically significant.

RESULTS: All 165 respondents (parents) stated that their child immunization was prioritized.

23.6% missed their regular immunization schedule in pandemic due to illness of the children (10.3%), restricted movement (9.1%), social distancing (5.5%), increased travel distance (5.5%), travel expenses (4.2%). 18.2% of the parents were not able to give adequate nutrition to their child and 20.6% of the parents were not able to get supplemental food from anganwadi due to COVID restrictions. 7.9% of the parents observed decrease in their children weight. Half of the study participants (52.1%) had no hesitation to immunize their child for COVID vaccine. Amidst all the pandemic situation and restrictions, 90.9% and 81.8% of the parents were able to provide proper childcare and nutrition.

CONCLUSION: The Immunization programme and child health services were resilient during the COVID pandemic, thanks to the sustainable organization coordinated by Government of Tamilnadu.

Descriptive Epidemiology of Dengue by Daily Fever Surveillance System in Thanjavur District 2012 - 2021

Dr. Adalarasi, Dr. Namasivayam, V. Gurunathan and Govindharaman
 DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Daily Fever Surveillance is a part of integrated disease programme from 2012. Data is collected on fever cases on daily basis. Use of Information Communication Technology for Collection, Collation, compilation, analysis and dissemination of data. Need of the study were sudden unexpected rise of Dengue cases in 2012, incidence of Dengue in Thanjavur District 186.7 per lakh and after 5 years another Dengue outbreak in 2017, incidence of Dengue in Thanjavur District 126.2 per lakh. We aimed to estimate the incidence of Dengue in Thanjavur district, 2012 – 2022 and describe Dengue in Thanjavur District by Yearly, blocks and person characteristics from 2012 to 2021

METHODS: Cross sectional study was conducted and Daily Fever Surveillance reports for ten years from 2012 to 2021 were used. Dengue incidence rates were calculated as number of new cases in the period divided by the population exposed in the period multiplied by 100000. The population used was based on projection population and incidence maps of Thanjavur District were created with QGIS

software. Dengue national guidelines, NVBDCP 2014 was used for case definitions.

RESULTS: Incidence of Dengue for the year of 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020 and 2021 was 186.7, 18.3, 12.4, 14.7, 13.3, 126.2, 13.4, 25, 5.4 and 16.5 per one lakh population respectively. Incidence of Dengue is higher in Urban than rural area throughout the reference period. Dengue incidences were higher in Thanjavur Corporation, Pattukottai Municipality, Thanjavur block and southern blocks of Thanjavur district throughout the reference period. Dengue incidence was more among the 21 to 30 years age group in 2012 – 2021. In all the ten years Dengue incidence was more in males than females.

CONCLUSIONS: Thanjavur District had burden of Dengue and we recommended to continue the regular control measures and monitor the surveillance system regularly

KEYWORDS: Dengue, Thanjavur, Surveillance

A Hospital Based Cross Sectional Study on Assessment of Stigma Among Tuberculosis Patients In Rural Tamil Nadu

Anu Pargavi J, Kirubhakaran S, Senthil Kumar R S

THIRUVARUR GOVERNMENT MEDICAL COLLEGE AND HOSPITAL,
OMANDHURAR GOVERNMENT MEDICAL COLLEGE AND HOSPITAL,

BACKGROUND: Tuberculosis (TB), the world health problem has been a dreadful disease that kills about 1.5 million every year while causing illness to around 10 million. Despite TB being a treatable and curable disease by proper diagnosis and medical treatment, stigma stands as a barrier from achieving complete elimination of TB.

OBJECTIVES: To assess the pattern of stigma present in tuberculosis patients 2) To correlate stigma pattern with their socio-demographic data for significance.

METHODOLOGY: Institution based cross sectional study. Sample size was calculated as 80 for the prevalence of 73%. Participants of the study were assessed for stigma using semi- structured, pre-coded and pre- tested questionnaire on the basis of Explanatory Model Interview Catalogue (EMIC). Simple descriptive statistical analysis was done.

RESULTS: Almost 76 (95%) shares about their illness to their family seeking an emotional support. only 24 (30%) were asked to stay away from work or social groups, while 69 (86.25%) decided themselves to stay away from work or social groups. These results prove the dominance of self-stigma perceived by the patients over social stigma. 58 (72.5%) answered that their sudden and significant loss of weight made people think that they have other health problems along with TB.

CONCLUSION: Tuberculosis affects the person psychiatrically as much as physical manifestations. TB is treated intensively with drug therapy to eliminate the bacteria from the body. The same way it must be treated psychologically by providing support and counselling to them.

KEYWORDS: Tuberculosis, Stigma, EMIC scale

Assessment of Lung Involvement Based on Hrct Score Among Vaccinated and Non-Vaccinated Covid-19 Patients Admitted in A Designated Covid-19 Hospital, Tamil Nadu – A Retrospective Study

Dr. R. Nivetha, Dr. Ramesh Harihara Iyer

STANLEY MEDICAL COLLEGE, DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: The first wave of the current pandemic COVID-19 affected senior citizens in larger numbers. So, we began its vaccination drive in India with either Covishield or Covaxin against COVID-19 for 45 years and older.

The study aimed at assessing and comparing the CT severity among COVID-19 patients based on their vaccination status and comorbid illness influencing the severity of lung involvement using HRCT reports among the study participants.

MATERIALS AND METHODS: A Hospital records-based –retrospective study was conducted among COVID-19 patients and the information on their vaccination status, the severity of lung, and comorbid illness. The study participants were selected by consecutive sampling method and the sample size reached 120 patients in a 2months period. The chi-square test was applied for testing the hypothesis.

RESULTS: A total of 120 patients' records were collected in 2-month period of which 72% were male, 48% female and the mean age was 57.9 years. Our study compared the vaccinated and non-vaccinated individuals; it revealed 37% of non-vaccinated patients had more lung involvement whereas among vaccinated individuals 3% which was statistically significant (p-value – 0.0001). Similarly male gender (p-value – 0.0001) and the patients with comorbid illness (P-value – 0.018) showed more lung involvement in our study whereas the age factor has not shown significance in our study.

CONCLUSION: Our study shows that lung involvement based on CT scan among nonvaccinated patients were more compared to vaccinated patients. Hence COVID vaccination is a key to reduce mortality and morbidity in this pandemic.

KEY WORDS: Vaccination, COVID-19, CT Severity

Deworm3: Testing The Feasibility of Interrupting The Transmission of Soil-Transmitted Helminths

Rohan Michael Ramesh, Saravanakumar Puthupalayam Kaliappan, Gideon John Israel, Kumudha Aruldas, Jayaprakash Muliylil, William Edward Oswald, Katherine Elizabeth Halliday, Sean Galagan, Arianna Rubin Means, Kristjana Hrönn Ásbjörnsdóttir, Gagandeep Kang, Judd L Walson, and Sitara SR Ajjampur

CHRISTIAN MEDICAL COLLEGE, VELLORE, INDIA,
 LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE, LONDON, UNITED KINGDOM
 UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON, USA

BACKGROUND: India is estimated to have the highest number of soil-transmitted helminth (STH) infections (~375 million), with an estimated 98.6 million hookworm infections. The current WHO strategy is focused on controlling morbidity with targeted deworming of pre-school and school-age children and other at-risk populations. Mathematical models have shown that community-wide mass drug administration (cMDA) of all ages would be effective in interrupting the transmission of STH.

METHODS: The DeWorm3 study is an ongoing cluster-randomized trial in Benin, India, and Malawi to assess the feasibility of interrupting transmission of STH with six rounds of biannual cMDA with Albendazole compared to the standard of care, school-based deworming (National deworming day) 1-3.

In India, this study is implemented in Timiri, Ranipet, and Jawadhu hills, Tiruvannamalai in Tamil Nadu (~141,000 population, 37,000 households) since 2017.

RESULTS: The prevalence of STH (assessed by Kato Katz) was 21.4% (95% CI: 20.4–22.4)

when weighted by age and cluster size at the start of the study. Only 1.2% (72) were found to have moderate and heavy intensity hookworm infections. The site was then randomized into 20 intervention and 20 control clusters, and six rounds of cMDA were carried out from 2018-2020. Following each round of cMDA, coverage evaluation surveys showed >90% coverage in nearly all six rounds except the fifth round (February-March 2020), where the coverage was 83.6% due to the national lockdown imposed to control the COVID-19 pandemic.

CONCLUSIONS: The impact of cMDA intervention will be assessed using qPCR of stool samples collected from a random sample of cluster residents 24 months after the final round of MDA. This ongoing endline cross-sectional assessment from 40,000 participants will be used to identify whether or not transmission interruption has been achieved at a cluster level (defined as a cluster-level point prevalence $\leq 2\%$ of any STH species by qPCR)

KEYWORDS: Neglected tropical diseases, mass drug administration, soil-transmitted helminth.

Risk of Covid-19 Re-Infection and Its Predictors – A Community- Based Longitudinal Cohort Study in Vellore, Tamil Nadu, India

Jackwin Sam Paul G, Ramya Madhavan, Sudhir Babji, Dilesh Kumar, Isaithamizh, Jerard Selvam, Prasanna Samuel Premkumar, Jacob John, Gagandeep Kang

CHRISTIAN MEDICAL COLLEGE AND HOSPITAL, VELLORE, NATIONAL HEALTH MISSION, CHENNAI,

BACKGROUND: The implications of prior infection and vaccination on future risk of COVID-19 require better characterization in LMICs. The Risk of COVID-19 re-infection and its predictors (CORES) study investigated the risk of primary and re-infection among those without and with evidence of prior exposure or vaccination to SARS-CoV2 in a prospective community-based cohort.

METHODS: Based on an expected seropositivity rate of 50% in the population, an annual attack rate of 12%, 6%, 4.8% and 4% among unvaccinated seronegatives, vaccinated seronegatives, unvaccinated seropositives, and vaccinated seropositives respectively, a cohort of 1228 randomly selected adults were recruited and baseline SARS-CoV2 antibodies were assessed. Weekly self-collected saliva samples were tested by RT-PCR to detect SARS-CoV2 infections and symptoms were recorded. Seroprevalence at baseline, rates of primary infection and re-infection and the predictors of re-infection were analyzed using longitudinal analysis.

RESULTS: Participants were enrolled between May and October 2021 (seroprevalence 70%), and 61,946 (95.2% of expected) weekly salivary

samples were collected until 22nd August 2022. Until 20th December 2021, the risk ratio (RR) for SARS CoV-2 infection of seronegative individuals compared to seropositive people was 3.77 [95%CI 1.31,10.82], in those who were vaccinated (once or twice) was 0.52 [0.18, 1.45] compared to the unvaccinated group. Another serosurvey was done in December 2021 and seroprevalence was 78% (915/1166) with 808 vaccinated individuals. An upsurge of cases indicating the onset of the Omicron wave was observed by late December 2021. During this wave, the respective RRs for seronegative status and ever vaccinated were 1.38 [95% CI 1.14,1.66] and 0.763 [0.636,0.921]. Between March 2nd and August 22, 2022 (post-Omicron period), the respective RRs [95% CI] for seronegative status, and ever vaccinated were 1.13 [0.68,1.77], and 0.95 [0.62, 1.50] based on the last done serology.

CONCLUSION: Primary infection and vaccination were protective against a re-infection during the Delta and Omicron waves, but immune escape occurred during the post-Omicron period.

KEYWORDS: COVID 19, Cohort, Re-infection, Vaccination

Implementation Science Research: Deworm 3 Study, India

Kumudha Aruldas, Saravanakumar Puthupalayam Kaliappan, Angelin Titus, Jabaselvi Johnson, Malvika Saxena, Judd L. Walson, Arianna Rubin Means, Sitara SR Ajjampur
 CHRISTIAN MEDICAL COLLEGE, VELLORE, INDIA,
 UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON, USA

BACKGROUND: DeWorm3 study is an ongoing cluster-randomized trial in Benin, India, and Malawi to assess the feasibility of interrupting transmission of soil-transmitted helminths (STH) with six rounds of biannual community-wide mass drug administration (cMDA) of albendazole compared to the standard of care, the school-based MDA. In India, this is being implemented in Timiri block of Ranipet district and Jawadhu Hills block of Tiruvannamalai district since 2017. The implementation science (IS) research, embedded within the trial, aims to identify implementation-related barriers and facilitators, map the intervention delivery process, and quantify the health system readiness to deliver cMDA.

METHODS: The data was collected using various tools at different timepoints – (a) stakeholder mapping tool (baseline and endline) to identify stakeholders who influence the outcomes of the intervention; (b) qualitative research (baseline, midline, and endline) using Consolidated Framework for Implementation Research to identify factors influencing implementation quality, feasibility, and sustainability; (c) process mapping tool (baseline and annual) to identifying activities

performed to achieve high treatment coverage; and (d) routine workflow tracker (biannual) to quantify the key activities performed, and (e) readiness survey instrument (baseline and endline) to evaluate health system readiness to scale-up and sustain the intervention.

RESULTS: A positive attitude was observed among the stakeholders for mapping showed STH cMDA. The qualitative research showed that community members believed that adults should be dewormed. An average of 47.5 activities were documented in the process map, of which they were for planning (28.2%), drug supply chain (23.5%), community sensitization (19.8%), cMDA delivery (12.5%), training (9.8%), and monitoring & evaluation (5.4%). Organizational readiness score for change in the baseline was high (range: 4-5 out of 5).

CONCLUSION: The evidence indicated positive attitude to cMDA, major activities are planning, drug supply chain, and community sensitization, and high level of system readiness to scale-up cMDA for STH.

KEY WORDS: Mass Drug Administration, soil-transmitted helminths, DeWorm3 study, Implementation Science

Functionalization of Carnosine Nanoclusters for Potential Therapeutic Application in Pulmonary Infections

Natarajan Saravanan, Nagarajan Usharani

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

BACKGROUND: The respiratory tract is the major site for the development of contactable ailments. The etiology this ailment indicates the accumulation of excessive protein fluid in alveolar sacs. Biofabrication of natural materials in addressing the anti-inflammatory effect in the lungs is still a challenging for pulmonary tuberculosis. Here, we aimed to develop and characterize a nanodelivery system for bio-applications from carnosine dipeptide (CDP), a natural compound with anti-inflammatory activity.

METHODS: In this study, CDP is converted into carnosine nanoclusters (CNC) in the presence of hydrophobic amino acid (L-phenylalanine/ α -Glutamic acid / α -lysine as the hydrophobic segment at varying pH 4,7 and 9) and water-soluble carbodiimide. The size of CNC in suspension and its morphology in different pH were analyzed in triplicates and the mean value is presented.

RESULTS: The hydrodynamic size (200 nm) of CNC with phenylalanine at pH 9 seems to be highly influenced by the side chain

distribution which is confirmed through UV analysis and FTIR spectra. The phenylalanine ring contributes significantly to the absorption at 260 nm in the basic pH. Here, the self-assembling transitions on the aromatic group of phenylalanine are more effective than amide of lysine and carboxylic of glutamic acid. It can be seen from the morphology that the highly dispersed CNC appeared without any agglomeration. It is also observed that the ionic exchange plays a major role in structural transformation and its size determination.

CONCLUSION: Tubular self-assemblies in CNC involve N-H/O interactions, p-p, C-H/p, and van der Waals interactions. The findings suggest that the functional groups of the dipeptide backbone determine the nature of self-assembly by controlling various inter and intramolecular interactions with pharmaceutical agents. Thus, this novel self-assembled nanostructure may be potentially exploited as a drug carrier for targeted drug delivery applications in pulmonary tuberculosis.

KEYWORDS: Carnosine, Nanoclusters, Self-Assembly, Pulmonary Tuberculosis

Designing The First of Its Kind District Level Tb Prevalence Survey in Tamil Nadu, India

**Prathiksha Giridharan, Sriram Selvaraju Asha Frederick Kannan
Thiruvengadam, Rajendran Krishnan, Priya Rajendran, Karikalan Nagarajan,
Paul Kumaran P, Makesh Kumar M, Padmapriyadarsini Chandrasekaran**

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

BACKGROUND: National TB Prevalence survey in India was launched in 2019 to estimate the National and State level prevalence. The National Health Mission, TN Government, took a bold decision to fund NIRT to estimate the district level TB prevalence in Tamil Nadu during the period 2021-22.

METHODS: We planned a cross sectional survey using cluster design in 180 clusters in all districts of Tamil Nadu. We used Probability Proportional to size for selection of clusters from census 2011 with 800 participants in each cluster, covering 114000 population. Participants were screened for symptoms and underwent Chest X ray which was read by a panel of experts. Symptomatic participants, those with a past history of TB and those currently on TB treatment with/without CXR abnormality underwent sputum test by CBNATT, smear and culture. Six teams surveyed all the districts using the mobile X-ray vans and the sputum samples were tested in NTEP labs. The data was collected using android tablets at the field

and survey progress was monitored through a central dashboard, field visits and periodic review meetings.

RESULTS: The shared resources and technical expertise from the different agencies facilitated the implementation of such a survey within a defined time frame. We plan to analyze the Prevalence of Microbiologically confirmed TB for all the districts after adjusting for cluster design, extra pulmonary TB for all ages and TB among pediatrics age group from the TB notifications in NIKSHAY.

CONCLUSION: The first district level survey in Tamil Nadu was conducted completely with internal funding from the State government. This survey stands out as a model for planning a district level prevalence estimation for monitoring the progress to END-TB targets and National Strategic Plan of India.

KEYWORDS: Tuberculosis, Prevalence, District-level, Tamil Nadu

Social and Personal Factors Affecting Leprosy Detection in Rural Community of Tirunelveli in Tamil Nadu

**Dr. P. Nirmaladevi, Dr. K. Sunitha, Dr. K. Shantaraman,
Dr. P. Manickam, Dr. J. Yuvaraj, Dr. Manoj Murhekar**

TIRUNELVELI MEDICAL COLLEGE NATIONAL INSTITUTE OF EPIDEMIOLOGY, CHENNAI

BACKGROUND : Active leprosy case detection campaigns (LCDC) still detect more, new child and adult cases. This could be due to gaps in early diagnosis, knowledge and/or psychosocial stigma about the disease, its name or its sequelae.

OBJECTIVES: 1) To describe socio-behavioural factors affecting leprosy detection and help seeking behaviour among patients and their family members 2) To estimate the level of knowledge of patients or the caretakers about leprosy.

MATERIALS & METHODS: Study was conducted under model rural health research unit (MRHRU) mentored by ICMR- NIE, Chennai. Patients detected by LCDC Campaign during the fiscal years 2018-19 and 2019-20 from the line-listed cases of District leprosy office of Tirunelveli belonging to HUD rural blocks. Data were collected using pre-piloted and validated case record form by house visits or in PHCs, by secondary data collection as well as patient or LAR interview (questionnaire based) after obtaining written consent.

RESULTS: of the total 43 cases, 70% were adults & 30% were children. PB cases were 67.4% & MB cases were 32.6%. Children were more detected in LCDC when compared to

routine practice by NLEP. Delay in diagnosis since onset was 3 months to 18 months in majority & 1 to 4 years in others. Factors affecting early detection were found to be- i) Lack of knowledge: 61% had ignored the patches even though the patches were on the visible sites and 50% still carry misconception about its spread (water, touch or animals). And 60% still don't know about its aetiology ii) Self stigma: 47% were ashamed of the diagnosis iii) In 20%, the delay was due to non-detection by medical officers (including allopathic & alternate systems) iv) Socio-behavioural issues about the diagnosis itself still persist; most treated patients were told that the treatment is for the skin patches but not told exactly about the disease diagnosis anticipating the patients' reluctance for treatment or discontinuation or stigmatization.

CONCLUSION: Leprosy still evokes strong psychosocial and self-perceived stigma which in addition to lack of knowledge about the disease nature delays detection. Addressing the gap among all stakeholders is the need for final push against leprosy to fulfil the targets envisaged by the WHO for the current decade.

KEYWORDS: Leprosy, Delay in Detection, Knowledge & Stigma, Help-seeking Behaviour, Rural Community

Tuberculosis in Cattle and Wild Ungulates Caused by Mycobacterium Tuberculosis Complex Organisms in Chennai, India - Need for one Health Approach

Harini Ramanujam, Ahmed Kabir Refaya, Mahaprabhu Ramalingam Ganne Venkata Sudhakar Rao, Dhandapani Ravikumar, M. Devi Sangamithrai, Sivakumar Shanmugam, Kannan Palaniayndi

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, MADRAS VETERINARY COLLEGE,

BACKGROUND: Bovine tuberculosis (bTB) is a chronic illness that chiefly affects cattle and other animals. Here we report the isolation of Mycobacterium tuberculosis complex organisms (MTBC), namely *M. tuberculosis* and *M. orygis* from slaughtered cattle and free-ranging wild ungulates, i.e., three black bucks (*Antelope cervicapra*) and one spotted deer (*Axis axis*) from the Guindy National Park, Chennai

METHODOLOGY: A total of 153 lymph node (LN) samples (85 bronchial LN and 68 mediastinal LN) were collected from 113 slaughtered cattle. Post-mortem lung and LN samples showing visible lesions were collected from the wild ungulates following natural death. Culture, molecular (PCR and spoligotyping) and whole genome sequencing methods (WGS) (Illumina) were used for species identification. WGS results were assessed with Galaxy/vSNP. Phylogenies were constructed with RAxML. RD Analyzer and RDScan were used to localize the regions of difference (RD) within the sequences

RESULTS: Six out of 113(5.3%) cattle were positive for MTBC, of which *M. tuberculosis* was isolated from one animal, and *M. orygis*

from the other five. All four wild ungulates were positive for *M. orygis*. Strikingly, no *M. bovis* was found. WGS and phylogenetic analyses show that the isolates recovered have relatively restricted genetic diversity consistent with cattle-to-cattle transmission. RD analyses confirmed an intact RD1, presence of RD4 and deletion of RD7-RD10 in all *M. orygis* isolates. An intact RD239 and RD236a region was seen in the *M. tuberculosis* isolate.

CONCLUSION: Our studies suggest that bTB in India is likely to be different from elsewhere. Bovine TB caused by other members of the MTBC, particularly *M. tuberculosis* posits human-animal transmission. For the successful implementation of the One Health approach, the zoonotic and reverse zoonotic potential of the disease should be considered. The urgent unmet need to better understand the epidemiology of bTB and develop rational strategies to accelerate its control needs to be addressed.

KEYWORDS: Mycobacterium orygis, bovine tuberculosis, wild ungulates, Zoonosis

Distribution of IS6110 Insertion Sites and its Effect on Gene Regulation in Mycobacterium Orygis

Ahmed Kabir Refaya, Umashankar, P. Kannan
 NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

BACKGROUND: Insertion sequence IS6110 are found at multiple sites in the Mycobacterium tuberculosis complex (MTBC) genomes leading to higher degree of polymorphism and thereby play a crucial role in genome plasticity and bacterial evolution. IS6110 spanning genomic regions serve as a useful molecular marker for diagnosis and strain typing of MTBC. Recently, Mycobacterium orygis (M. orygis) belonging to MTBC has been receiving considerable importance in one-health aspect, as it has been contemplated to cause zoonotic tuberculosis. Hence, in this study, we aim to identify the abundance and location of IS6110 insertion sites on M. orygis genome and decipher its effects on gene regulation.

METHODS: ISMapper (version 2.0.1) pipeline was used to identify IS6110 region on genome short-read sequences using H37Rv (NC_000962) as a reference genome. DAVID enrichment analysis using gene ontology terms was performed on 61 genes spanning the upstream and downstream of IS6110 sequences in order to identify any functional specificity associated with these insertions. A comprehensive data analysis was carried out on

a total of ~70 on M. orygis genome sequences available in the NCBI Database including 10 M. orygis strains isolated from Cattle and Deer in Chennai region. Phylogenies were constructed with vSNP, and the lineage was inferred through iTOL.

RESULTS: The results infer that all M. orygis isolates to possess a high copy of IS6110 ranging from 13 to 22 copies per genome except for one (SRR10321152) which did not have any IS6110 hits. A total of 61 insertions were identified, among which 26 were intergenic and 35 intragenic regions. Most of the genes were classified using COGs map and were found to map with classes: cell motility, carbohydrate transport and metabolism, lipid metabolism, energy production and conversion, transcription, and cell envelope biogenesis. KEGG pathway analysis also identified some genes to be involved in the Arginine and proline metabolism.

CONCLUSION: This study provides novel insights on IS6110 insertions, the preferential insertion regions and possible effect on gene regulation in M. orygis genome.

Self-Reported Prevalence of Tuberculosis: Unveiling Spatial Patterns in The Districts of Tamil Nadu

Malaisamy Muniyandi, Prabavathy Gopalakrishnan, Nagarajan Karikalan, Chandrasekaran Padmapriyadarsini
 ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, CHENNAI

BACKGROUND: In the absence of periodic national or state level prevalence or incidence of TB in India there is a need for using alternate sources of data to measure the burden of TB disease in the population to inform policy makers and programme managers.

OBJECTIVES: To estimate the self-reported prevalence of TB in the districts of Tamil Nadu using the data of National Family Health Survey (NFHS) conducted during 2014–15 and 2019–21.

METHODOLOGY: NFHS conducted by International Institute for Population Sciences, Ministry of Health and Family Welfare provides information on population, health, and nutrition for India. NFHS-4 (2014-15) and NFHS-5 (2019-21) provides district-level estimates for many important indicators. For the current study we used NFHS-4 and NFHS-5 to estimate district wise prevalence of TB in Tamil Nadu. Based on the data collected prevalence of TB per 100000 population calculated and compared the TB prevalence between NFHS-4 and NFHS-5 surveys. It was also illustrated

with the help of spatial geographic patterns for various districts of Tamil Nadu using R software.

RESULTS: A total 26,033 and 27,929 households covered, among them 324 and 159 TB patients reported by NFHS-4 and NFHS-5 respectively. Overall self-reported cumulative prevalence of TB was 320 and 166 per 100000 population in NFHS-4 and NFHS-5 respectively. In NFHS-4, the prevalence of TB was ranged from 55 to 663 in Krishnagiri and Kancheepuram. In NFHS-5 it was ranged from 31 to 392 in Krishnagiri and Tirunelveli. The spatial analysis indicated unbalanced geographical distribution of prevalence of TB in Tamil Nadu.

CONCLUSION: This study highlights the geographical areas with high rates of crude self-reported cumulative prevalence of TB. This information would be useful for the state and district programme managers to identify areas of high prevalence of TB where intervention can be focused.

KEY WORDS: Tuberculosis, self-reported prevalence, spatial distribution, geographical pattern, Tamil Nadu

Structure-Based Design of Hiv-1 Neutralizing Peptides Targeting Cd4- Binding Site: an Insilico Approach

Sandhya Vivekanandan, Umashankar Vetrivel, Luke Elizabeth Hanna,
 ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

BACKGROUND: Despite substantial development in anti-Retroviral Therapy and immuno-therapeutics in HIV treatment, emergence of drug resistance still remains a challenge. Peptide therapeutics has recently gained momentum in antiviral therapies due to its potency and cost-effectiveness. It is an established fact that Interaction of HIV-1 envelope gp120 with the host's CD4 receptor is critical for viral entry. Thus, the CD4-binding site (CD4bs) of gp120 is a potential hotspot for targeting HIV-1.

METHODS: Therefore, the present study is aimed to derive short peptides from well-characterized CD4bs targeting broadly neutralizing antibodies (bNAbs) that could be utilized as bNAb mimetics for viral neutralization. Hence, Co-crystallized structures of HIV-1 gp120 in complex with CD4bs-directed bNAbs were used to derive hexameric peptides through Rosetta pepti-derive protocol. To ensure binding efficacy, the identified peptides were docked with HIV-1gp120 using HADDOCK and the interaction patterns

were probed using PDBsum. Moreover, the stability of peptide-antigen complexes was also validated using extensive Molecular dynamics (MD) simulation.

RESULTS: By this study, four peptides were shortlisted based on stringent filtration process, among which two were from heavy and other two from light chains. The peptides derived from heavy chain of the antibody demonstrated stable interactions with SER365, GLY366, GLY367 of the PHE43 cavity, and also with ASP368 of HIV-1 gp120, thus mimicking the ASP368gp120-ARG59CD4-RECEPTOR interactions. Furthermore, MD simulation also inferred that the peptides to target the CD4-induced epitopes through stable intermolecular interactions with significant binding affinities and favourable physico-chemical properties.

CONCLUSION: All these findings are strongly suggesting the neutralization potential of the designed peptides and shall form a solid feeder for experimental validation as NAb mimetics targeting HIV.

Nasopharyngeal Carriages of *Streptococcus Pneumoniae* in very low Birthweight Infants before and after Administration of Pcv13 (Pneumococcal Conjugate Vaccine)

Dr. Vidhu Varsha

INSTITUTE OF CHILD HEALTH AND HOSPITAL FOR CHILDREN

BACKGROUND: *Streptococcus pneumoniae* is one of the most common pathogens causing high rates of morbidity and mortality, with the largest public health concern and economic impact among developing countries. The Mortality rate of Pneumonia among Under 5 age group was 5/ 1000 live birth in the year 2020.

OBJECTIVE: To identify the Prevalence of *Streptococcus pneumoniae* serotypes in Nasopharyngeal colonization of Very Low Birth Weight infants (pre- and post- PCV13 vaccination).

METHOD: Prospective Cohort study was conducted among 106 Very Low Birth Weight infants at the Institute of Child Health and Hospital for Children, Chennai from April 2020 to July 2021. After obtaining informed consent from the parents, Nasopharyngeal swabs were collected at 6th week (pre- vaccination), 18th week and at 9th month (post- vaccination) and were subjected to culture in Enrichment medium and serotyping by Quellung reaction.

RESULT: In this study male and female participants were nearly equal. Mean Birth Weight was 1.306 Kg. Among the 106 study participants, 3.8% were culture positive before vaccination, 8.5% were positive in the 18th week and 16% in the 9th month. The Prevalence of Vaccine-tyable serotypes before vaccination was 75%, after primary series vaccination in the 18th week was 44.4% and, in the 9th, month was 23.5%.

CONCLUSION: Prevalence of serotypes was detected for the first time in Very Low Birth infants and this study concluded that Vaccination helps in reducing the prevalence of vaccine tyable serotypes and helps in decreasing the burden of pneumococcal diseases. Among the new strains (non-vaccine tyable) that were identified 35B was more prevalent in the 9th month, indicating that environmental exposure led to increase in Prevalence of non-vaccine tyable serotypes.

KEYWORDS: Pneumococcal Conjugate Vaccine, serotype, Very Low Birth infants.

Assessment of Post - Covid Syndrome Among Symptomatic and Asymptomatic Cases: A Cohort Study in a Tertiary Care Hospital, Puducherry

Venkatachalam
PUDUCHERRY

BACKGROUND: Post-COVID syndrome refers to symptoms persisting for more than 3 months after the diagnosis of COVID-19 (1). Fatigue, shortness of breath, chest pain, mental disorders, olfactory and gustatory dysfunction are the most common symptoms (2). This study aims to compare the incidence of Post-COVID Syndrome among patients who received oxygen (moderate to severe) with those who didn't receive oxygen (mild and asymptomatic cases).

METHODS: A Community based ambidirectional cohort study was planned to conduct during March 2022 to March 2023. Sample size obtained was 1162 using nMaster version 2.0 by assuming the proportion of residual dyspnoea of 7% among symptomatic and 5% among asymptomatic COVID cases and 80% power with 95% CI. A total of 1162 study participants were selected using simple random sampling out of which, 581 asymptomatic

to mild and 581 moderates to severe cases were allocated in each group by assuming an allocation ratio of 1:1. Data was collected using a structured questionnaire in Epicollect5 and the data analysis was done using IBM SPSS version 22.

RESULTS: This is an interim analysis of an ongoing cohort study. Among 921 total COVID cases, 346 (37.6%) are exposed and 575 (62.4%) are non-exposed. Incidence of PCS among severe and non-exposed were 68.4% 33.6% respectively. This difference is found to be statistically significant at the p value of < 0.001 with a RR of 4.3 (95% CI: 3.3 – 5.8).

CONCLUSION: Incidence of PCS is more among moderate and severe cases as compared to mild cases and asymptomatic cases.

KEYWORDS: Post COVID syndrome, long term, cohort study

Role of Matrix Metalloproteinases In Multi-System Inflammatory Syndrome and Acute Covid-19 in Children

Nathella Pavan Kumar, Aishwarya Venkataraman, Poovazhagi Varadarjan, Arul Nancy, Anuradha Rajamanikam, S. Murugesan, Elilarasi Chelladurai, Thankgavelu Sankaralingam, Kannan Thiruvengadam, Ramya Selvam, Akshith Thimmaiah, Suresh Natarajan, Ganesh Ramaswamy, Sulochana Putlibai, Kalaimaran Sadasivam, Balasubramanian Sundaram, Syed Hissar, Uma Devi Ranganathan and Subash Babu

NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS,
 INSTITUTE OF CHILD HEALTH AND HOSPITAL FOR CHILDREN, DR.MEHTA'S CHILDREN'S HOSPITAL,
 RAINBOW CHILDREN'S HOSPITAL, KANCHI KAMAKOTI CHILDS TRUST HOSPITAL

BACKGROUND: Multisystem Inflammatory Syndrome in children (MIS-C) is a serious inflammatory sequela of SARS-CoV2 infection. The pathogenesis of MIS-C is vague and matrix metalloproteinases (MMPs) may have an important role. To elucidate the role of MMPs and pathogenesis in groups of children with MIS-C, acute COVID-19, convalescent COVID-19 and children with other common tropical diseases.

METHODOLOGY: It's a cross-sectional study to examined the circulating levels of MMPs using the plasma samples in children presenting with MIS-C (n=65) and acute COVID-19 (n=56) and compared them to convalescent COVID-19 (n=47), children with other common tropical diseases (n=40) (with overlapping clinical manifestations) and controls (n=21) at during baseline.

RESULTS: Children with MIS-C had elevated levels of MMP-1, 2, 3, 7, 8, 9, 12 and 13 in comparison to acute COVID-19, other tropical diseases (Dengue fever, typhoid fever, and scrub typhus fever) convalescent COVID-19 children and control children. PCA and ROC

analysis (sensitivity 84-100 % and specificity 80%-100%) showed that MMP- 8, 12, 13 could help distinguish MIS-C from acute COVID-19 and other tropical diseases with high sensitivity and specificity. Among MIS-C children, elevated levels of MMP-1, 2, 3, 7, 8, 9, 12 and 13 were seen in children requiring intensive care unit admission as compared to children not needing intensive care. Similar findings were noted when children with severe/moderate COVID-19 were compared to children with mild COVID-19. Finally, MMP levels exhibited significant correlation with laboratory parameters, including lymphocyte counts, CRP, D-dimer, Ferritin and Sodium levels.

CONCLUSION: Our findings suggest that MMPs play a pivotal role in the pathogenesis of MIS-C and COVID-19 in children and may help distinguish MIS-C from other conditions with overlapping clinical presentation. Future studies to corroborate our findings should serve to confirm the role of MMPs as both biomarker and pathogenetic factor of disease in MIS-C and COVID-19 in children.

KEYWORDS : MIS-C, COVID-19, seropositive, MMPs

Modulated Pro-Inflammatory Immune Response and Factors of Tissue Damage in Pbmcs Isolated from Tuberculosis Treatment Failures

Sam Ebenezer Rajadasa, Christy Rosaline Nirmala, Padmasini Elongoa, Sivakumar Shanmugama, Luke Elizabeth hannab, Azger Dusthacker
 ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

BACKGROUND Host immune response to Mycobacterium tuberculosis infection varies from case to case. Such immune modulation may cause a differential polarization of macrophages either towards M1 or M2, even though a perfect balance of both populations is beneficial. Previously we observed immune modulation in lineage of MTB clinical isolates. Hence in this study was intended to find out whether the modulation of the immune response occurs during treatment failure and cure.

METHODS: In vitro 3D granuloma model was used to study the interactions between the PBMCs from (TB treatment failures and cured group) and TB clinical isolates from the respective group of patients. PBMCs from respective patients stored in the repository were infected with the clinical isolates isolated from the same patient (n=10 each group). Post eight days of infection, immune modulation indicators like differential expression of cytokines and

markers of macrophage polarization, and tissue damage were studied using quantitative PCR.

RESULTS M1 polarization (iNoS) and increased expression of pro-inflammatory cytokines were observed in the treatment failure group along with MMP9 production. M2 polarization (Arg) was observed in the cure category with comparatively lesser MMP9 expressions.

CONCLUSION: Increased expression of tissue damaging factors like matrix metallo proteases (MMP9) and pro-inflammatory cytokines were observed during disease by strains isolated from the patients who succumbed to TB. Further real-time scientific interventions are required in more samples to predict the modulation of the immune response in the Tb patients during treatment failure and cure.

KEYWORDS: Tuberculosis; Treatment outcome; immune modulation; granuloma;

Stigma Among Tb Patients and its Associated Factors - A Community Based Mixed Method Study on Tb Patients in Puducherry

Lavanya B, Kavita Vasudevan, Anandaraj R

INDIRA MEDICAL COLLEGE AND RESEARCH INSTITUTE, PUDUCHERRY

BACKGROUND: Stigma and associated discrimination experienced by persons affected by TB is a barrier to TB elimination. Increased understanding of stigma is necessary for taking appropriate interventions to minimise the effects of TB stigma. Hence this study was conducted among TB patients to measure the prevalence of self, anticipated and experienced stigma and its associated factors and to explore the manifestations of Tuberculosis related stigma

METHODS: A Sequential Explanatory Mixed Method study was conducted among 420 drug sensitive adult tuberculosis patients (non-HIV) registered under NTEP in 2021 in Puducherry district. Subjects were selected consecutively till the desired sample size was achieved. Questionnaires were adapted from ILEP & STOP TB. For qualitative part In-depth interviews was done till point of saturation. The interview guide was derived from STOP TB and modified. Descriptive and analytical statistics were done for the quantitative data while thematic content analysis was done for qualitative data. Prior ethical approval obtained.

RESULTS: Mean (\pm SD) age was 44.5 (\pm 15.03) years. Majority of the participants

were males (63.6%), literates (75.9%), married (78.6%) and belonged to lower socio-economic class (50%). Prevalence of any type of stigma was 69.3%, perceived stigma was 40.2%, anticipated stigma was 47.1% and experienced stigma was 26.0%. Educational status and health seeking behaviour was significantly associated with stigma. There was no significant association between stigma and age, gender, socio-economic status, co-morbid status, substance abuse. Thematic analysis revealed acts of self-isolation, fear of disclosure, feelings of embarrassment and shame. Key drivers of TB stigma were association of TB with HIV/AIDS and the fear of TB transmission.

CONCLUSION: Stigma among TB patients was high. Intense ACSM activities with tailored interventions to address stigma and discrimination using culturally appropriate and locally available resources is necessary. It is important to emphasize social support during patient- provider interactions to reduce anticipated stigma.

KEY WORDS: Anticipated stigma; Experienced stigma, Perceived stigma; Tuberculosis patients.

Drinking Water Quality and Incidence of Diarrhoea in Children <15 Years in an Urban Community of Vellore, South India: Findings From a Longitudinal Pediatric Cohort

Manikandan Srinivasan, Samarasimha Reddy N, Kulandaipalayam Natarajan Sindhu, Santhosh Kumar G, Karthikeyan Ramanujam, Sathyapriya Subramaniam, Gagandeep Kang and Jacob John
 CHRISTIAN MEDICAL COLLEGE, VELLORE

INTRODUCTION: India has been able to achieve access to basic drinking water and sanitation with a coverage of 88% and 57%, respectively, by 2015. Continued monitoring of the burden of diarrheal illnesses in children is important to assess the impact of the continual WASH expansion in the Indian setting.

METHODS: The ‘Surveillance for Enteric Fever in India’ longitudinal cohort of 6760 children, aged between 6 months and 15 years was followed up in urban Vellore, south India for typhoid and paratyphoid fever between 2017-19. Field research assistants contacted caregivers of these children on a weekly basis to elicit diarrheal illness in the preceding week. As a part of SEFI environmental surveillance, drinking water samples were collected from study households to test for coliforms. Information on sociodemographic characteristics including drinking water facility, sanitation and hygiene practices were collected.

RESULTS: The estimated incidence of diarrhea in the 6501 children followed up

between November 1, 2017 and October 31, 2019 was 31.1 episodes per 100 CYO, with children in the age group of 6 months and <5 years having a higher incidence of diarrhea than those aged between 5 and 15 years (58.6 versus 22 episodes per 100 CYO). Majority of children, 5769 (89.2%) had access to the public distribution system for drinking water. Of the 1581 drinking water samples tested, 1176 (74.4%) samples had coliform counts >10,000/100 ml. Multivariable analysis showed that those children aged <2 years, residing in areas with crowded settlements, using public distribution system for drinking water and from households with poor hygiene practices had a higher risk for diarrhoea.

CONCLUSION: Approximately 8 in 10 children do not have safe access to drinking water putting them, especially the under-5 children at a high risk for diarrheal illnesses. Improvement in WASH is pivotal in reducing the burden of diarrheal illnesses.

KEYWORDS: Children, Diarrhea, Drinking Water, Incidence, India, Surveillance

Effect of Metformin on Changes in Pulmonary Function after Treatment for Pulmonary Tuberculosis

Poornagangadevi Navaneethapandian, Dinesh Asokan, Anant Mohan, Tamizhselvan, Jeyadeepa, Devarajulu Reddy, Pavankumar, RK Shandil, Manjula Singh, Padmapriyadarsini Chandrasekaran

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, CHENNAI
 ALL INDIA INSTITUTE FOR RESEARCH IN TUBERCULOSIS, NEW DELHI

BACKGROUND: The addition of host-directed therapy (HDT) to the tuberculosis regimen may lessen lung damage and enhance lung function. We proposed a study to assess the pulmonary impairment by spirometry of the treated sputum smear positive pulmonary TB patients after completion of treatment with 6-months of first-line anti-tuberculosis drugs of Rifampicin, Isoniazid, Pyrazinamide and Ethambutol with or without metformin in the intensive phase of ATT.

METHODOLOGY: All successfully TB treatment completed patients from the trial sites in New Delhi and NIRT were included at 12-month interval following the last dose of their TB treatment. After systemic examination, a Chest X ray, two sputum examination by smear and culture for tubercle bacilli and Pulmonary function test (PFT) by Spirometry were done including 10 ml of blood for immunological impact assessment.

RESULTS: of the total of 163 cases, 123 (75.5 %) were males with mean age being 34.51 yrs (± 11.64), the main symptoms being cough (13, 8.0%); Smoking history in 56 (34.4%) of participants.

In spirometer assessment, 98 participants (60%) had normal pattern while 65 (40%) had abnormal pulmonary function- 23 (14%) and 23 (14%) participants had obstructive and restrictive pattern while 19 (12%) showed mixed pattern. Though not statistically significant, more number of patients in the control or non-metformin group showed abnormal PFT - obstructive or mixed pattern including severe restriction. The patients in the metformin arm exhibited significantly diminished plasma levels of pro-inflammatory markers like type 1, type 17 and pro inflammatory cytokines which were similar in both arms at baseline and the CXR lesion involvement, including the number of zones and cavity, were less compared to the control group.

CONCLUSION: This study shows that adding metformin to the standard ATT was associated with faster closure of cavity on chest x-ray and reduced circulating inflammatory markers in plasma which can pave the way for a lesser post-TB sequel that remains major challenge in the well-being of patient.

KEYWORDS: Host directed therapy, Tuberculosis, metformin, pulmonary function test

Immunological and Virological Discordance Among People Living with Hiv on Highly Active Antiretroviral Therapy

Murugesan S, Sathyamurthi P, Nithya R, Senthil Nathan R, Surekha V, Rajeshwari M, Anuja R, Rohini P
 ICMR- NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, INDIA.

BACKGROUND: Life-saving antiretroviral therapy (ART) has contributed to significant decrease in HIV-related morbidity and mortality. Majority of HIV-infected patients started on ART show a concomitant decrease in viremia and substantial improvement in immunological status as seen by increased CD4 count. However, a small subset of HIV infected individuals show persistently low CD4 cell counts despite persistent viral suppression, a phenomenon known as immuno-virological discordance. Earlier studies have documented discordant responses to be associated with poor prognosis and increased risk of mortality. Initiation of ART at higher CD4 counts is reported to decrease immunological failure and immuno-virological discordance. The objective of this study was to determine improvement in rates of immuno-virological discordance after the adoption of Treat All Policy in the country.

METHODS: We conducted a retrospective analysis of newly diagnosed HIV-infected individuals who were enrolled in a HIV cohort study in an ART Centre in Chennai, India, during 2020-2021. Immuno-virological discordance was defined as CD4+ T cell

gain <100 cells/ μ L and HIV-1 viral load <1000 copies/mL 12 months post ART initiation. The CD4 count was estimated using the BD FACSCount™ System and HIV-1 viral load was quantified using the Abbott m2000rt real time PCR System. Data was analyzed using Graph Pad Prism version 9.0.

RESULTS: Among the 82 HIV-1 infected individuals who were on ART for at least 12 months, 7 individuals (8.5%) exhibited immuno-virological discordance (poor immunological recovery despite good virological clearance) and three individuals (3.6%) exhibited virological failure, despite adherence of >95%. The mean CD4 count at the time of initiation of ART was 302 cells/ μ L.

CONCLUSION: We observed a two-fold decrease in the rate of immuno-virological discordance from that seen in the same population in 2017 (17.82%) prior to implementation of the Treat All guidelines. This clearly indicates the benefit of early initiation of ART and encourages early diagnosis and treatment initiation in those with HIV infection.

KEYWORDS: ART, CD4, Discordance, Viral load

Impact of Post Covid 19 Infection on Inflammatory Markers During Pulmonary Tuberculosis

Nancy Hilda J, Natarajan PL, Luke Elizabeth Hanna, Saravanan N, Ponnuraja C, Mahilmaran A, Ramesh PM, Lavanya J, Rajeshwari, Hemalatha P, Gunaparvathy

ICMR- NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS,
 INSTITUTE OF THORACIC MEDICINE, CHETPET,
 GOVERNMENT THIRUVATTEESWARAR HOSPITAL OF THORACIC MEDICINE, OTTERI,
 GOVERNMENT HOSPITAL OF THORACIC MEDICINE, TAMBARAM

BACKGROUND: The biochemical parameters like C- reactive protein (CRP), ferritin and Lactate dehydrogenase (LDH) were more pronounced as inflammatory markers during the COVID 19 era. We wanted to understand the differences, if any in these biochemical markers between pulmonary tuberculosis (PTB) patients with and without past COVID 19 infection.

METHODS: We recruited 19 newly diagnosed PTB participants (without history of COVID 19 infection/ vaccination), 15 newly diagnosed PTB participants with proven COVID 19 infection in the past (Anti-SARS-CoV-2 IgG positivity), and 19 healthy volunteers. The serum was separated and biochemical parameters like LDH (U/L), ferritin (ng/mL) and CRP (mg/L) were measured immediately using commercial reagents from Beckman Coulter Ltd. Significant differences in the level of these markers between the three groups were computed using graph pad prism software and $p < 0.05$ was considered statistically significant.

RESULTS: Statistically significant increase in the levels of CRP, LDH and ferritin were observed in both PTB and Anti-SARS-CoV-2

IgG+ve PTB groups, compared to healthy volunteers [PTB Vs Healthy: CRP- 96.25mg/L Vs 3mg/L ($p < 0.0001$), LDH- 388U/L Vs 165U/L ($p < 0.0001$) and ferritin 284.5ng/mL Vs 21.5ng/mL ($p < 0.0001$). SARS CoV IgG+ve PTB Vs Healthy: CRP- 74mg/L Vs 3mg/L ($p < 0.0001$), LDH- 42U/L Vs 165U/L ($p < 0.0001$) and ferritin 589ng/mL Vs 21.5ng/mL ($p < 0.0001$)]. LDH and CRP had no significant difference between the PTB and SARS CoV IgG+ve PTB groups. Nevertheless, ferritin levels were significantly higher ($p = 0.02$) in the SARS CoV IgG+ve PTB group compared to PTB group (589ng/mL Vs 284.5ng/mL) respectively.

CONCLUSION: Although it is already established that LDH, CRP and ferritin are elevated during pulmonary tuberculosis and COVID 19 infection, our study shows that ferritin level in blood during pulmonary tuberculosis is influenced by past COVID 19 infection. This might be of clinical importance because basal ferritin levels have been shown to be a bad prognostic indicator for TB as well as COVID 19.

KEYWORDS: COVID 19, Ferritin, Tuberculosis



Developing a Tool for Screening Refractive Error Among School Children in Tamil Nadu

Dr. Rita Hepsi Rani.M, Dr. D.Anandhi, Yuvaraj J , Dr. Shantaram K, Dr. Deepa. M, Dr. Delfiya.B, Dr. Padhma, Dr. Sudharsan, Lakshmi Kandhan, Prateeksha Dawn.
 ICMR- NATIONAL INSTITUTE OF EPIDEMIOLOGY, TIRUNELVELI MEDICAL COLLEGE AND HOSPITAL

BACKGROUND: Refractive error is identified as one of the important causes of correctable, visual impairment and it affects people of all age groups, socio economic status & ethnic groups. Due to lack of awareness, Student's ocular complaints go unnoticed. If refractive error is not identified and treated early, it will lead to amblyopia. Although there are school programs like RBSK and others that are actively engaged in screening and referring them for treatment, the amount of students they're able to detect might still be just the tip of the iceberg because of the amount of students that need to be screened through charts, so this study was designed to develop a questionnaire that has high sensitivity and reasonable amount of specificity to identify students with refractive error by teachers, so as to reduce the burden on the health system and increase the number of students diagnosed and treated.

METHODS: A population based cross sectional study sought to estimate the prevalence of refractive error among school going children in Kallur PHC area. The study comprised of 3432 in the age group of 5-19 years. A detailed questionnaire of assumed surrogate indicators pointing towards refractive error in the children was used and this data was analyzed using SPSS, those markers with

high significance of association with refractive errors were put together, and scored, ROC curve was done to find the suitable cut off later sensitivity and specificity of the questionnaire was calculated using that cut off.

RESULTS: In total of 3432 children 357 having refractive errors (10.22%). Out of 357 students with refractive 299(85%) had simple myopia, 24 (6.8%), single myopic astigmatism, 8(2.27%), simple hypermetropia, 4(1.1%), simple hypermetropic astigmatism, 12 (3.41%) compound myopic astigmatism. 80% of the students were newly identified to have refractive errors. Five variables like.spelling mistake while coping from board, habit of copying notes from neighbouring child, squeezing eyes for seeing things, using spectacles previously and deviation of eyes were used to develop the questionnaire as they had 65% probability of deducting refractive error, a cut of 5.5/ 14 has been identified to have 90% sensitivity and 50% specificity of identification of refractive errors.

CONCLUSION: The screening tool will be able to reduce the burden on the health system and by help screening for the largest cause of preventable blindness.

KEYWORDS: Refractive error, Screening tool.

Prevalence of Ocular Morbidity Among School Going Children In Kallur Phc Area and Identifying The Surrogate Markers

Dr. Rita Hepsi Rani. M, Dr. D.Anandhi, Yuvaraj J, Dr. Shantaram K, Dr. Deepa. M, Dr. Delfiya.B, Dr. Padhma, Dr. Sudharshan, Lakshmikanthan, Pradheeksha.

ICMR- NATIONAL INSTITUTE OF EPIDEMIOLOGY
TIRUNELVELI MEDICAL COLLEGE AND HOSPITAL

BACKGROUND: Ocular morbidity in children is different from that of adults in that children are unaware of their visual morbidity and its potential to develop amblyopia. Screening at the level of schools is necessary to detect and treat ocular morbidity so that future blindness can be prevented. This study was conducted with the objective of estimating the prevalence of ocular morbidity and identifying their surrogate markers.

METHODS: A cross sectional study of ocular morbidity among children 5-19 years of age in Kallur PHC area. Demographic information, visual acuity and detailed ophthalmic examination were done. A Data was analyzed using Microsoft excel sheets and statistical analysis was done using SPSS.

RESULTS: A total of 3432 students were screened in the age groups of 5-19 years. The prevalence of ocular morbidity was 14.6%. The most common ocular morbidity was Refractive error 77% followed by congenital anomalies, Convergence insufficiency and ptosis. Among refractive error, Myopia was the commonest

(85%) followed by simple myopic astigmatism (6.8%). Surrogate markers of ocular morbidity were identified. The surrogate markers significantly pointed towards ocular morbidity in school going children are preferred to sit in 1st row, made mistakes white copying from board, copied from neighbouring students, avoid playing outdoor games, habit of squeezing eyes to see clearly, used glasses previously, deviation of eyes, watering of eyes, facing difficulty in seeing in ambient light , more susceptible to injury .

CONCLUSION: The results of this study strongly suggest that ocular screening for school children should be done at regular intervals for early detection and treatment for ocular morbidities. This study is unique in having identified surrogate markers of ocular morbidity in school going children. The list of these surrogate markers can be used by the school authorities and teachers to identify and refer children with refractive errors early.

KEY WORDS: Ocular morbidity, prevalence, surrogate markers, refractive error,

Prevalence of Amblyopia in School Going Children of Kallur Phc Area

Dr. Rita Hepsy Rani.M, Dr. D.Anandhi, Yuvaraj J , Dr. Shantaram K, Dr. Deepa. M, Dr. Delfiya. B, Dr. Padhma, Dr. Sudharshan, Lakshmiathan, Pradheeksha.

ICMR- NATIONAL INSTITUTE OF EPIDEMIOLOGY,
TIRUNELVELI MEDICAL COLLEGE AND HOSPITAL

BACKGROUND: Amblyopia (lazy eye) is the second most common cause of functional low vision in children in developing countries. Amblyopia is an important health problem because it causes profound and lifelong visual impairment. The latest meta-analysis article established 99.2 million people with amblyopia in 2019 worldwide, increasing to 175.2 million by 2030. Understanding the prevalence rate of amblyopia is important for adequate health care planning. Standard screening is quite necessary for early diagnosis and treatment. This article aims to determine the prevalence of amblyopia and associated factors in school going children in Kallur PHC area.

METHODS: A cross sectional study was conducted in 3432 school going children in Kallur PHC area. Demographic data, visual acuity, and detailed ophthalmic examination including anterior segment and posterior segment examination were done.

RESULTS: In our study amblyopia was more common in children with uniuocular refractive error particularly simple myopia (0.7%) followed by simple myopic astigmatism. Non refractive cause of amblyopia is most common in exotropia.

CONCLUSION: The uncorrected refractive error for long time leads to amblyopia. The main complication of amblyopia is an irreversible, lifelong decrease in vision. By this study, the prevalence of amblyopia was identified and occlusion therapy was recommended. Parents should be educated on the importance of early vision assessment for their children and the need for follow up to prevent amblyopia. Screening and providing early treatment for the children with refractive error significantly reduces the load of amblyopia.

KEY WORDS: Amblyopia, refractive error



Climate Change and Malaria - Impact of Climate Change on Malaria in Chennai

Dr. N. Revathi

SRI RAMACHANDRA INSTITUTE OF HIGHER EDUCATION AND RESEARCH, CHENNAI

BACKGROUND: Malaria is one of the most significant cause of fatalities in many countries, which is influenced by climate change. Climate change causes change in precipitation patterns which affects incidence and prevalence of malaria. Hence it is important to identify the association between climate change and malaria.

METHODS: Secondary data on temperature and rainfall was obtained from open-source government database. Incidence and prevalence of malaria was also obtained from open-source government database. Annual parasite incidence was also calculated (>2 indicates high risk) based on confirmed cases in a year.

RESULTS: Annual parasite incidence is calculated to be 2.5. This indicates high incidence of malaria in Chennai. Data analysis shows that, malaria incidence is high during monsoon season. This indicates significant association between climate change and malaria.

CONCLUSION: Climate change has significant impact on health especially vector borne diseases like malaria as stagnant water can be a breeding ground for mosquitoes. With change in precipitation patterns, rainfall can occur unexpectedly and hence incidence and prevalence of malaria is increasing.

KEYWORDS: Climate change, Malaria, Incidence, Prevalence, Annual Parasite Incidence, Precipitation

Clinico-Social Profile of Patients with Scrub Typhus and Factors Determining its Outcome, An Analytical Cross-Sectional Study in Villupuram District, 2022

R. Saranya, S. Porkodi

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Scrub typhus is the commonest rickettsial infection worldwide, causing an estimated 1,000,000 cases per year with high case fatality rate. Despite effective antimicrobial therapy, non-specific initial symptoms, delayed diagnosis, lack of point-of-care diagnostic tests, false negativity causing negligent medical care adds to mortality. The primary reason is that in endemic regions: dengue, malaria, leptospirosis, and other acute undifferentiated febrile illnesses are common, presenting with similar clinical manifestations. This secondary analysis aims to describe the disease in terms of distribution, symptomatology, factors determining outcome in Villupuram district, as an eye opener to public health personnel to investigate this under-recognized, re-emerging vector-borne disease.

METHODS: Patients diagnosed with Scrub typhus in year 2022 (up to 30th September) was identified from VBDC line list and relevant clinical data was obtained from hospital records. Data was analyzed for time, place, person distribution, clinical profile, and outcome. Descriptive statistics was done using

SPSS version 16 and chi-square test was used for measuring significance.

RESULTS: A total of 278 patients were diagnosed with scrub typhus in the study period. Mean age was 21.7 years, with the youngest and oldest patient being 28 days & 85 years respectively. 51.8 % of them were ≤ 14 years. Men constituted 52.2% and the major comorbidity being Diabetes mellitus (8%). Most common symptom was fever (78%), eschar was seen only in 22%. Average delay in seeking care was 1.9 days (maximum 6 days). Average duration of illness was 3.8 days (maximum 9 days). Sex did not affect outcome, however age < 14 years, Delayed diagnosis, existing respiratory illness, Non-specific symptoms including absence of eschar did.

CONCLUSION: High clinical suspicion of illness is mandatory in improving the outcome, as majority present with atypical symptoms in endemic regions. Public health education about recognition of signs has become a keystone in reducing the mortality.

KEYWORDS: Scrub typhus, Determinants, Clinical profile, Villupuram.



**ENVIRONMENT
HEALTH INCLUDING CLIMATE
CHANGE**

Assessment of Multi Metals Exposure Through Human Biomonitoring Technique, Chennai, Tamilnadu (2021-22)

Jayachelvi B, Naveen P, Kalpana B, Krishnamurthy K, Palanivel K

SRI RAMACHANDRA INSTITUTE OF HIGHER EDUCATION & RESEARCH (DU), ENVIRONMENTAL HEALTH DIVISIONS (EHD), NEERI, ANNA UNIVERSITY

BACKGROUND: Assessment of human exposure to multi-metals is complicated owing to multiple exposure pathways (ingestion, inhalation and dermal) and environmental media (air, water and food). Human biomonitoring provides an integrated exposure measure of metal body burden that could be closely related to adverse health outcomes. Lead (Pb), arsenic (Ar), cadmium (Cd) and chromium (Cr), Vanadium (V) are considered to be systemic toxicants and despite the ubiquitous sources in India, their distribution in the Indian population is largely unknown.

METHODS: The primary aim of this study was to develop a robust analytical technique to adopt human biomonitoring of multi-metals and to determine the distribution of multi-metals levels in the general population. Venous blood samples were collected from adult population (n=100) aged between 18 and 60 years residing in Chennai city. An analytical technique for the determination of trace levels of As, Pb, Cd, Cr and V was developed using microwave digestion and analysis by ICP-MS (Agilent Technologies 7800, G8421A). Seronorm whole blood level 2 was used to assess the accuracy and precision of the analytical method. Analytical method validation parameters included the limit of

detection (LOD), limit of quantification (LOQ), linearity, accuracy and recovery.

RESULTS: Limit of detection (LOD) of each metal were as follows: arsenic 0.269 $\mu\text{g/l}$, cadmium 0.234 $\mu\text{g/l}$, chromium 0.365 $\mu\text{g/l}$, lead 0.294 $\mu\text{g/l}$ and vanadium 0.299 $\mu\text{g/l}$ and limit of quantification (LOQ) were a1.0 $\mu\text{g/l}$ for arsenic, cadmium, lead and vanadium, and chromium was 1.1 $\mu\text{g/l}$. Accuracy and precision was revealed from accepted reference values of Seronorm CRM whole blood trace metals L2 and range between 95.6 and 118.1%. (Standard deviation = Ar 0.03, Cd 0.01, Cr 0.02, Pb 0.04, V 0.02 and Observed RSDr % =Ar 4.03, Cd 1.63, Cr 3.12, Pb 4.83 and V 2.57). Pilot study, blood samples Geometric mean (GM) values for As, Cd, Cr, Pb and V were 3.00 $\mu\text{g/l}$, 0.37 $\mu\text{g/l}$, 8.73 $\mu\text{g/l}$, 46.58 $\mu\text{g/l}$, and 2.32 $\mu\text{g/l}$ respectively.

CONCLUSION: This study will be of significant relevance in generating baseline data as well as in implementing recommendations of the multimetal exposure at a national level to adopt a global harmonized protocol for multimetals human biomonitoring in general population.

KEYWORDS: Body burden, Human biomonitoring, ICP-MS, Multimetals exposure

Assessing The Efficacy of Sound Level Meter Mobile Apps with Reference Sound Level Meter to Screen Environmental Noise Pollution

Shunmathi Babu, Gladius Jennifer H

SCHOOL OF PUBLIC HEALTH SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

BACKGROUND: Environmental noise pollution is an emerging public health concern. Noise Induced Hearing Loss is the second most recurrent kind of acquired hearing loss after presbycusis, research revealing that people exposed to noise levels more than 85 dB suffered from NIHL. In Chennai highway traffic noise accounts for 80% of all noise. On the other hand, the advancement of smartphones has coincided with growth of smartphone applications or “apps.” In parallel with prevalence of Sound level meter applications for smartphones provide definite prospect of usage as a portable sound level meter in practically everyone’s pocket. The objective of the study is “to assess the efficacy of sound level metre mobile applications to quantify environmental noise pollution as a screening tool”.

METHODOLOGY: Initially the clinical testing was completed to shortlist the apps by critical test such as measuring pure tones from speakers in different intensities (20dB, 50dB, 90dB, 100dB, 120dB), octave frequencies (250Hz – 8kHz), 2 different distances along with reference sound level meter II. Further the apps

were assessed in 6 locations of Chennai in 2 different time zones (Peak time) in the morning and evening. Minimum & maximum intensities was measured to test precision of applications in environmental noise.

RESULTS: Repeated measures ANOVA revealed significant results among SLM, Android & IOS readings. Kruskal Wallis test revealed significant results for evening readings (5-6pm, H-2, P-001, 6-7pm, H-2, P-002) across SLM, Android and IOS. This shows 3 measurements significantly differ from each other in environmental noise screening. Mann Whitney test revealed insignificant results between the readings of IOS & Android, which shows that android & IOS measures noise level with some similarity.

CONCLUSION: Android & IOS platforms measure environmental noise with similarity to SLM, therefore these apps can be used as a screening tool to measure and monitor environmental noise.

KEY WORD: Environmental noise, noise pollution, SLM apps, NIHL.

Association of Mycobacterium Tuberculosis with Climatic Factors in The Southern Region of India

Rajendran Krishnan, Kannan Thiruvengadam, Lavanya Jayabal, Sriram Selvaraju, Basilea Watson, Muniyandi Malaisamy, Karikalan Nagarajan, Padmapriyadarsini Chandrasekaran

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, CHENNAI, INDIA
 DTO, NTEP, GREATER CHENNAI CORPORATION.

INTRODUCTION

Mycobacterium tuberculosis is an airborne infection that may have a crucial association with climatic factors such as dew point temperature (DPT), relative humidity (RH), and atmospheric temperature (Temp). It is transmitted commonly through cough droplet nuclei of minute size expelled by persons with Pulmonary TB disease. These tiny particles can stay in the air for several hours, and persons may become infected when inhaling droplet nuclei containing tubercle bacilli.

METHOD: This is the first study to investigate the relationship between climatic factors with TB occurrence in an Indian setting. Daily tuberculosis notification data from 2008 to 2015 were generated from the National Treatment Elimination Program, and analogous daily climatic data were obtained from the Regional Meteorological Centre in Chennai city, Tamil Nadu, India. The decomposition method was adopted to split the series into deterministic and non-deterministic components to assess the relationship independently.

RESULT: A total of 5777 TB cases were notified during this period. The highest TB patient occurrence was moderately high in

summer, when the average DPT, RH, and Temp were 24.8°C -25.3°C, 64%-73%, and 30°C-33°C, respectively. During the monsoon season, the evening high DPT (>0°C to -6°C) and morning high DPT (0°C to 2°C) were predominant, with average DPT, RH, and Temp values of 24.3°C-25°C, 70%-78%, and 30°C-32°C, respectively. During the post-monsoon season, the evening high DPT (>0°C to -2°C) and morning high DPT (0°C to 6°C) were predominant, with average DPT, RH, and Temp of 21°C -24°C, 71%- 88%, and 26°C-28°C, respectively. Yearly, three seasonal peaks were found to be associated with peaks of TB occurrence. The first, second, and third peaks were from March to April, May to June, and November to December respectively.

CONCLUSION: TB disease progression from latent stage infection to active disease was favored by higher dew point temperature and moderate temperature in the summer and monsoon seasons and higher relative humidity in the winter and post-monsoon seasons. The water's tiny dew droplets may support the survival of the TB bacterium to recuperate in the environment.



**FAMILY WELFARE AND
CONTRACEPTION**

Role of Family Members In Antenatal Decision-Making Process - A Qualitative Study Among Antenatal Women and Family Members Availing Obstetric Care Services at a Secondary Care Hospital in Solur, Ramnagara District

A Jeganish, Bency L, Savinitha R, Shanthi Babiola, Alinda Britto,

ST. JOHN'S MEDICAL COLLEGE, RGUHS, BENGALURU

BACKGROUND: Antenatal care (ANC) has been recognized as one effective way to improve health outcomes and it is influenced largely by the decisions taken during ANC. These include decisions regarding where to seek care, financial support, availability of transportation facilities, nutrition and exercise. Delay in decision making is the first delay leading to maternal death. Objective of this study was to understand the role of the family members in the decision-making process regarding practices during antenatal and postnatal period in a rural maternity hospital in Ramanagara district, Karnataka.

METHODS: Qualitative research methodology was followed to explore perceptions regarding antenatal decision-making among antenatal women and family members in 2022. Focus group discussions (n=5) and In-depth, Key-informant interviews (n=5) were conducted with antenatal and postnatal women, their caregivers and health care providers. Inductive coding approach and thematic framework analysis was done.

RESULTS: Six major themes emerged regarding perceptions of antenatal decision

making among the women: Decisions related to ANC itself, Delivery, Postnatal care (PNC), Nutrition, Work and Physical Activity, Pregnant women's role and Gender preferences. Most pregnant women felt their husband decides the place of ANC, Delivery and PNC, preferably private hospitals. Women were of the opinion that food items to be taken and avoided were decided by the elders in the family. Health care providers and few women opined that the pregnant women themselves had the ability to decide regarding their health in recent times. Most women were of the opinion that the decision based on the advice of the treating medical officer is the ultimate one.

CONCLUSION: The study reveals that decision makers in ANC are mostly the elders in the family barring a very few instances where the women themselves take the decision. The healthcare providers also play a very important role in the decisions taken during ANC, Delivery and PNC.

KEYWORDS: Antenatal Decision Making, Rural India, Qualitative Study

Unmet Need for Family Planning Among The Women In Karnataka: Comparison of NFHS-4 & NFHS-5

Dr. Divya Bharathi G, Dr. Mohammed Shoyaib, Dr. Ranganath T S

BANGALORE MEDICAL COLLEGE & REASERCH INSTITUTE, BANGALORE, KARNATAKA

BACKGROUND: Unmet need for family planning provides a measurement of the ability of women in achieving their desired family size and birth spacing. It provides an indication of the success of reproductive health programs in addressing demand for services. This study investigates the extent of achievement by National Family Welfare Program in Karnataka by comparing the demographic and health survey.

METHODS: Secondary Analysis of NFHS-4 and NFHS-5 datasets collected using a cross-sectional study design with structured questionnaire. In this study, married women in reproductive age group with complete cases variables of interest were included in the study. Descriptive statistics and appropriate inferential statistics were applied using SPSS v27.0.

RESULTS: NFHS-4 infers that 10.4 percent of currently married women in Karnataka had unmet need for family planning and it decreased to 6.5 percent in NHFS-5. In NFHS-4, the

unmet need for family planning was statistically significant among women with knowledge on menstrual cycles ($p=0.002$) whereas it was statistically significant among women with children when compared to women with no children in NFHS-5 ($p=0.002$). The unmet need was higher among women belonging to rich socioeconomic status, with children, with knowledge on cycles and with lesser than high school education in both surveys. The main reason for unmet need in the survey was found to be due to opposed use from husband followed by infrequent sex.

CONCLUSION: The overall prevalence of unmet need in Karnataka was observed to have improved since the last survey and is also low compared to the total unmet need of India. Targeted measures to improve the factors responsible needs to be implemented to further success the National Family Welfare Program.

KEYWORDS: unmet, contraception, NFHS

Immediate Postnatal Contraception: What Women Know and Think

**Dr. Z.H. Fathima Shifana, Dr. Tamilarasi, Dr. G. Praveen, Dr. KV. Prashanth,
Dr. NC. Ragavan, Dr. Punyo butung, Dr. Rishabh Vasita, Dr. P. Seenivasan**

ST.JOHN'S MEDICAL COLLEGE, RGUHS, BENGALURU

BACKGROUND: Being the second-most populous country with billion population, we need timely intervention to stop explosion. Greater investments in family planning can thus help mitigate the impact, by helping women achieve the desired family size and avoid unintended and mistimed pregnancy. World Health Organization recommended initiation of postpartum contraceptive utilization within 6 weeks after delivery. In addition, their use has been shown to avert more than two fifth of maternal mortality.

METHODS: This was a cross sectional study conducted among 150 postnatal mothers in Government RSRM Lying in Hospital, Chennai from June-September 2022. Data were collected using questionnaire by Epicollect application which consisted of 33 questions to assess demographics, preferred method of contraception and reasons for preferring them. The data were analyzed using SPSS version 16.

RESULTS: Overall, 53.3% have good knowledge about contraceptives. The mean age among them was 25.49 years. 40% have completed high school and 52.6% were primi parous, 40% were having two kids and the rest three children. 63.3 % have previously used anyone method and 57.3% have decided to use permanent method in the future. The factors which were having significant association with contraceptive knowledge are education and the primi parous were more aware of this.

CONCLUSION: Most people considered condom and copper T as the best option. Since 46.7 % have average to poor knowledge in our study, information, education and communication activities of family planning and spacing should be repeatedly reinforced by health care workers starting from early antenatal period itself.

KEYWORDS: Postnatal mothers, Contraception.



A Study on Caregiver Burden and Their Coping Styles Among Primary Caregivers of Cancer Patients on Chemo Radiotherapy: A Cross Sectional Analytical Study From A Tertiary Care Hospital In Visakhapatnam

Nivetha A, Padmasri Y

ANDHRA MEDICAL COLLEGE, VISAKHAPATNAM, AP

BACKGROUND: India accounts for 14% of cancer cases in the world. A study by Kondeti showed that family caregivers experienced 52% moderate and 44% high burden. Caregivers are profoundly and personally impacted by the care they offer, which results in a state of psychosocial disorganization which can persist for an extended period and higher burden levels may be linked to increased caregiver morbidity and mortality.

OBJECTIVES:

1. To estimate the burden of primary caregivers of cancer patients.
2. To assess their coping mechanism pattern.

METHODS: This study was a hospital-based cross-sectional analytical study done among 100 primary caregivers of cancer patients on chemoradiotherapy who attended the radiotherapy department of a tertiary care hospital in Visakhapatnam for a period of 3 months (based on study by Mishra where the prevalence was 70%). A purposive sampling technique was used to select patients and their

primary caregivers. Data was collected by interview method using a standard validated questionnaire, namely the Zarit caregiver burden assessment and the Brief COPE scale questionnaire.

RESULTS(PRELIMINARY): Mean age of the cancer patients 49.4 ± 12 and their primary caregiver was 36.9 ± 14 . Mean Zarit caregiver burden score was 15 ± 7 who were in mild to moderate burden. There was no statistically significant difference of burden score across gender. Mean coping score was 56 ± 8 . Male caregiver used planning method ($p= 0.005$) while female caregivers used informal support method ($p =0.042$) as their coping styles.

CONCLUSION: Despite the responsibilities they bear, many caregivers require resources and help in providing a continuum of care to patients. By evaluating their burden and offering coping mechanisms, we may be able to help them deal constructively and meet their physical, emotional, and social demands.

KEYWORDS: Cancer, Caregiver burden, chemoradiotherapy, coping mechanism.

A Study on The Assessment of Level of Mobility Among Elderly Patients Visiting Rural Health and Training Centre of a Medical College in Chennai

Dr. Mohammed Kashif A.R, Dr A.M. Stanly

SRMC & RI, SRIHER, CHENNAI

BACKGROUND: The world's population is ageing. By 2050, 16% of world's population will be made up of people over the age of 65 years. This demographic transition will have a great impact on health systems. As a result, there is need to redirect global action towards healthy ageing. Mobility, one of the key components of intrinsic capacity of an individual, is an important factor for preventing dependence on a caretaker. The present study aims to highlight the prevalence and correlates of locomotor capability among the rural elderly.

METHODS: The cross-sectional study was conducted among outpatients attending rural health and training centre of Sri Ramachandra Medical College, Chennai. Convenience sampling method was used to recruit 179 subjects above 60 years of age. After obtaining informed consent, mobility problems were assessed using the Elderly Mobility Scale

(EMS) and classified as dependent, borderline, independent based on scores obtained after performing seven functional activities.

RESULTS: The results are preliminary. 71 subjects were studied ranging between 61 to 85 years of age, out of which 69% were males and 31% were females. 91.5% were found to be mobile. 8.4% of the studied subjects were found to be borderline in terms of safe mobility and independence in activities of daily living out of which two thirds were male subjects.

CONCLUSION: With the help of results, strategies such as multi-modal exercises, provision of assistive devices can be applied to those with limited mobility to improve functional independence.

KEYWORDS: Ageing, mobility, independent

Body Image Dissatisfaction Among Undergraduate Medical Students of A Government Medical College In Bengaluru - A Cross Sectional Study

Dr. Iswarya P, Dr. Ranganath T S, Dr. Riya George

BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE, BENGALURU, KARNATAKA

BACKGROUND: Body image refers to “a person’s perceptions, thoughts and feelings about his or her body”. With westernization, there is increased impact on the body image most commonly among college students. This study aimed to examine body image perceptions and body image dissatisfaction and their relationship with body mass index (BMI) among medical students in a medical College in Bengaluru.

METHODS: This cross-sectional study was conducted among undergraduate students of the government medical College of Bengaluru between July to August 2022. The data (including self- reported weight and height) were collected through a questionnaire-based survey. Body image perception and satisfaction were assessed using the Stunkard Figure Rating Scale.

RESULTS: A total of 890 medical students who had given consent had participated in the survey. (response rate: 64.5%) with a

mean age of 22.8 ± 2.2 years and a mean BMI of 21.7 ± 3.7 kg/m². Most students were within normal ranges of BMI (53%), 25% were underweight and 22% were overweight/obese. Approximately, 54% of students perceived their body image correctly; students at both BMI extremes were more accurate about their body image perceptions. Body image dissatisfaction was high (87%) among the respondents with 73.5% of those dissatisfied desiring to be thinner.

CONCLUSION: A high degree of body image dissatisfaction and incorrect body image perceptions exists even among medical students. There is an increased desire to be thinner and the majority of this study’s participants feel they are unattractive. So, there is high need for inculcating the true sense of health among the younger generation

KEYWORDS: Body Image; Body Image Dissatisfaction; Body Mass Index; Medical Students;

Prevalence and Risk Factors of Depression Among College Students of Andaman and Nicobar Islands; A Cross Sectional Study

Sudakshina, Lena Charlette

ANDAMAN AND NICOBAR ISLANDS INSTITUTE OF MEDICAL SCIENCES,
ALL INDIA INSTITUTE OF MEDICAL SCIENCES, MADURAI

BACKGROUND & OBJECTIVES: College students have a greater risk of depression. Students in Andaman and Nicobar Islands with scarce recreational facilities may be more prone to depression. Hence the study was undertaken to estimate the prevalence of depression among college students in Andaman & Nicobar Islands, to determine the association of depression with various factors and spirituality and religiousness.

MATERIALS AND METHODS: The cross-sectional study was conducted among students of a medical and technical institute. All students of age >18 years were eligible for participation. Online mode of data collection was used to collect information. Depression was assessed using Patient Health Questionnaire (PHQ)-9. The questions were adopted from various standard questionnaires. Data was collected between August to November 2021.

RESULTS: Information was obtained from 309 students. The prevalence of any depression

among study participants was 95.79% and moderately severe to severe depression was 20.71%. In the bi-variable analysis, reason for joining the course, satisfaction, worry score, fruit consumption and hours spent on smartphone per day were found to be significantly associated with moderately severe to severe depression.

INTERPRETATION & CONCLUSIONS:

The prevalence of any depression in this study was comparable to results of studies conducted in other parts of the country. Interest in joining the course, satisfaction, worry score, fruit consumption and hours spent on smartphone per day were found to be determinants of depression. The study did not find statistically significant association between Depression and Spirituality or Religiousness.

KEYWORDS: College students, Depression, Fruits, Smartphone

Prevalence of Depression Among High School Students in an Urban Area

Dr Gowtham karthic R, Dr Soumya Agadi, Dr Girija J Mahanthshetti

CHETTINAD HOSPITAL & RESEARCH INSTITUTE, CHETTINAD ACADEMY OF RESEARCH AND EDUCATION,
KAHER'S J. N. MEDICAL COLLEGE, BELAGAVI, KARNATAKA

BACKGROUND: Depression is a common illness which is characterized by a loss of interest, sadness, feeling guilty, disrupted sleep and appetite, poor concentration and feeling tired. Depression is observed in all age children, but prevalence usually increases with age, teenagers have a significantly higher prevalence of depression when compared with younger children.

OBJECTIVE

1. To assess the prevalence of depression among high school students.
2. To assess the factors associated with depression

MATERIALS AND METHODS: A cross-sectional study was conducted on all high schools present in UHC Rukmini nagar field practice area of KLE's Jawaharlal Nehru Medical College, Belagavi. Study was conducted from 1st January 2020 to 31st December 2020. A sample size of 600 was calculated and obtained by systematic random sampling method. Beck's Depression Inventory II was used to find the prevalence of depression.

RESULTS: The mean age was 14.7 ± 0.96 years. Majority of the students were studying X standard 248(41.33%), belong to nuclear family 443(73.83%), 437(72.83%) were Hindu by religion. Majority of the participants 317(52.83%) fathers and 222 (37%) mothers were graduate, most of the participants belonged to 288 (48%) class II SES (Modified BG prasad). overall prevalence of depression among High school students in the present study was 18.00% (n= 108).

CONCLUSION AND RECOMENDATION:

The present cross-sectional study reported that prevalence of depression among high school students was 18%. Health education to parents, teachers and community is essential to eliminate the stigma attached to these types of disorders. Counsellors can play a vital role in reducing the prevalence of depression and regular counselling by a professional should be made available at all schools for promotion of overall mental health.

KEYWORDS: (Depression, Highschool students, Beck's depression inventory, Mental Health.)

To Assess The Burden of Primary Caregiver of Chronically Ill Patients

**Hrileka K B, Harish C, Hema V S, Harshith C,
Dr. SenthilArasi, Dr. Prabhu, Dr P. Seenivasan**

GOVERNMENT STANLEY MEDICAL COLLEGE AND HOSPITAL, CHENNAI,

INTRODUCTION: With the chronic illness on the rise, the subject on burden of caregivers has been surprisingly neglected. Hence the study using Caregiver burden scale and Brief resilience scale to assess the burden and the coping resilience of the caregiver respectively is of great significance.

METHODOLOGY: A tertiary hospital based cross sectional study on primary caregivers of chronically ill patients. Participants were selected from attenders of inpatients [department of medicine, oncology & nephrology] consecutively till the required sample of 255 was attained from July 2022 to September 2022. All information was collected from the study participants by face-to-face interview. Data was analyzed using SPSS software version 16. p value <0.05 will be considered statistically significant.

RESULTS: In the study, distribution of participants was 75.3% Female and 24.7%

Male with the mean age group of 42.60 ± 13.978 . By caregiver burden scale, 5.5% had no or minimal burden, 47.1% had mild to moderate burden, 42% had moderate to severe burden, 5.5% had severe burden. By brief resilience scale, 50.2% are high resilient copers, 29.4% are medium resilient copers, 20.4% are low resilient copers. Negative and positive coping practices were observed in 11.5% and 88.5% of participants with coping practices respectively.

CONCLUSION: Study shows that majority of the caregivers were experiencing mild to moderate burden. Thus, monitoring and preventive measures by health care workers should be strengthened to focus the healthcare towards caregivers. Majority of the participants show high resilience but awareness should be given to differentiate between negative and positive coping practices.

KEYWORDS: Caregivers, Preventive measures, Resilience

Assessment of Nutritional Status of Elderly Population of Rural Areas: Community Based Cross Sectional Study

Dr. Soumya Agadi, Dr. Gowthamkarthic R

CHETTINAD HOSPITAL & RESEARCH INSTITUTE, CHETTINAD ACADEMY OF RESEARCH AND EDUCATION, KAHER'S J. N. MEDICAL COLLEGE, BELAGAVI, KARNATAKA

BACKGROUND: Ageing is a physiological process that starts from birth, continues throughout the life, and ends with death. Nutrition has a significant role in modulating ageing process. The world health organization (WHO) estimates that the population of older or elderly (60+ yrs.) worldwide would cross 1.2 billion by 2025.

Majority of the world's elderly population (61%) live in developing countries, a proportion that will increase by 70% by 2025.

The current elderly population of India is 8.6% as per 2011 census and majority of them live in rural India, which is projected to rise to 19% by 2050.

Hence it means that geriatric age group is the fastest growing segment of the population of most of the countries. Older people are vulnerable to malnutrition for various reasons including physiological and functional changes that occur with age, lack of financial support and inadequate access to food.

OBJECTIVE: To assess the nutritional status of elderly population residing in rural areas of Belagavi

MATERIALS & METHODS: A cross sectional study design was conducted on elderly population of rural areas of Belagavi. Totally 600 study participants were enrolled. Systemic Random sampling technique was used. MNA tool was used for the data collection. SPSS was used for the data analysis; chi square test was used for the association and p value <0.5 was considered statistically significant. **RESULTS:** Out of the total participants 53% were males and 47% were Females. 33.3% were farmers by occupation, 17% were malnourished and 42% were at risk of malnutrition.

CONCLUSION: The overall prevalence of malnutrition was found to be 17%, but the alarming fact is that the proportion of elderly at risk of malnutrition was relatively high (42%). Efforts should be initiated to help the elderly to adopt healthy lifestyle practices to maintain or improve their functional status.

A Mixed Method Study To Assess The Fear of Fall and Associated Risk Factors Among Elderly Population of Hoskote, Bengaluru 2022

Dr. Riya George, Dr. Kishore S.G. Dr. Ranganath T.S.
GOVERNMENT STANLEY MEDICAL COLLEGE AND HOSPITAL, CHENNAI,

BACKGROUND: Falls contribute to one of the most common health issues among elderly population. Elderly population with or without previous history of fall tend to develop fear of fall which leads to phobic reaction to walk or stand. Fear of falling is often associated with negative consequences that affect the quality of life among the population and can decrease the confidence in doing daily activities.

OBJECTIVES: To assess the fear of fall and associated risk factors among elderly population of Hoskote, Bengaluru.

METHODS: A mixed method study was conducted among a total of 80 elderly population (age greater than or equal to 65-year Hoskote, Bengaluru from July 2022 to august 2022). A simple random sampling method was done. Consented patients were included, those with history Cerebrovascular accidents and other comprehension difficulties were excluded. After obtaining permission from Institutional Ethical Committee Falls Efficacy scale- International and focus group discussions (40 participants participated in 4 focus groups)

were used to assess fear of fall. Data was entered in MS Excel and analyzed using SPSS software ver 20.0 and ATLAS.ti was used to analyze qualitative component.

RESULT: Prevalence of fear of fall among the study participants was found to be 30% and was more prevalent among female gender and was found to increase with increase in age and with previous history of fall. Major themes which were identified during Focus group discussions include fear of physical injury, fear of dependence, lack of care, being institutionalized.

CONCLUSION: Fear of falling is highly prevalent in the community and can lead to psychological problems. Care takers and family members of elderly population should help them to alter the modifiable risk factors to decrease the fear of falling. Exercise programs and other intervention strategies can also be adopted for high-risk individuals.

KEY WORDS: Elderly, Falls Efficacy Scale-International, Fear of Fall

To Assess The Parenting Styles Among Parents of Children of Age 12-18 Years

Jacintha Gracelin J , Harsha M , Jayashree K , Jithendra R, Dr. D Prabu , Dr. D Senthilarasi, Dr. P Seenivasan

GOVERNMENT STANLEY MEDICAL COLLEGE AND HOSPITAL

BACKGROUND: BURDEN STATEMENT:

Behavioural problems including externalizing problems (e.g., hyperactivity, rule-breaking behaviours, and aggression) and internalizing problems (e.g., anxiety, withdrawal, and depression) are among the most common mental health issues in early childhood which are significant predictors of negative mental health outcomes in later life.

SCIENTIFIC RATIONALE: Parenting emphasizes the exemplary behaviour of the parent, which largely impacts children's behaviour, social skills, emotional intelligence, creativity, physical and psychological development. Hence, this study was conducted with the objectives to find the most common parenting style among parents of children of age 12-18 years and to determine the association between parenting style and child behaviour.

METHODS: A Community based cross sectional study was conducted among 150 parents of children (12-18 years) and their eldest child of appropriate age, through Consecutive sampling in Sanjeevarayanpet, Chennai. Study tools were predesigned questionnaires for assessing parenting styles and child behaviour from Robinson .C Et al(1995) and Big Five Personality questionnaire from Rammstedt Et al (2007) respectively. Data was collected through

Epicollect software, entered in SPSS version 16 and analyzed.

RESULTS: Sample included a higher proportion female (74%) than male (26%). Mean age of study participants was 40.98 (± 8.09) years. Among study participants 43.3% belongs to 31-40 years age group and 36% belongs to upper lower class. Majority of participants had Authoritative type of Parenting Style (82.67%), followed by Authoritarian (10.67%) and the rest being Permissive (6.67%). Authoritative parents grow up children who are moderate extroverts (52.4%), strongly agreeable (47.6%) and strong conscience (53.2%); Whereas permissive parents grow children most with moderately conscience(50%) and Authoritarian parents grow up children who are mostly moderately neurotic (68.8%).

CONCLUSION: Encouraging Authoritative Parenting Styles among Authoritarian and Permissive parents, would significantly reduce the weak conscience and strongly neurotic child behaviours which may combat and overcome the negative mental health outcomes in children.

KEYWORDS: Parenting styles, Child behaviour , Negative Mental health

Prevalence of Gaming Disorder Among Middle School Students and its Correlation with Parental Perception of Problematic Internet Usage in Chennai

Sargema M, Dr. S Sudharshini and Dr. A Arvinth Ram
MADRAS MEDICAL COLLEGE, CHENNAI

BACKGROUND: Recently internet and internet related activities have seen a tremendous user activity. But it comes with its own pros and cons. Internet gaming disorder (IGD) is one such ill-effect which was recognized by WHO in 2018 in the ICD-11 as a health concern. IGD + problematic internet usage (PIU) can have a detrimental effect on an adolescent's health and public health impact a well by paving way for addictive and metabolic conditions (currently a significant public health problem) at a later age, if necessary, interventions are not done when ill-effects are observed.

METHODS: This is an analytical cross-sectional study with 10 to 14 year old as the study population conducted among 6th to 8th grade students (who were selected randomly using their attendance record numbers) of two randomly selected schools in Chennai. Internet Gaming Disorder Scale Short Form and Parent version of Young Diagnostic Questionnaire was used along with self-report forms. The data was collected from the students for internet gaming disorder and their parents for the parental perception of problematic internet usage over

a period of two months. The data was entered in MS excel and was analyzed using SPSS software.

RESULTS: Prevalence of IGD-2.1%, PIU-16.8%, significant correlation present ($p < 0.001$). 72.8% adolescents with access to private device played video games. IGD and PIU adolescents played for a significantly greater number of hours per day on weekdays and weekends. Parents also perceived a significant reduction in physical activity, academic performance and interaction of child with family.

CONCLUSION: 2.1% had IGD, 16.8% had PIU (parental perception) and both had a highly significant correlation. Reduction in physical activity, academic performance and interaction with family was perceived by the parents. Moderation in amount of usage and increase in physical activity will be beneficial along with safe internet and gaming practices.

KEYWORDS: Adolescents, internet, gaming, health



A Qualitative Study on The Views of Medical Professionals To use Artificial Intelligence in Respiratory Medicine

Dr. S. Sangeetha, Dr. J.Prabakaran

VMKV MEDICAL COLLEGE & HOSPITAL,
MADHA MEDICAL COLLEGE& HOSPITALS

BACKGROUND - Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to analyze and act for the specific task. The application of AI in health care have been expanding but there are challenges prevailing in its implementation. This study aims at the views of medical professionals in implementing artificial intelligence in health care, particularly in diagnosing and managing respiratory diseases under tertiary health care setting

METHOD - Four focus groups discussions based on information saturation method were conducted among medical professionals with different specialties. A set of thematic areas was prepared to conduct the FGDs based on the literature review like uses of technology in health, advantages and disadvantages of technology, knowledge on artificial intelligence (AI), challenges in implementation of AI in diagnosing and managing respiratory diseases

and possible ways of Implementation of AI were predominantly covered in the FGDs.

RESULTS - 75% gave the positive comments on the use of AI in health care. AI can be used in respiratory tract disease management mainly symptoms screenings, monitoring of treatment and follow up. The areas of allergen identification, Tb adherence, air pollution monitoring, assessment of spirometry, heart and lung sound assessment, ICU, bronchoscopy, X ray screening, ECG and cancer screening can be useful.

CONCLUSION - Health professionals are welcoming the AI which helps health care provider and patients even in primary health care settings. The AI technology has great role in respiratory care services, but certain level of resistance is prevailing among health care providers and limited availability of algorithm for hospitals.

KEY WORDS: Artificial Intelligence, Health care, Respiratory Medicine.

Kap Related To Medically Certified Cause of Death(Mccd) for Home Deaths In Rural Areas of Villupuram District, Tamil Nadu, 2022

Dr. Abishek.S, Dr. SelvaVinayagam T.S, Dr. Porkodi.S

DIRECTORATE OF PUBLIC HEALTH & PREVENTIVE MEDICINE

BACKGROUND: Globally 53.4% deaths occur at home with no properly assigned cause of death. In India, there is almost 53% home deaths and 45% of total registered deaths have no medical attention in 2020. In Villupuram district 81% are home deaths of which 85% contribution with 0.2% MCCD coverage noted in Village Panchayat during March-May 2022. The objective is to understand the knowledge, attitude and practices from the family members of deceased, related to non-availability of MCCD for those who died at home (non-institutional) in the rural areas of Villupuram district.

METHODS: It was a descriptive cross-sectional study in two Taluks (Vikravandi & Vanur) in Villupuram district among any one family member of those who died at home between 1st March 2022 to 31st May 2022. Data collected through semi-structured questionnaire using Health Care Workers (HCW). Proportions would be calculated regarding the knowledge, attitude and practices as responded by the family members of the deceased

RESULTS: We interviewed 525(88%) relatives of the deceased, of which 93 % personnel died at home. Among home deaths 32% have received medical attention 30 days prior to death in which 6% received MCCD. Among the home deaths, it was noted 22% among those died in home was brought to home by against medical advice from hospitals of which 3% received MCCD. Among home deaths 5% received MCCD. The reasons for not attempting death certificate among home deaths were they didn't know about MCCD (72%), the cause of death of the deceased were assumed by the relatives (22%), none of the officials asked MCCD (4%) Others (2%).

CONCLUSION: This study's findings call for community-based awareness programs to provide a simple, clear and understandable message to reinforce knowledge about MCCD through Health Care Providers to create awareness on importance of population level cause-specific mortality statistics. Targeted training for doctors and Registrars on proper capture of MCCD should be recommended.

KEYWORDS: MCCD non-availability, Home deaths





Can Adoption of Schools by Mbbs Interns Strengthen School Health Programme? – An Interventional Study

M. Priyadarshini, Y. Padmasri

ANDHRA MEDICAL COLLEGE, ANDHRA PRADESH

One of the wisest investments developing nations can make in their quest for long-term economic and social development is in adolescent health education. Though Government is making its efforts to strengthen adolescents through school health programme, almost 25% of girls and boys do not receive any of the four school-based services (mid-day meal, biannual health checks, biannual deworming, and weekly iron folic acid supplementation) and none met the necessary 60 minutes of outdoor sports and exercise per day as per UNICEF India report ,2019. Closing this gap is crucial to ensure healthful impact on their lifestyles throughout their lives.

OBJECTIVE: To assess the effectiveness of school adoption intervention on health behaviours among the students of grade 8th.

METHODS: A theory-based interventional study was conducted among 80 students of grade 8th at a Govt ZillaPrishad High school, Visakhapatnam. A 2-week health education intervention on knowledge, attitude, and

practice of health behaviours were conducted by MBBS Interns. Attitudes & practice of students towards healthy behaviours was assessed before and after intervention using a self-administered validated questionnaire.

RESULTS: (RESULTS ARE PRELIMINARY): The post-test responses from the students showed a 60% positive shift compared to 1-2 days of physical activity, 1-4 days of eating fast food per week, and >1 hr to 4 hrs/day of screen usage among 30%, 35%, and 50% of the students, respectively. The students' attitudes toward obeying to road safety rules, alcohol, tobacco, and sexual hygiene also showed beneficial changes.

CONCLUSION: The MBBS Interns' school adoption intervention enhances students' commitment to healthy behaviours by reinforcing the objectives of school health programme.

KEYWORDS: High school students, Health education, school adoption by MBBS Interns, Healthy lifestyle



**LAB DIAGNOSTICS
AND GENOMICS**

1922 - 2022

An Assessment of Government Primary Health Centre's Laboratories Quality by External Quality Assurance Scheme in Thanjavur District, Tamil Nadu, India - 2017 – 2021

V. Gurunathan, Dr. Namasivayam and Dr. Adalarasi
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: External Quality Assurance Scheme (EQAS) involves evaluation of a number of laboratory basis on their analytical performance of tests on samples supplied by external agency-CMC Vellore. EQAS performance has been shown on Laboratory testing quality in clinical specimen to provide accurate test reports to prevent non communicable diseases.

METHODS: In Thanjavur District, all participate Government Primary Health Centre's laboratories EQAS monthly performance were evaluated for clinical biochemistry of Glucose, Creatinine and Cholesterol in terms of the performance statistic indicator SDI . used by CMC Vellore for the period of 2017 to 2021.

RESULTS: On analyzing SDI Range of each three parameters for the study period 2017 to 2021, Based on SDI ≤ 1.0 Excellent., 1.01 - 2.0 Good, 2.01 - 2.9 Accept with caution.

Warning Signal. >3.0 Unacceptable performance. Action Signal. The study revealed, the number of participants for three parameters for 2017,2018,2019,2020, and 2021 are 16,26,29,77 and 77 respectively. For good performance for Glucose, in 2017, 100% - nil, in 2018, 100% - nil, in 2019, 100% - nil, in 2020, 100% - 23, , in 2021, 100% - 31, For good performance for Creatinine, in 2017, 100% - nil, in 2018, 100% - nil, in 2019, 100% - nil, in 2020, 100% - 20, in 2021, 100% - 28, For good performance for Cholesterol, in 2017, 100% - nil, in 2018, 100% - nil, in 2019, 100% - nil, in 2020, 100% - 19, in 2021, 100% - 20.

CONCLUSION: Along with strong performances giving patients trust in receiving accurate test findings, inconsistencies in our performances enabled us greatly to improve the quality of our laboratory procedures.

KEYWORDS: EQAS, SDI, Thanjavur

Utility of a Realtime Multiplex Pcr For Detection of Respiratory Pathogens In Children With Pulmonary Tb

Priya Rajendran, Thirumalani Ramamoorthy, Sindhu Hasini, Sivaraman Palanisamy, Syed Hissar, Elilarasi Selladurai, Sarath Balaji, Ganesh Jayachandran, Aravind Malayappan

ICMR - NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, INSTITUTE OF CHILD HEALTH, STANLEY MEDICAL HOSPITAL,

BACKGROUND: It has been reported that differential diagnosis of bacterial or viral pneumonia and tuberculosis in infants and young children is complex. This could be due to the difficulty in microbiological confirmation in this age group. In this study, we aimed to assess the utility of a real time multiplex PCR for diagnosis of respiratory pathogens in children with pulmonary TB.

METHODS: A total of 189 respiratory samples (bronchoalveolar lavage (15), gastric aspirates (98), induced sputum (23), and sputum (53)) from children aged 3-12 years, attending tertiary care hospitals, Chennai were included in the study. The samples were processed by NaLC NAOH treatment and subjected to microbiological investigations for M. tuberculosis (MTB) diagnosis that involved smear microscopy, Xpert® MTB/RIF testing and liquid culture. In addition, DNA extraction from the processed sputum was carried out in samples positive for MTB and was subjected to Bacterial, fungal and viral real time multiplex PCR.

RESULTS: Out of 189 samples tested, a total of 20 samples were positive for MTB by either one or more identification method (Smear, Culture and Genxpert). Out of these 20 MTB positive samples, 15 were positive for one or more bacterial or fungal pathogen with different CT value. The common pathogens identified were S. pneumoniae (9/20), H. influenzae (6/20), P. aeruginosa (5/20), A. baumannii (3/20), P. jirovecii (3/20), Bordetella spp. (2/20), E.coli (2/20) and M. catarrhalis (1/20), K. pneumoniae (1/20), A. flavus (1/20), and A. fumigatus (1/20). Among 20 MTB positive samples tested for viral PCR, one sample turned out to be positive for Influenza virus.

CONCLUSION: The results suggest that tuberculosis could co-exist with other respiratory pathogens causing pneumonia. However, a large scale prospective study from different geographical setting that uses such simultaneous detection methods for diagnosis of childhood tuberculosis and pneumonia will help in assessing the utility of these tests in rapid diagnosis of respiratory infections.

Subtype Discordance Between Circulating and Archived Virus In a Hiv-1 Infected Elite Neutraliser

Lucia Precilla K, Cheedarla N, Hemalatha H, Manohar Nesakumar, Ramesh K, Ashokkumar M, Sandhya V, Anuja S, Sangeetha A, Sudhakar N, Hanna LE
DEPARTMENT OF VIROLOGY AND BIOTECHNOLOGY, ICMR-NIRT

BACKGROUND: The major challenges to HIV cure is the presence of latent cellular reservoirs that contribute to sustained viral persistence in the presence of antiretroviral therapy and viral rebound during treatment interruption. We compared the genetic concordance/discordance between viral populations present in plasma and proviruses in peripheral blood mononuclear cells (PBMC) in a HIV-1 Elite Neutralizer.

METHODS: Plasma HIV-1 RNA and proviral DNA were extracted from an asymptomatic, ART naïve, HIV-1 infected individual whose plasma had broadly cross-clade neutralizing antibodies. The full-length envelope gene was PCR amplified using a nested approach and the amplicons were sequenced using ABI3500 genetic analyser. Sequence analysis was performed using the HIV-1 Los Alamos sequence database, COMET and REGA for HIV-1 subtyping, and Molecular Evolutionary Genetics Analysis (MEGA-X) for genetic diversity and phylogenetic analysis.

RESULTS: Subtype analysis showed a discordance between HIV-1 subtypes present in

the two compartments. While the archived virus in the PBMC compartment belonged to subtype C, the circulating virus present in the plasma compartment was found to be subtype B. The archived proviral DNA revealed the presence of APOBEC3G-mediated hypermutation with the presence of 17 stop codons. The mean genetic distance between plasma and PBMC virus sequences was >0.2 and the mean distance between viral sequences within each compartment was <0.2 .

CONCLUSION: This unique neutralizer exhibited a high level of genetic diversity in the viral sequences present in the two compartments. While it may be suggested that the discordance of subtypes between the plasma and proviral compartments could be due to mixed infection, reinfection or lethal mutation to escape virus neutralization resulting in adaptive evolution, it is also possible to conclude that perhaps there is an unknown source besides the PBMC compartment that is contributing to active viral replication and viremia in this individual.

KEYWORDS: Compartments, HIV, Elite neutralizer, Subtype discordance

Correlation of Ct Value of Real-Time Rt-Pcr At Diagnosis of Sars Cov-2 Infection and Severity of Covid-19 Disease

Sudhakar Natarajan, Narayanasamy K, Mohan Ranganathan, Manohar Nesakumar, Natarajan P L, Anbalagan S, Lucia Precilla K, Hemalatha H, Kannan M, Narendran G, Mahalakshmi S, Gomathi Karmegam, Lakshmi, Prakash, Padmapriyadarsini C, Luke Elizabeth Hannalayappan

(ICMR) – NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS (NIRT), CHETPET, GOVERNMENT CORONA HOSPITAL (GCH), GUINDY

BACKGROUND: Real-time reverse transcriptase-polymerase chain reaction (rRT-PCR) of nasopharyngeal and oropharyngeal swab has been the gold standard test for detection of SARS CoV-2 infection. The relationship between cycle threshold (Ct) value of SARS-CoV-2 rRT-PCR and severity of disease remains disputable and largely undefined in Coronavirus disease 2019 (COVID-19).

METHODS: In the present study nasopharyngeal (NP) swab samples were collected from 240 COVID-19 affected individuals at the time of admission at the Government Corona Hospital (GCH), Guindy, Chennai. The samples were collected by trained healthcare workers during February 2021 (end of first wave) to March 2021 (beginning of second wave) and in the month of August 2021 (second wave). We correlated the Ct value of rRT-PCR of SARS CoV-2 infected individuals with a diverse range of symptoms and disease severity among 240 individuals who were hospitalized with mild (n=160), moderate (n=46) and severe (n=34) COVID-19.

RESULTS: The median Ct of mild COVID-19

patients was 24.0 (Inter quartile range 19.0 to 29.0), moderate COVID-19 was 28.0 (IQR 19.0 to 31.0), and severe COVID-19 with ARDS was 24.0 (IQR 0 to 28.5). We compared the Ct value of ORF1 ab gene in the mild, moderate and severe COVID-19 groups but found that there was no significant difference in Ct value between the different groups. The Ct value of the ORF-1 ab gene of SARS CoV-2 differed significantly between males and females ($p < 0.05$), and between those with and without diabetes co-morbidity ($p < 0.05$) in the moderate COVID-19 group. However, there was no significant association between Ct value and disease severity or presence of co-morbidity among the mild and severe COVID-19 groups.

CONCLUSION: We conclude that SARS-CoV-2 Ct value of rRT-PCR alone does not have a role in aiding severity stratification among patients with COVID-19 since the viral dynamics and Ct value may vary due to the emerging variants in different waves of the pandemic.

KEY WORDS: Ct value, COVID-19, SARS CoV-2, RT-PCR, COVID-Diabetes, co-morbidity



A Study on Prevalence of Food Taboos Among Postnatal Mothers in Tertiary Care Centre, Chennai

**Dr. Varshene M, Anjana R, Manigandan S, Ramesh V,
Dr. Evangeline Mary, Dr. Seenivasan P**
STANLEY MEDICAL COLLEGE, CHENNAI.

BACKGROUND: Pregnant women are concerned about the child's health, which is to be born and are strict about their dietary practices. Some change their usual diet practices in such a way, positively, as to increase nutritional intake, while some avoid certain foods, which they used to have normally, in fear of fetal malformations, without any scientific basis, which are termed as Food taboo. The purpose of this study is to find out the prevalence of a wide variety of food taboos and the reasons for its avoidance among the postnatal mothers attending a tertiary care centre in Chennai.

METHODOLOGY: This cross-sectional study was carried out among 170 randomly selected postnatal mothers who delivered at Govt RSRM hospital, Chennai, during a period of three months, by face-to-face interview using a pretested, structured questionnaire containing questions on sociodemographic details, various food taboos and reasons for its avoidance. Data

was entered into Excel and statistical analysis was done using SPSS v.16. P value <0.05 was considered statistically significant.

RESULTS: Out of 170 postnatal mothers, 133 (78.2%) followed food taboos during their antenatal period. The most common food taboo followed was intake of papaya causing contractions (69.2%) followed by intake of black sesame seeds producing a black baby (55.2%). The prevalence of food taboo was significantly high in primi gravida (77.4%) ($p=0.00$)

CONCLUSION: The misconceptions related to pregnancy food taboos should be discouraged as they may restrict women's consumption of nutritious foods which could support maternal health and healthy fetal development. Health providers should counsel pregnant women and their families about appropriate pregnancy nutrition during ANC visits.

KEYWORDS: Food taboos, postnatal, nutrition.

Secondary Data Analysis of Child Sex Ratio at Ariyalur District, Tamil Nadu, India, 2022

Dr. M.Geetharani, Dr. T.S.Selvavinayagam, Dr. Sekar, Dr. Srinivasan, Mrs. Sangeetha, Mr. Saravanan, Mr. Vimal
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Sex ratio is an important social indicator to measure the extent of equality between male and female in a society at a given time period of time. Regarding the census 2011 and 2021, Ariyalur district belongs to 4th and 6th lowest sex ratio districts in Tamil Nadu, respectively. The study focused on describing the time and place distribution of sex ratio at birth and to estimate the magnitude of missing female child.

METHODS: This descriptive study was carried out between April 2011 to March 2021 by using previous year's data (Form 9/PIGME) census and SRS. It includes live births and still births. We calculated decadal trends and place distribution for child sex ratio, sex ratio at birth and also by birth order. We calculated female live birth proportion by order of birth by chi square analysis for linear trend. We estimated Pre and post birth girl deficit.

RESULTS: The decadal trend of child sex ratio was decline during the past 2011-2022 from 1015 to 973, respectively. Sex ratio at

birth (SBR) showed an overall declining trend despite fluctuations, magnitude of declining trend was much for rural. Regarding 3rd order births observed female live births were lower than expected female live births at all six blocks (SBR < 800), lower 2nd order observed female births (SBR (801-900) in Sendurai and Jeyamchondam blocks, and lower 1st order observed female live births in Thirumanur block (SBR (801-900). Female still birth ratio increased over the decade from 726 to 1146. Association between the proportion of observed female live birth and pre-birth deficit of girls on over the decades ($P < 0.001$).

CONCLUSION: Declining Child Sex Ratio is mainly due to declining Sex Ratio at Birth. Decreasing trend of Sex ratio at Birth and female live births proportion decreases with increasing order of birth. Its need implementation of Pre-conception and Pre-Natal Diagnostic Techniques Act, 1994 and Pregnancy Cohort Monitoring to the full extent.

KEY WORDS: Sex ratio, Child Sex Ratio, Ariyalur, Pre-birth deficit

Post-Partum Hemorrhage - No More a Nightmare

Dr. D. Jayakumar

SRM MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTRE, KATTANKULATHUR

BACKGROUND: post-partum Hemorrhage (PPH) is the most common cause of Maternal death. Many women die in front of doctors due to postpartum hemorrhage. Internal Iliac artery ligation (EIIAL) is done when medical measures fail. Occasionally this also fails and women die.

METHODS: 22 years old Primi delivered a female baby by LSCS. She had severe PPH. Since the Blood pressure was very low, patient was kept in Trendelenburg position. Infundibulopelvic ligaments containing ovarian artery and pampiniform plexus of veins were ligated. Internal Iliac artery ligation also done. bleeding stopped and patient shifted to ICU. Patient had severe bleeding and stopped when the patient was kept again in Trendelenburg position. (Lisa the story). Trendelenburg position maintained till the Uterus contracted.

RESULT: The arterial blood supply is interrupted; the ovarian veins are also ligated. The only patent vascular connection to the Uterus is Uterine Veins. Hence bleeding stopped. The arterial bleeding in PPH will decrease as the blood pressure falls whereas the reverse venous blood flow continues to bleed till the last drop of the blood in the body.

CONCLUSION: the bleeding in severe Atonic PPH is the arterial bleeding and gravity aided reverse venous bleeding. The venous component can be prevented by keeping the patient in Trendelenburg position. Trendelenburg position also decreases arterial bleeding.

KEY WORDS: Maternal Mortality, Post-partum Hemorrhage, Trendelenburg position, Reverse Venous blood flow.

Effect of Covid-19 Pandemic on Maternal and Child Health Care in Bengaluru – A Cross Sectional Study

Saraswathi S, Vinaykumar Ganesh Hegde, and Ranganath T S

BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE, BENGALURU, INDIA

BACKGROUND: Maternal and child health care is a fundamental service of the public health delivery system of a nation, especially in low and middle-income countries like India. As per NFHS-5, current maternal mortality ratio (MMR) in India is 103 per 100000 live births and the infant mortality rate (IMR) in India is 28 per 1000 live births. As the Covid-19 pandemic continued throughout the world, the health services such as maternal and child health (MCH) remained in inertia. Stringent lockdown measures and fear of contracting Covid-19 infection made accessing these services extremely hard. Hence, this study aims to assess the utilization of Maternal and Child Health care during Covid-19 pandemic and to assess the effect of the pandemic on pregnancy outcome.

METHODS: A cross sectional study was conducted in a tertiary care maternity hospital in Bengaluru from July to September 2021 among the post-natal mothers using a semi-structured questionnaire about the utilization of MCH services.

RESULTS: A total of 316 mothers were interviewed. Among them, 72.8% mothers had completed 4 or more antenatal visits. Among high-risk pregnancies, only 66.3% had completed adequate antenatal visits. 38% of infants had low birth weight and there was a significant difference between the birth weights of children whose mothers completed 4 antenatal visits and those who did not complete (p value <0.001). 83.4% of children were immunized up to date.

CONCLUSION: This study showed that, more than 1/4th of mothers had not completed 4 or more antenatal visits and about 1/3rd of the high-risk mothers had not completed adequate antenatal visits. More than 1/3rd of infants had low birth weight. This shows that there was a marked reduction in the utilization of MCH services during the Covid-19 pandemic.

KEYWORDS: Covid-19, Pandemic, visits

A Study on The Utilization of Post Natal Care In a Tertiary Health Care Centre, Chennai

Thithiksha V, Dr. Krithiga S, Dr. Seenivasan P
STANLEY MEDICAL COLLEGE, CHENNAI.

BACKGROUND: Post-partum period is the period following pregnancy and eventual delivery and is defined as the period starting from childbirth until 6 weeks after delivery. Postnatal period is the most neglected period for the provision of quality services. Awareness regarding postnatal care and their proper utilization is needed to reduce complications. Therefore, this study is done to assess the awareness regarding postpartum problems and the utilization of postnatal care services.

METHODOLOGY: A cross sectional study was conducted among 180 postnatal women within 6 weeks after delivery attending the outpatient department within July - September 2022 using a semi-structured questionnaire containing information on socio-demographic details, awareness regarding postnatal problems, utilization of postnatal care services and childcare. Data was entered in MS EXCEL and analyzed using SPSS 16. Chi-square test was used. P value <0.05 was considered statistically significant.

RESULTS: Among the 180 study participants, more than 70% were aware of episiotomy wound care or cesarean scar care, postpartum contraception, notification of childbirth, prelacteal and extralacteal foods, breastfeeding position and received counselling regarding breastfeeding. More than half of the participants were aware of the immunization schedule. However, awareness regarding danger signs, postnatal exercise and umbilical cord care was low. 90.6% did not visit hospital for regular postnatal checkup. Only 23.3% took postnatal iron supplements.

CONCLUSION: Mothers should be encouraged for regular postnatal checkup and intake of iron supplementation. Health education and interventions are necessary to create awareness regarding danger signs, postnatal exercise and umbilical cord care.

KEYWORDS: Postnatal care, Awareness, utilization

Efficacy of Maternal Empowerment Program to Reduce Stress, Anxiety and Depressive Symptoms in Antenatal Mothers

S. Kalyani

CHETTINAD ACADEMY OF RESEARCH & EDUCATION, INDIA

BACKGROUND: Maternal Mental Health is a priority in Public Health due to its impact on the mother and infant Health. Despite the growing number of studies to assess the prevalence of perinatal distress in India, there is a paucity of research to develop a program to empower mothers with the knowledge, skills and techniques to handle the challenges during the antenatal and postnatal phase. The main objective of the study is to assess the effectiveness of the Maternal Empowerment program in reducing stress, anxiety and depressive symptoms among antenatal mothers.

METHODS: A sample of 132 antenatal mothers (between 24 – 34 weeks of pregnancy) were assigned to experimental group and control group (n=66 each). The experimental group received 9 sessions of the maternal empowerment program and the control group received one antenatal education session and usual care. The samples were recruited through stratified randomized sampling method from selected hospitals across Tamil Nadu. The DASS – 21 (Depression, Anxiety and Stress Scale) has been used to assess the level of distress before and after the maternal empowerment program.

RESULTS: The outcome variables measured were stress, anxiety and depressive symptoms. The statistical analysis revealed a significant difference in the level of depression ($p=0.004$), anxiety ($p=0.00003$) and stress (0.0002) scores between the experimental and control groups. The antenatal mothers in the experimental group experienced a significant reduction in depressive symptoms, anxiety and stress levels after the completing the maternal empowerment program.

CONCLUSION: Prioritizing maternal mental health during the antenatal phase acts as a primary prevention for the development of postnatal mental health issues. The maternal empowerment program is effective to reduce stress, anxiety and depressive symptoms and promote psychological wellbeing among antenatal mothers. As the program is delivered through the online mode, it helps antenatal mothers overcome structural barriers, promotes help seeking behavior and ensures cost effectiveness.

KEYWORDS: maternal mental health, maternal empowerment, online mode, perinatal distress

Determinants of Anaemia Among Pregnant Women In India: Findings of NFHS-5

Dr Giridharan S, Dr Yukti Bhandari, Dr Madhu Gupta
PGIMER, CHANDIGARH

BACKGROUND: Over 1 lakh women and nearly 6 lakh kids die each year as a result of anaemia throughout the childbearing period, during birth and post-delivery. There are consequences of gestational anaemia such as miscarriage, small-for-gestational-age (SGA) fetuses, antepartum, intrapartum/ postpartum bleeding, delivery complications, preterm birth, low birth weight (LBW) babies, stillbirths, and maternal mortality are more common in developing countries. Women's maternal and socio-demographic characteristics also influence the distribution of anaemia and should be considered in designing preventive interventions for anaemia in pregnancy. The present study was conducted to identify the determinants of antenatal anaemia in India.

METHODS: The National Family Health Survey's fifth round of data served as the foundation for this investigation (NFHS-5). The study was built on the assessment of its data. It included 28,407 women who were pregnant at the time of data collection all over India. The decomposition analysis was carried out using

Fairlie decomposition technique to constrain the predicted probability between 0 and 1.

RESULTS: The prevalence of anaemia was found to be 48.5% among pregnant women. Anaemia was maximum in the second trimester (41.2%) and in the 20-29 years age group (72.1%). Decomposition analysis determined the significant contributor to inequality among anaemic pregnant women. The analysis showed that the level of education among women (34.6 %), followed by the type of cooking fuel used (13.6%) and rural area of residence (10.8%), were the significant contributors to the prevalence of anaemia.

CONCLUSION: Improving the literacy rate, and health services in a rural area might help fight against the prevalence of anaemia. The cooking fuel used must be looked upon and appropriate strategies like using LPG gas and smoke outlets in kitchen must be considered.

KEYWORDS: Pregnancy, Anaemia, determinants, India, NFHS-5

Swot Analysis of Health Care Financing Scheme In A Tertiary Care Hospital – Patients’ Perspective

Dr. K. Sunitha, Gowtham Raja. S, Dr. Sivakami
TIRUNELVELI MEDICAL COLLEGE, TIRUNELVELI.

BACKGROUND: Health insurance schemes are an emerging tool for providing financial protection against health -related poverty. Research on impact of publicly financed health insurance has paid relatively little attention to the nature of health care provision the schemes engage. Enhancing patients’ satisfaction through providing high quality services is an important goal of a hospital. This study aims to describes the Strength, weakness, opportunity and threats of Health Insurance Scheme operational in Tamil Nadu state and explored the perceived satisfaction of insured clients in healthcare financing services at a government tertiary care hospital.

MATERIALS AND METHODS: A cross sectional study was done among 200 respondents availing health care services under health financing scheme in Tirunelveli Medical College Hospital. by using systematic random sampling technique. Data were collected through HealthQual tool questionnaire- which includes five domains-Empathy, Tangible, Safety, Efficiency and Improvements of care

service) for quantitative element and focus group discussion for the qualitative element to assess the patient’s perspective

RESULTS: Out of 200 insured patients, 59.5% patients were benefiting for the first time from the health insurance scheme. The Strength is 95% of the patient feel the scheme is beneficial to them and their family. Weakness is the increased hospital stay reduces the satisfaction level. Opportunities is 80% of the patients believe that their out-of-pocket expenditure on health has reduced because of this scheme. Threat being the application process Overall rating on quality of health services is empathy was 3.9, tangible was 3.9, safety 3.9, efficiency was 3.8 and improvements of care services were 3.9.

CONCLUSION: Improving the montage benefits and disease coverage in the existing scheme would be more beneficial in terms of achieving the goal: The quality of services can be improved to a maximum potential so that access to good quality of health care services will be feasible for all.

Determinants of Children Anemia Status In Districts of Tamil Nadu by NFHS-5 Data: A Spatial Prediction

Dr. H. Gladius Jennifer

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, INDIA

BACKGROUND: Anemia is an indicator of poor nutrition and health, which involves global nutrition targets such as stunting, wasting, low birth weight. In order to promote human capital development & their nation's economic growth, long term health, wealth and well-being; Policymakers should consider prioritizing the actions, to reach global nutrition target of 50% reduction of anaemia. Around 89 million of children were suffering with anemia in India. The present study aims to find the potential factors predicting children anemia with existing data source NFHS 5.

OBJECTIVE: To determine the associated risk factors of child anemia at the district levels in Tamil Nadu by spatial regression models.

METHODS: The secondary data was extracted from district level fact sheets of NFHS 5 for Tamil Nadu which got published in 2021. The dependent variable was child anemia; independent variables were water, sanitation, electricity, iodine intake, women literacy, age at marriage, family planning methods, IFT intake, anemia level among women; regarding children early initiation, EBF, weaning practices,

diarrhea and ARI within 2 weeks, stunted, wasted were considered for the analysis. The extracted data was merged in QGIS software with spatial coordinates. After creating base map, was analyzed in GeoDa software. The descriptive statistics, Moran I plot, and Spatial Regression Models were calculated with 5% level of significance.

RESULTS: The result of the study explains strong correlation of child anemia with women anemia by Moran I plot. Spatial regression models explained significant association of child anemia with women literacy, anemia, pregnancy, smoking and alcohol consumptions; similarly, diarrhea, ARI within 2 weeks, severe stunting and wasting, diet pattern of children had significant association with their anemia.

CONCLUSION: Apart from interventions, supplements of multi-micronutrients, immunizations, health educations our health system can identify collaborative partners at each sector, reviewing existing national programs, developing monitoring and evaluation plan with proper indicators will help to achieve targets regarding children anemia in Tamil Nadu.

Infant and Young Child Feeding Practices Prevailing In The Rural Community - A Cross Sectional Study

Dr. Mohamed Aarif N, Dr. Padmaja R walvekar
JNMC, KAHER, BELGAUM, INDIA

BACKGROUND: Infancy and early childhood is most crucial period for a child's growth and development. As the child needs more nutrition during this period, an appropriate and adequate infant and young child feeding practice have a profound impact on child's survival as well as the physical, social, cognitive development and also protects against infections.

METHODS: A cross sectional study was conducted among the mothers with children aged 6 months to 24 months residing in rural field practice area of Belagavi, data was collected in between Jan 2021- Dec 2021. Sample size was calculated as 782. Systematic sampling method was used for selecting the sample. Data was collected using the questionnaire based on IYCF guidelines. Data analysis was done using SPSS 23.

RESULTS: Total of 782 children were participated in the study 394(50.4%) males and 388(49.5%) females. Around 29% of the mother had not received adequate antenatal care, 13% initiated breastfeeding after 1 hour. 18% had given prelacteal feeds, almost all of them gave colostrum. and 78% gave exclusive breastfeeding for 6 months and 80% had initiated complimentary feeding at 6 months. Only 42.2% child had minimum acceptable diet and 11%,2%,2%,3% were wasted, stunted, overweight and underweight respectively.

CONCLUSION: Various inappropriate feeding practices were prevailing in the study participants. Malnutrition was found more among children who did not have minimum acceptable diet, other poor feeding practices.

KEYWORDS: (IYCF, breast feeding, prelacteal feed)

A Cross Sectional Study To Assess The Prevalence of Second Trimester Abortions At Krishnagiri District, Tamilnadu

Mrs. S. Beulah Angeline

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Second trimester abortion is termination of pregnancy in a period from 13 to 28 weeks of gestation, which are considered unsafe, and contribute to maternal deaths. The aim of the study is to assess the prevalence of Second Trimester abortions in Krishnagiri District, Tamil Nadu as a strategy to reduce Maternal mortality rate and improve Sex ratio.

METHODS: A retrospective descriptive design is used in this study. The whole of the Krishnagiri HUD population 21, 33, 556 was included and studied to analyze the Second Trimester abortions among the 10 blocks for the period of April 2022 to July 2022. Total enumeration sampling technique is used in this study. The total number of samples included in the study are 176 mothers who had Second trimester abortions reported by the concerned medical officer, respective primary health centre. A structured Second Trimester abortion reporting format approved

by the District Chief obstetrician was used in the study.

RESULTS: Total Antenatal Registration done from April 2022 to July 2022 in Krishnagiri District is 10312. Out of which 176 (1.71%) of mothers has had second trimester abortion. Abortion cases are highly reported in Kaveripattinam Block (2.53 %), Kelamangalam Block (2.47 %), Vepanapalli Block (2.42 %), Shoolagiri Block (2.21 %), Uthangarai Block (2.19 %). 24 (13.6 %) of the mothers are less than 19 years, i.e., teenage pregnancy.

CONCLUSION: The prevalence of induced second trimester abortion is high despite the availability of safe first trimester abortion services. Counseling should be given for mothers to early recognize their pregnancy and to make decisions to continue or not as early as possible.

KEYWORDS: Second trimester abortion, prevalence

Analysis of Maternal Deaths In Tiruppur District, Tamil Nadu, India, 2014-2022

Dr. Akilan Ramani Dhanasekaran, Dr. Jeromie Wesley Vivian Thangaraj, Dr. Jagadeesh Kumar and Dr. Jaya Priya C

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE ICMR - NIE, INDIA

BACKGROUND: Globally, 810 maternal deaths occur every day and it has reduced by 38% from 2000 to 2017. Indian scenario shows a declining trend in Maternal mortality ratio from 2009(212) to 2019(103). Tamil Nadu is one among the major Indian states with very low maternal mortality ratio. But in the year 2021-22, in Tiruppur district, MMR was very high when compared with that of state and country for year 2021-22. So secondary data analysis was done to describe trends in maternal deaths, their distribution by demographic characteristics, by blocks and causes of maternal deaths in the district.

METHODS: We did a Cross-sectional study with study population of 'All WHO defined maternal deaths' in Tiruppur between April 2014 to February 2022. Source of Maternal death data were from the office of DDHS Tiruppur and Live birth data from HMIS portal, Tamil Nadu. Data were cleaned in Microsoft Excel and analyzed using Epi info.

RESULTS: It was seen that MMR of Tiruppur was always high when compared to that of

Tamil Nadu from 2014-2022. MMR was high in the southern blocks of the district over the years. Also, MMR of Non-Hindu women, Scheduled caste & scheduled tribe's women and women with gravida 3 or more were high, while most maternal deaths occurred during postnatal period. Maternal death due to direct causes contributed to two thirds of the overall maternal deaths.

CONCLUSION: It was concluded that Maternal mortality ratio of Tiruppur district in the year 2021-2022 is twice than that of previous year. There was also increase in maternal death due to Covid-19 in the year 2021- 2022. It was recommended that standard Covid-19 treatment protocol should be in place while treating Covid 19 affected mothers. Also, since MMR was high in non-Hindu, SC/ST and Gravida 3 & more women, further studies were recommended.

KEY WORDS: Tiruppur, Maternal death, MMR

Pregnancy Wastage (Abortion) Trend In Thanjavur District, Tamil Nadu, India

T. Ravichandran, Dr. Namasivayam

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Each and Every Pregnancy Mother has been registered by the area Village Health Nurse below 12 weeks of Pregnancy. The Government goal is to reduce the Pregnancy wastage like Still birth and Abortion. We have to analyze the trend of Pregnancy Wastage. Data is collected from the tnemis.org website for the last 10 years from 2012-13 to 2021-22. Regular follow up of AN Mothers by the VHN is the one of the important works. Need of the Study is the irregular trend of Pregnancy wastage for the last 10 years.

METHODS: The data available in the tnemis web portal is used for this study as a secondary data at Primary Health Centre level. Percentage of Abortion is calculated as number of Abortions occurred in the specified period like a year is divided by the AN mothers registered during the same period by the Village Health Nurse at HSC level.

RESULTS: Approximately 33,000 AN Mothers were registered every year and nearly 2000 abortion were reported every year. Percentage of abortion for the year 2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, 2020-21 and 2021-22 was 7.7, 7.0, 6.4, 7.3, 5.6, 4.5, 5.5, 5.8, 8.3, 7.1 respectively as per tnemis software. Out of 5 to 8% of total abortions, nearly 2 to 3 % of MTP and 3 to 5 % of Spontaneous Abortions were reported for the last 10 years. A reasonable increase in the abortion level during 2020-21 & 2021 -22 as compared to the last 2 years 2018-19 & 2019-20.

CONCLUSIONS: Thanjavur District had the burden of increasing trend in Pregnancy wastage, and we recommended to improve the performance Mother and Childcare activities at various level.

KEYWORDS: Pregnancy Wastage, tnemis, Thanjavur

A Cross Sectional Study to Assess The Adherence to National Immunisation Schedule and The Reasons for Non-Adherence Among Mothers Attending Tertiary Care Centre, Chennai

Dr. Saranya P, Dr. Evangeline Mary, Dr. Seenivasan P
STANLEY MEDICAL COLLEGE, CHENNAI.

BACKGROUND: Childhood immunization is amongst the most cost-effective public health interventions for reducing children's morbidity and mortality. Yet over 1.5 million children below the age of five die annually from vaccine-preventable diseases globally. Adherence to routine immunizations is crucial in minimizing the susceptibility to vaccine-preventable diseases and their outbreak. The present study is conducted with the objective of identifying the factors related to adherence to routine immunization service.

METHODS: This cross-sectional study was conducted among 310 randomly selected mothers, during a period of 3 months to assess the adherence to immunization by face-to-face interview method using a pretested, structured questionnaire containing sociodemographic details, immunization details and reasons for non-adherence. Data was entered into Excel and statistical analysis was done using SPSS v

.16. P value <0.05 was considered statistically significant.

RESULTS: Out of 310 children, 98(31.6%) had delayed vaccination. The most common reasons reported for non-adherence was the child was sick (53%), followed by carelessness (30.6%) and lack of awareness. There was a significant relationship between nonadherence and mother's education and order of birth.

CONCLUSION: Delayed vaccination was observed in 31.6% of the children, which represent an alarming percentage. Adherence to routine immunization and vaccination timelines is crucial for providing maximum effectiveness against vaccine-preventable diseases in the community. More focus on efforts to increase both vaccination coverage and awareness among parents on timeline adherence to schedule is needed.

KEYWORDS: Adherence, Immunisation

A Cross Sectional Study to Assess The Indications and Factors for Cesarean Section in A Government Tertiary Medical College Hospital, Chennai

Sutharsun V, Vigneshwaran S, Vignesh A, Dr. Krithiga S, Dr. Seenivasan P
STANLEY MEDICAL COLLEGE, CHENNAI.

BACKGROUND: Cesarean section is an operative procedure whereby foetus after end of 28th weeks are delivered through incision on the abdominal and uterine wall. There are increasing rates of cesarean section across the world above the WHO threshold of 15%, which is an alarming concern for public health and obstetricians due to increased financial burden and risk to health of the mother in comparison to vaginal delivery. Therefore, the study is done to assess the indications and factors associated with cesarean section.

METHODOLOGY: A hospital based cross sectional study was conducted among 373 postnatal women i delivered between July-August2022 using a semi structured questionnaire. Data collected by face-to-face interview and from case sheet and analyzed using SPSS16. Chi-square test was used. P value <0.05 was considered statistically significant.

RESULTS: Among 373 study participants, majority (80.4%) belong to 20 to 29 years. Mean age is 26 ± 4.14 years. 42.1% were primigravida. Almost all (99.7%) had adequate antenatal visits. Majority had emergency LSCS (84.5%). Most common indication for LSCS was previous LSCS (44.8%), followed by foetal distress (28.2%). Foetal distress (47.82%) was the most common indication among primigravida. There was a statistically significant association between gravida status and type of LSCS.

CONCLUSION: The most common indication among the study participants was previous LSCS, followed by foetal distress, cephalopelvic disproportion, oligohydramnios, while among primigravida, foetal distress was the most common indication. The most common indication for elective cesarean was previous LSCS.

KEYWORDS: Cesarean section, Indications

Trends in Maternal Mortality Ratio, Ariyalur District, Tamil Nadu, India, 2022

Dr. M. Geetharani, Dr. Ezhil bharathi, Dr. T.S. Selvavinayagam, Dr. Sekar, Mrs. Sangeetha, Mr. Saravanan, Mrs. Priyanka

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Maternal Mortality Ratio (MMR) denotes the most sensitive and key indicator of women's health and their status in the society. As per (2021-2022) report maternal mortality ratio in Ariyalur was 112 per 100,000 live births which is highest compared to state average. This study aimed to determine the decadal trends in MMR, identify the causes of maternal mortality and to predict maternal deaths over the period April to March 2023-2024 by Box-Jenkins Methodology.

METHODS: This descriptive study was carried out between April 2013 to March 2021 by using previous year's data from (Form9/PIGME) and SRS. For Box-Jenkins methodology we used to model time series data by using autoregressive moving average (ARMA) which covered the period of 10years, from 2013 to 2021 to describe the trend of maternal mortality and forecast points ahead within a given population.

RESULTS: Maternal mortality ratio (MMR) showed fluctuations, the trend was peak on 2020- 21(139/100,000live births) and lowest on 2019-20(56/100,000). Comparison between 6 blocks, T. Palur block shows the peak level. MMR was high in primi >30 years (32% (11/29), in 3rd. gravid <30 years (34%(7/22), in postnatal (75%(48/64), in government hospitals (72%(66/91)), and 97%(88/91) were booked. Overall, both in antenatal and post-natal period, the cause of death highly notified as sepsis (19% (17/91) and unspecified causes (19% (17/91) followed by Hemorrhage (15% (14/91). In intranatal death (75% (3/4) due to unspecified causes.

CONCLUSION: This study mainly concludes the proper Pregnancy Cohort Monitoring to the full extent. Strengthen the delivery points in government institute.

KEYWORDS: Maternal mortality ratio, Ariyalur, TamilNadu, Box-Jenkins approach

Hiv Drug Resistance Pattern In Vertically Hiv-1 Infected Infants In South India

Ramesh K, Manohar N, Hemalatha H, Kasthuri Chandrababu, Rubini K, Dr. LukeElizabeth Hanna, Dr. Srikanth P Tripathy, Dr. Padmapriyadarsini C

ICMR- NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

BACKGROUND: HIV Drug Resistance (Dr. has been in HIV-positive infants born to HIV-infected women following the use of prevention of mother-to-child transmission (PMTCT) regimens. However, such data are limited in the Indian infant population. Emergence of HIV Dr.in infants could lead to treatment failure and poor survival. We conducted this study to assess the pattern of HIV drug resistance in vertically HIV-1 infected infants from south India.

METHODS: In this retrospective study, dried blood samples (DBS) were obtained from south Indian infants who tested positive for HIV-1 infection while being screened as part of the National AIDS Control Organization's (NACO) Early Infant Diagnosis (EID) program. Genotypic HIV drug resistance testing was performed based on Sanger sequencing using an in-house protocol. Drug resistance mutations (DRM) were identified using the HIV Stanford drug resistance database algorithm. Phylogenetic analysis was performed using MEGA v 6.0.

RESULTS: 115 Reverse Transcriptase (RT) sequences were generated in this study. Among

this, 36% had at least one drug resistance mutation; 31% (n = 36) had DRM to Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTI), 4% (n=5) had DRM to Nucleoside Reverse Transcriptase Inhibitors (NRTI) and 2% (n=2) had DRMs to both NNRTI and NRTI. The most frequent NNRTI mutations were Y181C/CY (n=18, 50%), and K103N/S (n=11, 30%), the former known to cause high level resistance to all NNRTI and the latter to Nevirapine and Efavirenz. HIV-1 subtype C (98%) was most common, followed by subtype B (2%).

CONCLUSION: This study which is the first of its kind in India demonstrated that a considerable number of RT sequences analyzed from vertically HIV-1 infected infants in this population carried at least one drug resistant mutation. Our findings emphasize the need to periodically evaluate the emergence of HIV drug resistance among women as well as infants receiving antiretroviral prophylaxis in the PMTCT program.

KEYWORDS: Infants, HIV 1 Drug resistance, vertical transmission

Immunological Response in Multisystem Inflammatory Syndrome in Children with Cardiovascular Abnormalities

Nathella Pavan Kumar, Aishwarya Venkataraman, Arul Nancy, Nandhini Selvaraj, Kadar Moideen, Shaik Fayaz Ahamed, Rachel Marriam Ranji, C. Poonuraja, Poovazhagi Varadarjan, Elilarasi S and Subash Babu

ICMR- NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS
 INSTITUTE OF CHILD HEALTH AND HOSPITAL FOR CHILDREN
 NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES,
 NATIONAL INSTITUTES OF HEALTH, BETHESDA, MARYLAND, USA

INTRODUCTION: Multisystem inflammatory syndrome in children (MIS-C), a sequelae of severe acute respiratory syndrome coronavirus-2 infection (SARS-CoV2) has been progressively reported worldwide, with cardiac involvement being a frequent presentation. Virus-induced post-infective immune dysregulation appears to play a predominant role in pathogenesis.

OBJECTIVE: To identify potential biomarkers for distinguishing MIS-C children with and without cardiac manifestations

METHODOLOGY: We prospectively examined the plasma levels of cytokines and chemokines in MIS-C children with and without cardiac manifestations.

RESULTS: 152 children with MIS-C were included in this study, of which 58% (88/152) presented with one or more cardiovascular abnormalities and 42% (64/152) had no cardiovascular involvement. MIS-C children

with cardiac manifestations presented with significantly increased levels of cytokines such as IFN- γ , IL-2, TNF α , IL-5, IL-1 β , IL-1 α , IL-6, IL-10 and IL-12p70 and chemokines CCL-2, CCL-3, and CCL-11 and CXCL-10 in comparison to MIS-C children without cardiac manifestations. Clustering analysis revealed that cytokines and chemokines could clearly distinguish MIS-C children with and without cardiac manifestations.

CONCLUSION: Our study shows that MIS-C children with cardiac involvement present with elevated cytokines and chemokines, which can help distinguish them from MIS-C children without cardiac manifestations. The detailed analysis in our study provides additional information and may guide clinicians in the assessment and management of children presenting with cardiac abnormalities in MIS-C.

KEYWORDS: Cardiovascular, MIS-C, PIMS-TS, COVID-19

Heightened Complement Activation is Associated with Multi-System Inflammatory Syndrome and Acute Covid-19 in Children

Anuradha Rajamanickam, Nathella Pavan Kumar, Aishwarya Venkataraman, BinduDasan, Sulochana Putlibai, Shaik FayazAhamed, Nandhini Selvaraj, KalaimaranSadasivam, Balasubramanian Sundaram, Thomas B. Nutman and Subash Babu

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, CHENNAI, INDIA

KANCHI KAMAKOTI CHILDS TRUST HOSPITAL, CHENNAI, INDIA

LABORATORY OF PARASITIC DISEASES, NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES,

NATIONAL INSTITUTES OF HEALTH, BETHESDA, MARYLAND, USA

BACKGROUND: Multisystem inflammatory syndrome in children (MIS-C) or Paediatric Inflammatory Multisystem Syndrome-temporally associated with SARS-CoV-2 (PIMS-TS) establishes a severe and unrestrained inflammatory response with multiorgan involvement, which occurs following weeks of acute SARS-CoV-2 infection. The complement system is a vital part of the innate immune system and plays a role in COVID-19 pathogenesis.

METHODS: We examined the levels of complement components and regulators along with complement activation products in the plasma of three groups of children with 44 MIS-C, 33 acute COVID-19, 47 convalescent COVID-19 and 21 control children.

RESULTS: We found that children with MIS-C and COVID-19 had higher levels of C1q, C2, C3, C5 (complement components), C4b, C5b,

iC3b (activation products) and factors B, D and H (complement regulators) in comparison to convalescent and control groups of children. We found that each of these parameters were even more elevated in MIS-C children who were admitted to pediatric intensive care unit (PICU) as compared to those with MIS-C who only received non-PICU care. Lymphocytes, CRP and sodium levels correlated well with complement components, activation products and complement regulators. Overall, MIS-C and acute COVID-19 were associated with hyperactivation of complement components and complement regulators.

CONCLUSIONS: Our study shows that complement system plays a vital role in children with MIS-C and COVID -19 and may be further explored as a potential treatment option.

KEYWORDS: MIS-C, PIMS-TS, COVID 19, SARS-CoV-2, Complement

A Hospital Facility Based - Cross Sectional Study on Distribution and Magnitude of Childhood Illness Identified in Rashtriya Bal Swasthya Karyakram (Rbsk) Program By 4D' S Approach In A District of Southern India.

Dr. Vinoth Thanikachalam, Dr. Abinav Sivakumar and Dr. Vigneshwamy

CHETTINAD HOSPITAL & RESEARCH INSTITUTE, CHENNAI,

BACKGROUND: Rashtriya Bal Swasthya Karyakram is a new initiative aimed at screening over 27 crore children from 0-18 years under National Rural Health Mission initiated by the Ministry of Health & Family Welfare. The aim of the study is to estimate the distribution and magnitude of childhood illness identified in RBSK program by 4D's approach in a district of Southern India and to assess the utilization of program by the population

METHODOLOGY: This is an observational study conducted among the age group of 0-18 years in a randomly selected block of Chengalpattu district. 13,236 children were screened by medical officer as per RBSK guidelines. A pretested semi-structured questionnaire was used, and outcomes were tabulated. Details were entered in Microsoft excel sheet and collected data analyzed using SPSS, v21.

RESULTS: Among the 13,236 children screened, the overall magnitude of childhood illnesses was found to be 1981 (14.6%) children. Defect at birth has been among 19 (0.9%) children, deficiencies were seen in 584 (29.5%) children, diseases were present in 1159 (58.5%) children and developmental delays with disability were seen among 146 (7.4%) children.

CONCLUSION: The study concludes that RBSK has effectively screened and referred the patients to higher centers precisely. The study recommends having a nutritionist and a behavioral therapist posted in Primary health centre/community health centre on a rotational basis in order to overcome the congregation in higher centres.

KEY-WORDS: RBSK, Childhood illness, Defects at Birth, Childhood illness Developmental delays

Multimodal Technology-Driven Dynamic Comprehensive Continuous Monitoring of Risk Factors for Reducing Maternal Mortality In High- Risk Pregnancies in Tirunelveli District - an Operational Research

Vishnu M, K. Shantaraman, G Krishnaleela, M Aazmi, A Charles Pon Ruban, K. Sunitha, VP Amudha, P. Manickam, Vignesh Annamalai

TIRUNELVELI MEDICAL COLLEGE, TAMIL NADU, NATIONAL INSTITUTE OF EPIDEMIOLOGY, INDIAN COUNCIL OF MEDICAL RESEARCH, TAMIL NADU

BACKGROUND: Maternal mortality ratio of Tirunelveli is consistently high compared to other districts of Tamil Nadu. Thai care Nellai is a risk management framework to prevent avoidable maternal death and complications, by seamless integration of community, public health institutions, tertiary care specialists and district administration. Objective of the Thai Care Nellai initiative is to reduce maternal mortality by 50% from the current level in Tirunelveli district.

METHODS: This operational research project was implemented in Tirunelveli district from April 2022 and interim analysis was done at the end of August 2022. All pregnant mothers and post-natal mothers in puerperal period who had registered their pregnancy in Tirunelveli district during the study period were included. Realtime dashboard with data analytics was used. Frequencies and proportions were calculated as appropriate.

STRATEGIES USED ARE : Digitalization of complete life cycle of maternal health care activities Effective Risk categorization and early identification of High-Risk Mothers Creating a transparent accountable system for Data

collection, data integrity and real-time decision making. Leveraging the expertise of Tertiary care (District Hospital) for early maternal intervention Dedicated control room for counselling and tracking of High-risk mothers. Stakeholder Linkage and Feedback

OUTCOME: Maternal mortality ratio in Tirunelveli district during the study period of April - August 2022.

RESULTS: Only three (3) Maternal deaths were recorded during the study period versus fifteen 15 in the previous year (April -August 2021). Maternal mortality ratio during the study period (April - August 2022) was 35.6 per 100000 livebirths as compared to 186 per 100000 livebirths of previous years (April -August 2021 & 2020).

CONCLUSION: Thai Care Nellai initiative has reduced the maternal mortality ratio of Tirunelveli district significantly during the implementation period. This model can be translated into health system to reduce the maternal mortality.

KEYWORDS: Maternal mortality, Thai care Nellai,

A Population Based Newborn Screening In Thoothukudi District, 2019, Tamil Nadu, India: A Pilot Study

Dr. M. Geetharani, Mr. Sandeep Nanduri, Dr. Sekar, Dr. Selvanayagam, Dr. Bosco Raja, Dr. Arunachalam, Mrs. JessyMary, Dr. kanniammal, Dr. Valar athi, Dr. Vimonish, Dr. Durai, Dr. Saravanan, Mrs. Vinta

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Globally, 4 million children are born with some congenital problem of which at least 25-30% babies are expected to have inborn error of metabolism. In India (6, 20,000) are children born with genetic disorders. There is no mandatory newborn screening at National levels and so, no consolidated data is available for Tamil Nadu and Thoothukudi district. In this context, the aim of the study is to estimate the proportion of inborn errors of metabolism of newborns by initiating expanded newborn screening as pilot study.

METHODS AND MATERIALS: This population based cross sectional study was carried out between April 2019 – August 2019 in Thoothukudi District. After obtaining ethical committee approval and consent from mother who delivered from the selected (15) private and (5) government maternity centers. By using purposive sampling method, Sample size was calculated to be 1300, and data was collected till the decided sample size was met. We used Tandem Mass Spectrometry method to identify (62) conditions from DNADVENT Lifesciences Private laboratory, Hyderabad.

RESULTS: We collected 1428 samples, but 1343 samples were fit for analysis. Among them (10/15)66% were female and 86% were delivered in private maternity centers. Among them (3/15)20% of newborn were born to parents with consanguineous marriage. Nearly (2/15)13% of the newborns were less than 2.5kgs. Around (4/15)26% was admitted in NICU. Among the sample population, 1.2 % (15) turned out to have positive newborn screening, like congenital hypothyroidism, cystic fibrosis etc.

CONCLUSION: The low estimate of inborn errors of metabolism could be likely due to imprecise and biased estimates. If it is coupled with increased awareness, access to and uptake of carrier screening, genetic counseling, cascade testing, prenatal diagnosis, and advanced reproductive technologies which provide to maximize the impact of new transformative therapies for babies, families, and society. Follow up will be done for up to 2 years if newborn screening turned positive.

KEYWORDS: TANDEM MASS SPECTROMETRY, Neonatal screening, inborn error of metabolism, pilot study, Tamil Nadu

Understanding The Challenges Faced and Measures to Overcome Them to Reduce Excess Screen Time In Children Under 5 Years – A Focus Group Discussion

Samya Varadarajan, Akila G V and Muthukumar R
SRIHER, INDIA

BACKGROUND: Excess screen-time among children is highly prevalent and can lead to developmental problems and sleep issues. It is important to understand the caregivers' perspectives to reduce screen-time.

OBJECTIVES: To understand challenges faced by the caregivers in reducing the excess screen time. To understand measures that can be taken by caregivers to reduce the excess screen time.

METHODOLOGY: 6 FGDs (3 rural and 3 urban) were conducted with 8 participants in each FGD among mothers/ caregivers of under 5 children with excess screen-time. Each comment, quote and observation were coded and then grouped to generate themes.

RESULTS: Working parents, a lot of household chores, grandparents pampering, fear of sending children out to play, adamant kids, eating food only with mobiles were the various issues for allowing kids to screens. Strict parenting control, spending more time and playing with children, reading books, scaring the children about screen use, setting time limits are the ways to reduce screen- time.

CONCLUSION: In order to reduce children's screen-time, a lot of joint effort is needed from the entire family. Sustained the reduced screen-time is also difficult due the current covid pandemic situation which demands extra effort from the parents.

KEY WORDS: excess screen-time, focus group discussion, challenges, methods to reduce screen-time

Correlation Between Women Empowerment and Contraceptive Use In India – An Ecological Analysis Using National Family Health Survey 5 Data

Dr. Ramalakshmi R, Dr. Sudharshini S

MADRAS MEDICAL COLLEGE, CHENNAI

BACKGROUND: Contraceptive use is concerned with stabilizing the country's population, which in-turn spurs the economic and social progress. But it is the couple's decision to adopt a technique whether for spacing or permanent sterilization. In case of any unwanted pregnancy or termination of pregnancy or an increased family size, it is the woman who suffers physically and psychologically. A woman's decision-making capacity depends on how much she is empowered. This study aims to analyze the correlation between women empowerment and contraceptive usage.

METHODS: We used the aggregated data based on NFHS 5 state level fact sheets. Contraceptive methods were taken as dependent variables and women empowerment status indicators were taken as independent variables. Dimension index was calculated for each of the women empowerment status indicators such as women who make three household decisions, women who worked for the past 1 year and paid in cash, women who own a land or house

and women who own a mobile and for each contraceptive method. Composite score was calculated, and correlation was found using Spearman's rank correlation coefficient.

RESULTS: It is found that the use of Intra Uterine Contraceptive Device gets influenced by women empowerment status. The state level indicators show that the Spearman's correlation of IUCD usage is moderately positive with the women empowerment status (p value = 0.321). The highest IUCD usage is seen in Nagaland (19.8%) whereas the lowest usage is seen in Andhra Pradesh (0.2%). But the other methods of contraception are not significantly associated with women empowerment status.

CONCLUSION: Women empowerment potentially plays a role in decision making in IUCD usage whereas it doesn't play a role in other methods of contraception which has to be studied in detail further.

KEY WORDS: Contraception, IUCD, Women empowerment

Correlation Between Maternal Care Utilisation Indicators and Maternal Mortality Ratio In Indian States - An Ecological Analysis Using NFHS-5

Dr. Jongshina Jamir Dr Sudharshini S
MADRAS MEDICAL COLLEGE, CHENNAI

BACKGROUND: Maternal Mortality is a key health indicator of a country and direct causes of maternal mortality are largely preventable and treatable. According to the latest report of National Sample Registration System (SRS), India's Maternal Mortality ratio for 2017-2019 is 103. Among the states Kerala has the lowest with 30. This study aims to explore the correlation between the indicators of maternal and delivery care with maternal mortality ratio using a demographic health survey.

METHODS: Aggregated data based on National Family Health Survey 5 state level fact sheet and Sample Registration System, Maternal Mortality was used for this study. Maternal Mortality Ratio was considered as the dependent variable and the maternal and delivery care indicators were taken as the independent variables. Dimension incidences based composite scores were calculated for this purpose. Spearman's rank correlation coefficient was used to find the association between the indicators with Maternal Mortality Ratio.

RESULTS: Out of a total of 16 maternal and delivery care indicators, it was found that the Spearman's rank correlation coefficient of i) last birth protected against neonatal tetanus, ii) Registered pregnancies for which the mother received a Mother and Child Protection (MCP) card, iii) Institutional births in public facility, iv) Home births that were conducted by skilled health personnel and v) Births in a private health facility that were delivered by caesarean section had a positive correlation with the Maternal Mortality Ratio. Out of which Institutional births in Public Facility had a highly significant positive correlation (.717) with MMR. Births by Caesarean Section (-.675) had the most negative correlation with MMR, out of the remaining indicators which all had a negative correlation.

CONCLUSION: Institutional births in public facility with MMR shows that there is still room for improvement in the current services available and also to improve the efficiency of the health care providers.

Teenage Pregnancy Reduction Strategies- Erode District

Dr. P Dhanalakshmi, Dr. S Somasundaram,

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: In erode district from April 21-March 2022 631, April 22-August 22 239 teenage pregnant mothers were reported. In State level Erode district was standing high as top 1st position. Highest number reported in Sathyamangalam, Erode corporation, Anthiyur, Modakurichi & Gobichettipalayam blocks. Highest teenage pregnancy reported in the age group of 18 years (60%), 17 years (25%). 92% mothers were belonging to BPL family. 46% were married within the community. 20% are SC&ST community, 79% belongs to other Community. 26% mothers were married to consanguineous family. 91% in 2021-2022, 77% in April 2022- July 2022 mothers confirmed their pregnancy in govt institutions.

METHODS: Analytic studies: Block & village wise Geographic mapping, Heat mapping-POCSO/CM/TP. Periodic District level meetings with DSWO, DCPO, CWC, child line, Health, education, police & ICDS under leadership by District collector. Periodic District level meetings with BMOs, MOs, CHNs & SHNs under guidance by DDHS & MCH Nodal officer. Scheduled CM&TP awareness program among

public representatives, mahalir thittam, AWWs, school and College students under order by District collector in all 14 rural Blocks & corporation. School dropout children tracking and mobilization to schools. Teenage pregnancy mothers AN care and follow up in primary level and govt hospital level in coordination with MCH Nodal officer. Increasing POCSO/MLC/AR entry filing Under strict instructions by District collector.

RESULTS: Following many interventions teenage pregnancy for the month of September & October has becoming less (sep 2022: 45, October 2022: 30). MLC & AR entry, POCSO filling cases has been increasing compared to previous year. Infant death of teenage mothers has been decreasing. (Previously it was high d. to LBW/Preterm babies) By co ordinating activities we mobilized more than 500 drop out children to schools.

CONCLUSION: Teenage pregnancy morbidity and mortality can be reducible if appropriate analysis and interventions done by District Administration and line departments concerned.

Covid 19 Pandemic and Teenage Pregnancy In Dharmapuri District-A Retrospective Study

Kulabiraja S, Indra M, Soundammal S

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Teenage pregnancy/ Adolescent pregnancy is a major social and public health problem. Dharmapuri District of Tamil Nadu had a higher rate of women reporting pregnancy before the age of 18 years compared to other districts as per NFHS-5. This study is done to understand the time trend over the period between covid-19 pandemic and teenage pregnancies registered in Dharmapuri District during the period April 2020 to September 2022.

METHODS: A retrospective study on the teenage pregnancies registered in PICME and Covid-19 cases during the period April 2020 to September 2022 was done.

RESULTS: A total of 2264 teenage pregnancies was reported during the study

period contributing to 3.36 % of total pregnancies. Most of the pregnancy was among late adolescents (88.8 %). Almost 23.5% of the teen pregnancies were gravida two and above. Teenage pregnancies percentage were 2.3%, 4%, 4.2% during the FY20-21, FY21-22, April 22 to September 22 respectively which is on increasing trend. Teenage pregnancy peaks after each peak of Covid-19 pandemic.

CONCLUSION: The prevalence of teenage pregnancies is relatively low compared to the national average. Teenage marriage during the period of Covid-19 lockdown is a significant contributor of teenage pregnancy.

KEY WORDS: Covid-19 pandemic, Dharmapuri District, Teenage pregnancy.

A Cross Sectional Study To Assess Feeding Practices Among Under Five Mothers In Rural Area of Costal Area of Nagercoil, Tamilnadu

Dr. Anbu, Dr. Damodran

MADRAS MEDICAL COLLEGE, CHENNAI

INTRODUCTION: Proper feeding practices during infancy and childhood might permanently shape individuals' life course. Globally over 5.6 million children under five years of age died in the year 2016. Among which under nutrition being a major (45%) health problem. Which is associated with 3.1 million child deaths annually. The burden of malnutrition in India being high. Feeding practices which comprises of exclusive breastfeeding and complementary feeding can be a benefaction to child. Substantially breast milk is more than just food. It is also potent medicine that is tailored to the needs of each child.

METHODS: This is a community based cross sectional study. This study conducted in the coastal village areas of Nagercoil, Tamil Nadu using convenience sampling method, Based NFH 5 data breast feeding children aged 6-23 months receiving adequate diet 12.8 %, Absolute precision 5%, Confidence interval 95%, Nonresponse rate 10%, The sample size is 190.

RESULTS: Among the 190 study participants, mean age of the study participants was 28 ± 4.01 , Educational status 59 (30.8%) up to high school, 56 (29.5%) Graduated, 36 (19.2%) up to higher secondary ,27 (14.1%) up to middle school, 12(6.4%) up to primary school. 165 (87%) saying during antenatal visits health worker or doctor talked about breastfeeding, 162 (86 %) was aware of the advantages of breast feeding.105 (55.1%) during antenatal visit breast examination was done.184 (97%) were hospital delivery,139 (73.1%) initiated within first hour. 90 (47.4%) doctors,71 (37.2%) ANM/Staff nurse-initiated breast feeding.120 (63.2%) says caesarean section was cause for beyond one hour in breast feeding.121 (64.1%) aware of early initiation of breast feeding.163 (83.1%) gave colostrum to the baby.142 (75%) were aware of breastmilk bank.

CONCLUSION: The awareness among the mothers were high field level exclusive practice regarding breast feeding practices needs to be improved.

KEY WORDS: Child health, Maternal health, Breast feeding

Effectiveness of Predominant Millet Based Medical Nutrition Therapy On The Glycemic Control Compared To The Standard Medical Nutrition Therapy Among Women With Gestational Diabetes Mellitus In A Tertiary Care Setting, Puducherry – An Explanatory Mixed Method Study

Dr. Mahadevan D, Dr. J. Venkatachalam,
 Dr. R. Jayalakshmy, Dr. Sasirekha R, Mrs. Madhavi
 JIPMER, INDIA

BACKGROUND: Hyperglycemia is one of the most prevalent medical conditions in pregnancy. Gestational Diabetes Mellitus (GDM) accounts for 90% of cases. Glycemic control depends on various factors, diet is a key factor with physical activity contributing as medical nutrition therapy (MNT). Previous studies shown effect of millets on glycemic control among diabetes mellitus in adult population and literature suggests scientific pathway of millet action on glycemic control among women and also millets are easily available, traditional food. Hence, we aim to reinforce predominant millet-based MNT and assess its effectiveness in achieving glycemic control among pregnant women with GDM compared to standard MNT.

METHODS: This is a parallel arm, open-labelled, randomized controlled trial to be performed on 224 pregnant women with gestational diabetes mellitus attending antenatal OPD in JIPMER. It involves block randomization stratified on MNT only and MNT with pharmacological treatment into two arms, intervention and control arm. Both the arms receive health education booklet, diet & physical activity dairy. The control arm receives standard care of individualized diet counselling

for GDM. The intervention arm receives in addition, take home ration of 200 g of 4 varieties of millets for 1 month and individualized diet counselling. Primary outcome measures will be glycemic control measured through fasting blood glucose and 2-hour postprandial will be taken at the start of intervention, 2 weeks and 4 weeks after intervention (endline).

RESULTS: The study is ongoing currently. 52 women recruited, with 41 (78.8% completed 2-week follow-up and 16 (30.7%) completed 1 month follow-up. Glycemic control by fasting blood sugar levels of control group has shown a difference of 3.9 from baseline to 2nd week (88.46% to 92.31%) whereas the intervention group has shown difference of 13.7 (78.57% to 92.31%).

CONCLUSION: The results show a greater increase in glycemic control in the intervention group than the control group at 2 weeks. Further level of glycemic control maintenance will be seen at the end of 1 month of recruitment.

KEYWORDS: Gestational Diabetes Mellitus, Medical nutrition Therapy, Millets, Glycemic control

A Study to Correlate Maternal Factors and Birth of Low-Birth-Weight Babies in The Nilgiris District

Dr. P. Balusamy, P Sathya

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Low birth weight (LBW) continues to remain a major public health problem worldwide. There are numerous factors contributing to LBW both maternal and foetal. The maternal risk factors are biologically and socially interrelated¹. Low birth weight is a public health issue for the Nilgiris district with the prevalence of 23% and this is much greater than the state prevalence of 11.67% but almost similar to country prevalence of 22.1%. This study was conducted to study the maternal risk factors associated with low birth weight as The Nilgiris District being distinct on grounds of altitude, topography and ethnicity from other districts of Tamil Nadu.

METHODS: Retrospective data collection was done using RCH registers maintained by village health nurses and AN record of mothers who delivered babies of birth weight >2.5 Kg. After applying exclusion criteria and checking for completeness of records, total of 512 low birth weight babies were selected. Semi structured

questionnaire was constructed to collect Socio demographic data, Antenatal history including Maternal weigh gain, Hb level, High risk factors, AN registration, AN care etc. and Delivery details. Data was entered in Microsoft excel and analyzed using SPSS version 21.0. Mean, SD and Correlation coefficient was calculated and established at $P < 0.05$ level.

RESULTS: Out of 3365 deliveries in the district from April to September 2022, 512 low birth weight babies were studied for the maternal factors. Mean age of mothers in the case group was 25.4 ± 3.7 years. 79.56% of babies had birth weight of 2-2.49 Kg and 20.43% had <2 kg.

CONCLUSIONS: Maternal factors like Socio-economic status, weight, hemoglobin, parity and presence of high-risk factors were significantly associated with LBW.

KEYWORDS: Maternal factors, Low birth weight, Antenatal mothers

Assessment of Glycemic Status of Women With History of Gdm Between 2014 – 2020 In Madurai District – March 2022

Shankarprasath Shanmuganathan

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: GDM occurs when a woman's pancreatic function is insufficient to overcome the diabetogenic environment of pregnancy and causes high blood glucose levels due to extra demand for insulin. Women with a history of GDM are at high risk for future diabetes, with 17–63% developing DM within 5–16 years of delivery. In India only 50% pregnant women with GDM were tested postpartum for blood sugar and there is no consensus among physicians as to when a woman should undergo blood glucose test after delivery. So, it is important to assess the present glycemic status of GDM mothers.

METHODS: List of pregnant women diagnosed as GDM and registered in PICME portal between 2014-20 was downloaded and those who are available and consented for the study were included. Using the WHV's glucometer, fasting and postprandial glucose values of study participants were assessed as per the NPCDCS guidelines for screening for Diabetes. Interview with Semi structured

questionnaire conducted to assess the factors influencing the present glycemic status.

RESULTS: Out of 55 women identified from PICME portal 49 women were participated. Among those 49 women with history of GDM, 67% have blood sugar level in diabetic range and 22% in prediabetic range. Out of 22 Women with history of GDM who declared themselves as diabetic at present, only 3 are in control and 14 are not under control. 65% women with history of GDM had their weight more than 70 KG at the time of diagnosis.

CONCLUSION: GDM mothers are more likely to convert into Type 2 DM and they are unaware of that. Proper follow up of GDM mothers with LSM and periodic blood sugar checkup can be done. The control rate of those who know that they are diabetic is very less. So proper treatment and follow up may avoid diabetic complications

KEY WORDS: GDM, post-partum checkup, uncontrolled, high prevalence

A Study On Prevalence of Food Taboos Among Postnatal Mothers In Tertiary Care Centre, Chennai

**Dr. Varshene M, Anjana R, Manigandan S, Ramesh V,
Dr. Evangeline Mary, Dr. Seenivasan P**
STANLEY MEDICAL COLLEGE, CHENNAI.

BACKGROUND: Pregnant women are concerned about the child's health, which is to be born and are strict about their dietary practices. Some change their usual diet practices in such a way, positively, as to increase nutritional intake, while some avoid certain foods, which they used to have normally, in fear of fetal malformations, without any scientific basis, which are termed as Food taboo. The purpose of this study is to find out the prevalence of a wide variety of food taboos and the reasons for its avoidance among the postnatal mothers attending a tertiary care centre in Chennai.

METHODOLOGY: This cross-sectional study was carried out among 170 randomly selected postnatal mothers who delivered at Govt RSRM hospital, Chennai, during a period of three months, by face-to-face interview using a pretested, structured questionnaire containing questions on sociodemographic details, various food taboos and reasons for its avoidance. Data was entered into Excel and statistical analysis

was done using SPSS v.16. P value <0.05 was considered statistically significant.

RESULTS: Out of 170 postnatal mothers, 133 (78.2%) followed food taboos during their antenatal period. The most common food taboo followed was intake of papaya causing contractions (69.2%) followed by intake of black sesame seeds producing a black baby (55.2%). The prevalence of food taboo was significantly high in primi gravida (77.4%) ($p=0.00$)

CONCLUSION: The misconceptions related to pregnancy food taboos should be discouraged as they may restrict women's consumption of nutritious foods which could support maternal health and healthy fetal development. Health providers should counsel pregnant women and their families about appropriate pregnancy nutrition during ANC visits.

KEYWORDS: Food taboos, postnatal, nutrition.



NON-COMMUNICABLE DISEASE

Assessment of Sleep Quality Among Diabetes Mellitus Patients Attending Diabetology OPd at A Tertiary Medical Care Hospital in Chennai

Dr. M.Anbu Selvam, J. Arvinda Prasath, S. Ashwath, R. Ashwath, C.K. Athithie Sree, E. Avani, Dr. T. Susila, Prof. Dr. P. Seenivasan
 GOVERNMENT STANLEY MEDICAL COLLEGE AND HOSPITAL, CHENNAI

BACKGROUND: Sleep is one of the most significant human behaviors occupying roughly one-third of human life. It is necessary for survival because prolonged sleep deprivation leads to severe physical and cognitive impairment and finally death. People with diabetes mellitus are at greater risk of developing sleep disturbance symptoms than the general population, which may be associated with the diabetes itself or the complications that develop as the disease progresses. The prevalence of sleep disturbances among diabetic people ranges from 38 to 97%, which imposes a higher caregiver burden and impairing quality of life for patients and their bedpartners.

OBJECTIVES:

To assess sleep quality of adult Diabetic patients.
 To assess the factors associated with poor sleep quality among Diabetic patients.

MATERIALS & METHODS: A cross sectional study conducted in diabetology OPD of Stanley medical college, Chennai among diabetic patients above 30 years of age, through Consecutive sampling till the required sample size of 190 was obtained and study tools were

Pittsburgh Sleep Quality Index (PSQI) and risk factor questionnaire. Data was collected using pre-tested structured questionnaire through face-to-face interview. Data was entered into Excel and statistical analysis was done using SPSS v.16.

RESULTS: Our study showed that Mean age was 55.62 ± 10.49 years, Most of them were Females 110(57.9%) and completed secondary schooling 84(44.2%). Majority of participants belong to semiskilled Occupation 63(33.2%). Prevalence of Sleep deprivation among diabetic patient was found to be 106(55.8%). A multiple logistic regression analysis showed that the single most important risk factor impacting sleep was not sleep within 30mins, the others being sex, screen time ,other complication in diabetic patient.

CONCLUSION: The results of this study have clearly established that sleep deprivation is a critical health issue among diabetic patients. In this study, other than one non modifiable risk factors namely sex, all other risk factors are modifiable and are those of our daily routine. Hence any intervention in this area will lead to a large impact.

Recent Epidemiological Trends Influencing Type 2 Diabetes Mellitus - A Community Based Cross-Sectional Study at South India

Dr. Alber.M.Mathiarasu, Dr. Majella Livingston Alber

DUBAI HEALTH AUTHORITY, DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Diabetes mellitus, chronic hyperglycemic metabolic disorders affected 77 million Indians and projected 134 million by 2045. This study will determine the Recent Epidemiological factors influencing type 2 Diabetes Mellitus and it is cost-effective to reduce the DM burden in India.

MATERIAL AND METHODS : A Community Based Cross-Sectional Study design which involves all individuals between 20 years to 79 years of the age of both sex and permanent residence of Kanyakumari District satisfying inclusion criteria. A multistage stratified, clustered sampling technique. has been adopted. WHO STEPS wise approach to chronic disease risk factor surveillance-Instrument v2.1. Data collected from 01/01/2021 to 30/06/2021 was done. Sample Size (n) = Z2(p) (q) /d2 and 650 in urban with P- 14% and 1150 in rural with P-8% and total 1800 samples . Percentage, Mean, Chi-square test. linear regression analysis by SPSS version 28.0 done

RESULTS: With the Constant value of -0.115 , standard error 0.082 . the following Epidemiological factors like Physical inactivity, Overweight & obesity. Employment status, Family history of Diabetes , Housing type, Tobacco usage, Alcohol intake, Hypertension , Dyslipidemia ,Male sex , Urban residents shown statistically significant association with type 2 DM at 0.05 level .

CONCLUSIONS: This concludes sudden surge in type 2 DM patients among both Urban and rural Indian population is due to Physical inactivity , Overweight & obesity, Hypertension , Dyslipidemia and needs early intervention among these epidemiological factors to control the progression in Type2DM.

KEY WORDS: Community based Cross Sectional Study, Type 2 Diabetes Mellitus, Epidemiological factors, Rural and Urban Indian population.

Adherence to Treatment and its Associations Among Hypertensive Adults of Rural Varanasi

Immanuel Joshua.E, Sangeeta Kansal, Alok kumar
 BANARAS HINDU UNIVERSITY, VARANASI

BACKGROUND: Hypertension is the major risk factor for cardiovascular morbidity and mortality. Hypertension is inadequately controlled in most of the patients mainly due to poor adherence to treatment. Adherence is a behaviour-related dynamic phenomenon, and its degree varies over time, place and population, and not much is known about the underlying reasons for poor treatment adherence.

METHODS: A cross-sectional study was done in the rural population of Varanasi. The study adopted 2 stage cluster sampling technique. Hypertensives who are currently on pharmacological treatment for ≥ 1 year and belonged to ≥ 30 years age group were included in the study. Adherence was assessed using Medication Compliance Questionnaire.

RESULTS: A total of 400 respondents were considered in analysis sample. Most of the respondents were females (63.2%) and belonged to age category of 60-69 years (32.8%). of the total respondents, only 41% were adherent to

anti-hypertensive medications, out of which only 64.1% had adequately controlled blood pressure. Factors significantly associated with adherence to treatment includes age- group [$\chi^2(4)=13.24$; $p=0.01$], place of treatment [$\chi^2(1)=6.615$; $p=0.01$], possession of prescription [$\chi^2(1)=25.6$; $p<0.01$], presence of co-morbidities/complications [$\chi^2(1)=5.2$; $p=0.022$], knowledge on complications [$\chi^2(1)=23.083$; $p<0.01$] and perception on curability of hypertension [$\chi^2(1)=10.6$; $p=0.001$].

CONCLUSION: This study reported a significant proportion (59%) of patients with NCDs having non- adherence to hypertensive medications. Appropriate health education and motivation to empower patients (with special regard to young population) regarding the importance of treatment adherence for NCD control and prevention of complications should be imparted at every point of care.

KEYWORDS: Hypertension, adherence, non-adherence, compliance.

A Study to Assess The Association Between Metacognition and Obesity Among Adult Females of Age Above 30 Years Attending A Tertiary Care Centre In Chennai

R. Rajasudha, Dr. Z.H. Fathima Shifana, Dr. R. Tamilarasi and Dr. P. Seenivasan
 GOVERNMENT STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: The action of monitoring and managing one's mind and using this process to learn and recall is known as metacognition, which is a subtype of cognition. Dementia and cognitive impairment are linked to poor metacognition. Obesity is a major risk factor for chronic diseases and is frequently associated with decreased cognitive function over the course of the lifespan. Obesity and dementia are more common in women than men. The objective of the present study is to assess the association between metacognition and obesity in women.

METHODS: A comparative cross sectional study using convenient sampling method with a sample size of 104 including 52 non-obese and 52 obese participants was generated among females attending Makkalai Thedi Marutuvam in Government Stanley hospital during the period between July 2022- September 2022. After obtaining informed consent, details were collected by face-to face interview using MMQ questionnaire designed for the study and data

was entered in MS Excel and analyzed using Epi Info.

RESULTS: Among 104 participants the mean (SD) of age and MMQ subscales(satisfaction, ability, strategy) for 52 non-obese participants is 47.65(\pm 11.25) yrs., 54.54(\pm 8.79), 53.81(\pm 10.3), 29.48(\pm 5.16) respectively and for 52 obese participants is 44.65(\pm 9.96)yrs, 44.37(\pm 6.24), 40.58(\pm 7.57), 43.75(\pm 11.05) respectively.

CONCLUSION: Obese females had poor metamemory scores. They reported more instances of worries and forgetfulness about memory and greater use of strategies to ameliorate memory difficulties than non-obese females. The study would help the obese females to identify any early stage of cognitive impairment and create an awareness to delay or prevent any further metacognitive dysfunction.

KEYWORDS: cognition, dementia, metamemory, obesity

Patient Satisfaction Level on Makkalai Thedi Maruthuvam

Dr. Santhosh Kandaiah P, Dr. Uma Maheswari R and Dr. Damodaran V
 MADRAS MEDICAL COLLEGE

BACKGROUND: India is in epidemiological transition experiencing a rapid rise in Non-Communicable Disease (NCDs) burden surpassing communicable diseases. More than 2/3rd. suffering from NCDs are in most productive life age group. There is a lag in the approach of people towards NCDs. Hon'ble TamilNadu CM government launched Makkalai Thedi Maruthuvam (MTM) scheme with vision to “enhanced quality of life for all”, where people are approached in their houses and screened. Patient satisfaction is an important indicator of healthcare quality. So, the main aim of our study was to find out the patient satisfaction level on MTM services.

METHODS: We conducted a community based cross-sectional study in rural field practice area of ICM, MMC. A sample size of 427 participants by multi-stage sampling method availing MTM services and residing more than 6 months in Medavakkam PHC area were included. Modified Patient satisfaction

questionnaire 18(PSQ18) under 7 domains was used. Data was collected by Epi-collect 5 software and analyzed using SPSS software.

RESULTS: Preliminary results for 187 participants - 116 were females, 52.9% had education up to primary school, 36.9% were unemployed, 62% were from lower middle class and below. 77% had good control rate. Patient Satisfaction Level were scored under 7 domains – of which all had good score above 3.7/5, Interpersonal manner had excellent results – 4.18. Convenience and monthly accessibility – 3.7 can be improved.

CONCLUSION: With preliminary results – health care providers of MTM were appropriate for interpersonal manner and scope for improvement in field of monthly accessibility and convenience to MTM services.

KEYWORDS: Makkalai Thedi Maruthuvam, Non-Communicable Disease, Patient Satisfaction Level.

A Training on Self Breast Examination Among Women Attending Rural Health and Training Centre of A Medical College

Dr. Susithra. R, Dr. Pankaj, B. Shah
 SRMC& RI, SRIHER, CHENNAI

INTRODUCTION: Breast cancer is of global health concern and a leading cause of morbidity and mortality among women. Studies have shown that in most of the developing nations, breast cancer is diagnosed in advanced stages of the disease and thus has a poor outcome and high fatality rate. Therefore, Breast self-examination (BSE) has been identified as the only realistic approach in early detection of breast cancer in developing nations.

OBJECTIVES:

To encourage the participants to perform Self Breast Examination at their residence.

To follow up the participants after 15 days for assessment of their training and for queries.

METHODS: The study was conducted among 100 women of 35 years and above attending a rural health and training centre. They were given a basic training on self-breast examination.

Following which, they were followed up on the confidence of Self Breast Examination.

RESULTS: 84 % women tried self-breast examination at their residence after this training. 87 % of the women were competent enough to perform self-breast examination on their own. 42 % of women were confident to train self-breast examination to their mother/mother-in-law and daughters.

CONCLUSION: A high proportion of women tried self-breast examination at their residence, were competent enough to perform self-breast examination on their own and were confident to train self-breast examination to others. Hence, this training program on a long run will help in early detection of breast lump.

KEYWORDS: Self Breast Examination, Breast lump, Breast cancer.

Psychosocial Problems of Breast Self-Examination In The Women In The Field Practice Area of Model Rural Health Research Unit (Mrhru) Tirunelveli, India

Dr. Pabithadevi, Dr. K. Shantaraman
(MRHRU) TIRUNELVELI

INTRODUCTION: Globally, breast cancer affects 2.5 million people annually. Younger women with advanced-stage cancers had a lower survival rate, but early detection enhanced survival chances by 27 to 47 %. Breast Self- Examination (BSE) has led to early detection and higher rates of benign biopsies. Learning to do a breast self- examination can cause psychological distress such as depression, anxiety, and particularly cancer-specific intrusive thoughts that can lead to excessive and repetitive breast examinations. Most research evaluating breast self- examination and its psychological impact were from the United States, Canada or Europe, whereas Indian studies were rare. We conducted a community-level assessment of the psychosocial problems of breast self-examination among rural women.

METHODOLOGY: The Institutional Ethics Committee approved the community-based descriptive cross-sectional study in Model Rural Health Research Unit (MRHRU) field practice area, Tirunelveli, between 2019 to 2020. Focus Group Discussion (FGD) explored the psychological impact of BSE on women and aided in developing the research questionnaire. The questionnaire included: socio-demographic factors, family history of breast cancer, knowledge and practice of BSE and Hamilton anxiety and depression scales. Consenting women aged 30 years and older, regardless of marital status, who have done BSE at least once without present or prior breast abnormalities answered the study questionnaire.

RESULTS: Among 379 participants, 123 (32.4%) were between the ages of 30 and 40 years, while 146 (38.5%) felt confident in their BSE knowledge. 79.2% (n=300) of the participants obtained information from health care workers. 28.2% (n=107) and 5.5% (n=21) of the respondents experienced anxiety and depression while practising BSE, respectively. There is no association between age, number of children, and anxiety and depression scores. There is a significant difference between the mean anxiety levels (p-value = 0.002) and depression (p-value = 0.013) of individuals who have detected anomalies during BSE and those who have not.

DISCUSSION: Regular counselling has to improve knowledge about BSE, like the timing and method of examination. Confidence in practicing BSE will increase the likelihood of frequently practicing BSE. Fear of developing cancer and death, the emotional and financial burden of developing cancer, and the lack of proper knowledge may be the cause.

CONCLUSION: In our setting, breast self-examination remains the best screening technique for the early detection of breast cancer, as only 1.6% – 0.5% of women who practice Breast Self-Examination develop moderate to severe anxiety while doing BSE, which can be further reduced by counselling. More emphasis on BSE should be given during their clinical and Non-Communicable Diseases visits.

Preference of Tertiary Health Centre Over Primary Health Centre For Non-Communicable Diseases In Chennai - A Cross Sectional Study

Dr. Pravin Kumar P, Dr. Vijayalakshmi M
MADRAS MEDICAL COLLEGE

BACKGROUND: In India national level screening and treatment of non-communicable diseases (NCDs) for all the individuals above 18 years being done as population based (MTM) and facility based (PHCs). Increasing no.of patients prefer Tertiary Health Centre's (THCs) for initial screening, treatment & follow-up of NCDs. This has led to increase in the burden of tertiary care centres. Objective of the study is to identify the factors associated with the preference of Tertiary Centres over the Primary Health Centres (PHCs).

METHODS: We Conducted Cross-Sectional Study in Rajiv Gandhi Government General Hospital (RGGGH), Chennai. A sample size of 425 participants with NCDs Using Simple Random Sampling and the Patients Were Interviewed with the Interviewer administered semi structured pre validated Questionnaire. Data was collected and entered in Excel and analyzed using SPSS software.

RESULTS: Among the 425 participants 52% were male.52%, 11%, and 29.9% of the participants had Hypertension, Diabetes and both Hypertension & Diabetes respectively. Among the participants 70% has PHCs available nearby their residence. The most frequent reasons for visiting RGGGH were drug availability (30%), followed by quality of care & accessibility (24%), first diagnosed in RGGGH (20%)

CONCLUSION: In our study More than two third of the participants has not utilized the NCD services at PHC level. This is due to lack of awareness of service availability. Improving the effectiveness of health education and awareness of NCD services available at PHCs may help to increase the service utilization.

KEYWORDS: Non communicable Disease, Service Utilization, Health education.

A Cross-Sectional Study on Knowledge, Attitude, and Practice of Foot Care Among Type II Diabetes Patients In Urban Health Training Centre, Manikeshwari, Kalaburagi

Dr. Sangita. S, Dr. G. Ajay Kumar
GIMS, KALABURAGI

INTRODUCTION: India is diabetic capital of world with 2nd highest cases next to China. Diabetes mellitus has no cure but can be controlled which may lead to an increase in morbidity. Various complications can occur while diabetic foot is the most common complication encountered affecting nearly 15% of population globally.

OBJECTIVES: 1. To determine knowledge, attitude & practice of foot care among type II diabetes mellitus patients
2. To determine association between certain socio demographic factors with knowledge, attitude & practice of foot care.

METHODOLOGY:

STUDY POPULATION: Patients diagnosed with Type II diabetes mellitus

STUDY SETTING: Urban health training center, Manikeshwari, Kalaburagi

STUDY DESIGN: Community based cross sectional study

STUDY DURATION: October 1st – October 31st, 2022

SAMPLE SIZE CALCULATION: According to NFHS-5, mean prevalence of DM in Karnataka :14.8% Using $z^2 \cdot p \cdot q / d^2$, Sample size calculated is 194 & approximated to 200

SAMPLING METHOD: Cluster sampling method

INCLUSION CRITERIA: Type II diabetic patients who have given consent

EXCLUSION CRITERIA: Patients not given consent

DATA COLLECTION METHOD: Face-to-face interview using a questionnaire.

KAP scoring was done with 1 mark for correct response and 0 marks for incorrect response

STATISTICAL ANALYSIS: Data was entered in excel sheet and analysed using SPSS version 16. Percentage, Chi square and Fischer's exact test were used

RESULTS: 57% were given information about foot care by doctors. Despite having poor knowledge, they had good attitude and practice. Factors like age and education were significantly associated with attitude whereas not with knowledge and practice of foot care

CONCLUSION: Specific educational awareness program must be held at regular intervals to encourage foot care. As per World Diabetes Day 2022 theme... We will educate more to protect tomorrow

KEYWORDS: Diabetes mellitus, knowledge, attitude, practice

Usage of Tobacco and Oral Cancer Screening Among The Indian Population

Margret Beaula Alocious Sukumar, Alex Joseph
 SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

INTRODUCTION : Oral health is connected to your general health. It impacts the ability to speak, smile, taste and digest proper nutrition and it affects one's everyday quality of life. Most oral health conditions are preventable and can be treated in their early stages. India lacks data on national level adaptation of tobacco usage and its association with oral cancer. We intend to address the issue through a secondary data analysis of existing data and reports.

MATERIALS AND METHODS: Data were acquired from the National Family Health Survey-5 (2019- 2021). The responses were representing Indian population living in all of India, the following data from the age group of 15-39 years were mined for both the gender - any tobacco use and oral cavity screening for cancers.

STATISTICAL ANALYSIS USED: SPSS version 20; Descriptive statistics for values in proportions; Pearson's correlation test was

assessed between any tobacco use, willingness to quit tobacco, oral cancer screening.

RESULTS: Tobacco use in any form was highly prevalent among the Northeastern states, and there was also a lack of willingness to quit the habit. There was unequal distribution of dentists in different states. No significant statistical correlation was found between the proportions.

CONCLUSION: For the first time, NFHS-5 has included the details of women and men who have ever used tobacco use and have done screening for oral cancer. There is disparity existing in treating seeking behaviour of the general population as well as the need for dental treatment. The skewedness in dentists' distribution among the nation especially in rural setting as compared with oral burden of diseases needs to be correlated before oral health policies are planned.

KEY WORDS: Tobacco use, oral screening, India, NFHS- 5

Anthropometric Indexes and Its Association With Blood Pressure Among Patients Attending Mtm Clinic In Chengalpattu Medical College and Hospital - A Cross Sectional Study

Dr. S. Lavanya

CHENGALPATTU MEDICAL COLLEGE AND HOSPITAL

BACKGROUND: Raised blood pressure, overweight/obesity, hyperglycemia and hyperlipidemia are the four metabolic changes that increase the risk of NCD. The leading risk factor globally is elevated blood pressure. The objective is to assess the anthropometric indices among patients attending MTM clinic in Chengalpattu medical college and Hospital and to find the relationship between the anthropometric indexes (BMI, WHtR, WHR) with the blood pressure of the study participants.

METHODS: A hospital based cross sectional study was conducted among 124 participants in the age group more than 30 years who attended the MTM CLINIC during the period August 2022 to September 2022. Participants who gave consent were included in the study. Patients less than 30 years, Pregnant women, Patients with serious physical and mental illness with whom anthropometric measurements could not be done were excluded. Systematic random sampling was done to arrive the sample size. A semi structured questionnaire was administered to collect the data which consists of socio demographic details, comorbid conditions and anthropometric measurements

were taken among the study participants and appropriate data analysis were done.

RESULTS: Mean age of the study participants is 53 ± 10.17 years. In this study, about 44.35% are hypertensive and 55.65% are normotensive. Among the study participants about 30.1% females, 36.6% males are in pre obese and 2.4% females, 14.6% males are in obese category. About 90.4% females and 73.2% males having more than the cut off value (>0.5) of Waist Height ratio. 62.6% of the female and 24.4% of the male participants are having (female >0.85 , male >1) high waist hip ratio.

Significant association found between the waist hip ratio and the blood pressure in both males and females where p value is <0.05 ($\chi^2 = 3.954$)

CONCLUSION: This study concludes that among the three indicators BMI, WHR and WHtR, the waist hip ratio (WHR) is the strong indicator for the elevated blood pressure.

KEYWORDS: Anthropometric Indexes, Blood Pressure, MTM clinic, Chengalpattu.

Factors Contributing to Non-Compliance to Medication in Patients with Diabetes Attending A Tertiary Healthcare Centre in Chennai

Arthi Rajan, Aravindan S, Apoorva Sharma
 GOVT. STANLEY MEDICAL COLLEGE

BACKGROUND: In a limited resource-country like India, the preponderance of economic instability, low literacy level, and restricted access to healthcare facilities might cause medication non-adherence. One study showed that while diabetic and cardiac patients who take medication correctly have a 7% death rate; for those who are non-compliant the death rate is 12%. Treatment effectiveness decreases with non-adherence to prescribed medications thereby, increasing healthcare costs of diabetes.

METHODS:

Study Design : A Hospital based Cross-Sectional Study with descriptive and analytical components
Study Population: Diabetics

Study Area : Institute of Diabetology, Stanley Medical College

Study Period : 2 Months

Sample Size : 250

SAMPLING METHOD: The subjects were chosen using Systematic random sampling method where every third person attending the Diabetology OPD were selected for the study.

STUDY TOOLS : After obtaining written and informed consent from the subjects, information was collected using pretested, semi-structured questionnaire.

DATA COLLECTION : After getting permission from the Institutional Ethical Committee, information was collected from the study participants by One-to-One Interview method using Open/Closed ended questionnaires after obtaining written consent.

ANALYSIS : After collecting, the Data was compiled and entered in Microsoft Excel Sheet. Analysis was done using Statistical software SPSS version 16

RESULTS: 33.2% of the patients were non-compliant. 53.8% of the moderately compliant patients belonged to the Lower Middle socioeconomic class while 58.1% of the low compliance patients belonged to the Lower socioeconomic class ($p < 0.001$). 77.4% of the highly non-compliant patients didn't feel that their medications were making a positive difference ($p < 0.001$). 83.9% of non-compliant patients were worried about the long term side effects ($p < 0.001$).

CONCLUSION: Prevalence of non-compliance to medication in diabetic patients attending Stanley Hospital is significantly high. Factors like sex, socio-economic status, seeing a positive difference and fear of long-term side effects seem to influence non-compliance.

A Cross Sectional Study to Assess The Prevalence of Migraine and Tension Type Headache Among Adults of Age Group 20 to 50 Years in an Urban Slum, Chennai District, Tamil Nadu

S. Arvind Sundhar, E. Ananthkrishnan, S. Anand, S. Arunraj,
 R. Arun Prasath, Dr. M. Anbu Selvam,
 GOVERNMENT STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Headache is one of the common reasons patients seek medical attention and cause more disability than any other neurological problem. Migraine is ranked second in terms of Years lived with Disability and is attributed with poor sleep, while the prevalence of Tension type headache is greater globally. Many research have been done, but there aren't adequate studies among the urban slums in South India.

METHODS: By simple random sampling, adequate sample size of 320 was obtained from adults in the age group of 20-50 years in Sanjeevarayanpet, zone 4, ward no. 48 through home visits. Pre-structured questionnaire based on ICHD-3 Diagnostic Criteria for TTH& Migraine, ID Migraine, Migraine Screen Questionnaire (MS-Q), McMaster Pediatric Migraine Questionnaire, Seven-in-seven screen exposure questionnaire, Pittsburgh Sleep Quality Index (PSQI) was used. Data was collected using Epicollect software and analyzed using SPSS v.16.

RESULTS: Mean age of the study population was 30.5±4.5 years. Among 320 participants

interviewed, 78.44%(n=251) have got headaches other than Flu in the past 12 months whereas 21.56 % (n = 69) haven't. The Prevalence of TTH and migraine using standardized questionnaire were found to be 44.68%(n=143) and 13.125(n=42) respectively. 33.125% people (n = 106) have had repeated attacks of headache in the past 3 months. 27.18% (n = 87) have consulted doctor for Headaches overall. 33.86 % have rated their pain ≥5 on a scale of 0 to 10. On analysis, Self- reported stress has positive association with TTH (OR = 1.692, p value = 0.022). Migraine was found to cause mild to moderate Work disability in adults (OR = 13.838, p value <0.001).

CONCLUSION: The results of our study show that i) Stress is a modifiable risk factor for TTH, so encouraging appropriate lifestyle modifications can reduce its occurrence ii) Migraine is associated with work disability, hence early intervention and proper treatment can improve productivity and reduce its prevalence.

KEYWORDS: headache, work disability

Palliative Care Needs in a Rural Setup in Eastern India

Kavi Nila David Retina, Sonu Hungma Subba and Manish Taywade

SCUDDER MEMORIAL HOSPITAL, AIIMS BHUBANESWAR

BACKGROUND: The first step to implement comprehensive palliative care is to assess the need for palliative care in the community. Though institution-based studies are available, community-based studies are required for policymaking. Therefore, our study aimed to focus on the following 1) to find the number of persons requiring palliative care in the Bhubaneswar block of Khordha district 2) assess the unmet need of the identified patients.

METHODS: Data triangulation was done with the data from health workers of respective villages, cancer register data from District Headquarters Hospital, Khordha, and snowball sampling. The patients identified were interviewed on the data corresponding to socio-demographic details, disease details, and four domains of palliative care which was collected in epi-collect5.

RESULTS: A total of 225 patients were identified in the selected two sectors of Bhubaneswar block, Khordha district. Among the patients, 55.9% were of age group above 60 years and 8.0% were children and adolescents. The common diseases identified among the

patients were cerebrovascular disease, heart disease, frailty, cancer, chronic kidney disease, cerebral palsy, and congenital heart disease. The most common existing physical problems were immobility, pain, fatigue, breathlessness, and constipation. Concerns regarding future and financial issues were present in around two-thirds of the patients. Three in four patients had difficulty in doing day-to-day activities. Most patients attributed their source of strength to people, followed by faith in God. Socioeconomic factors like education, occupation, type of family, and income were found to affect the different domains of palliative care except for the spiritual domain.

CONCLUSION: In the studied population 3.7 persons per 1000 population needed palliative care. All four domains of care had unmet needs. This can be decreased by policy implementation and integration of palliative care at various levels. Addressing issues like transport, financial support can be of help to those requiring palliation.

KEYWORDS: Palliative care, prevalence, needs assessment.

Prevalence and Risk Factors of Hypertension Among Male Auto Rickshaw Drivers of Age Group 30 To 50 Years in North Chennai, Tamil Nadu

M. Navin Raja, Muhammad Roshan Akhthar E.S. K, Dr. Bamilan R, Dr. R. Yamuna Devi, Prof. Dr. P. Seenivasan

GOVERNMENT STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Hypertension is a leading cause of morbidity and mortality worldwide. The environment in which professional drivers spend the majority of their time is polluted, noisy and dangerous. Drivers are exposed to harmful environmental conditions like noise and whole-body vibration as well as harmful lifestyle practices like irregularity of meals, bad posture while driving, stressful occupational conditions and low income. Our study aimed to determine the prevalence of hypertension and risk factors among male auto rickshaw drivers of age group 30 to 50 years in North Chennai, Tamil Nadu.

METHODS: This was a community based cross sectional study conducted among a sample size of 270 auto rickshaw drivers in North Chennai in July – September 2022. Data was collected by a semi structured questionnaire by face-to-face interview method and analyzed using SPSS 16. Association between two factors is analysed using Chi-square test and p value of <0.05 is taken as significant.

RESULTS: The overall prevalence of hypertension among Auto-Rickshaw drivers

was found to be 46.3% (125 out of 270). Previously diagnosed cases were 13.3% (36 cases). The number of Hypertension cases were 78(62.4%) among age group of 41-50 years and 47 (37.6%) among age group 31-40 years. The number of people working for <6 hours were 7 (2.6%), 6-8 hours were 58 (21.5%), 8-10 hours were 105 (38.9%) , 10-12 hours were 57(21.1%), >12 hours were 43 (15.9%). Among the risk factors, the Waist-Hip ratio ($p=0.035$), Socioeconomic Class ($p=0.036$) and Alcohol consumption ($p=0.001$) have statistically significant association with Hypertension.

CONCLUSIONS: The prevalence of hypertension among Auto-Rickshaw drivers is high when compared to the overall prevalence of hypertension among people in Urban Tamil Nadu. Most of the risk factors associated are modifiable. Hence any intervention in the form of lifestyle modifications will result in preventing the development of hypertension.

KEYWORDS: Hypertension, Auto drivers, Chennai, Prevalence

Prevalence and Pattern of Multimorbidity Above 30 Years of Age Group In Southern Part of Chennai: A Cross Sectional Study

Divya I, Vijaylakshmi, Hari Krishnan

CHETTINAD HOSPITAL AND RESEARCH INSTITUTE, INDIA

BACKGROUND: Tamil Nadu is one among the three states in India undergoing epidemiological transition. Ageing, unhealthy diet, lack of physical activity, high blood pressure, high blood sugar, high cholesterol and overweight are the causes of chronic diseases. Specific multi-morbidity patterns are found to affect activities of daily living (ADL). Furthermore, it may result in financial burden, especially in low- and middle-income countries (LMICs). However, very limited data on prevalence of multi- morbidity are available from Tamil Nadu. This study had been planned to assess the prevalence and patterns of multimorbidity among the study population and determines the risk factors associated with multi morbidity.

METHODS: This is a cross sectional study, conducted among non-communicable disease patients above the age group of 30 years attending Chettinad Free Community Hospital outpatient department during the study period. The sample size estimated to be 405 and convenient sampling technique

is used. Qualitative variables are expressed in proportions and quantitative data in mean (SD). By considering 95% level of significance, Chi-square test was applied to determine the association between different variables.

RESULTS: The mean age of the study participant was 58.7 years and nearly 65% were females. Among the study participants, 31 % belong to upper socioeconomic class. The prevalence of multimorbidity was 46.4%. Diabetes and hypertension were the most frequently co-existing conditions. Age, Gender, and occupational status were associated with multimorbidity. Results are only preliminary.

CONCLUSION: Nearly 46.4 % are with multimorbidity. Diabetes and hypertension were the most frequently co-existing conditions. A better understanding of multi-morbidity patterns and risk factors is crucial for re-organization of health care services to provide integrated care for multiple chronic conditions.

KEYWORDS: Multimorbidity, Risk factors, prevalence, India

Ncd Risk Profile of The Sanitary Workers in Puducherry

Karthiga Vijayakumar, Roshin, Anandraj
 IGMCRI, PONDICHERY

BACKGROUND: Sanitation workers are more prone to develop cardiovascular risk factors because of the nature of their profession and polluted environment. Hence, across sectional study was conducted in IGMCRI, a tertiary medical institute and hospital in Puducherry, to determine the prevalence of selected cardiovascular risk factors among the sanitation workers such as behavioral, anthropometric, biochemical factors, stress

METHODS: Behavioral risk factors such as dietary habits, physical activity, tobacco and alcohol use was assessed using the STEPS questionnaire, physical and anthropometric risk factors were assessed using the BMI, waist circumference and Blood pressure to determine the prevalence of obesity, abdominal obesity and hypertension. Biochemical risk factors such as diabetes mellitus and dyslipidemia were assessed using the Fasting Blood glucose and lipid profile. Cohen's perceived stress scale was used to assess the stress

RESULTS: of the total 310 sanitation workers studied, the most common cardiovascular risk factor found was the unhealthy dietary habits in terms of fruits and vegetables intake as 97.8% of them were practicing it. Other behavioral

risk factors studied such as physical inactivity, tobacco and alcohol use showed a prevalence of 22.5%, 6.8% and 14.5% respectively. The prevalence of anthropometric risk factor like obesity and abdominal obesity was reported to be 51.4% and 35% respectively. The prevalence of hypertension among sanitation workers was 40.5%. Biochemical risk factors such as diabetes and dyslipidemia showed a prevalence of 6.1% and 83% respectively. Low HDL cholesterol (40.8%) was the most common lipid disorder among the study participants followed by hypertriglyceridemia (27%) and hypercholesterolemia (19%). The prevalence of high to very high stress among the sanitation workers was 80.5%. For hypertension gender, tobacco use, alcohol use were the significant predictors. Factors such as BMI status were significant predictors of dyslipidemia among the study participants

CONCLUSION: Screening and diagnosis of the cardiovascular disorders during periodic examination will help to provide better care to this high risk group.

KEYWORDS: NCD, Metabolic syndrome, sanitary worker

Prevalence and Determinants of Medication Adherence In Patients with Hypertension in Virudhunagar District – A Cross Sectional Study

Amutha D & Vignesh T M

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Hypertension is a serious medical condition that increases the risk of heart, brain, kidney and other diseases. Control of HTN is essential to reduce the incidence of major adverse cardiovascular events and associated deaths. Medication adherence plays a vital role in the control of Hypertension. Multiple factors affect adherence indirectly affecting the control and the complications of the disease. This study aims to estimate the prevalence and determinants of medication adherence in hypertensive patients.

METHODS:

Study population

Hypertensive patients in Virudhunagar

Inclusion criteria

Patients who are diagnosed with hypertension and undergoing treatment in health facility and giving consent to participate in the study

Exclusion criteria

Presence of any cognitive defect that interferes with responsiveness and unwillingness to participate in the study

Sample collection Using multi stage random

sampling, 5 blocks will be selected from the 11 blocks of virudhunagar and 2 phcs will be selected for each block using lottery method. From each PHC 15 hypertensive patients from OPD who meet the inclusion criteria will be chosen for study after getting consent. Data will be collected by trained staff nurse using MMAS-4.

Sample size = 150

Using the formula, $4pq/d$ the sample size required is calculated as 150 with p as 50% and d (precision) as 8.

RESULTS & CONCLUSION: Among the 150 participants studied 99 are female and 51 are male. The mean age of the population is 58.3years (56.6 to 60.1yrs). The prevalence of medication adherence is 54% (95% CI 46% to 62%). The factors Participants with beliefs such as drug is not effective, long term intake of drug will cause side effects and difficulty in taking multiple medications and participants who take indigenous medicine for other complaints are found to have medication non adherence.

KEYWORDS: medication adherence, hypertension, MMAS4

A Study to Assess The Self Care Behaviour and Treatment Adherence In Type Diabetes Mellitus Patients, In a Tertiary Care Centre, Chennai

Monisha J, Mirudhula Pa, Dr. Bamilan , Dr. Yamuna Devi Dr. P Seenivasan
 GOVERNMENT STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Diabetes is a rising global health problem that requires continuous self-care practice. A good self-care practice is important to achieve the desire treatment targets. Adherence is the extent to which a person's behaviour of taking medications, following a diet, executing lifestyle changes corresponds with agreed recommendations from a healthcare provider. Non adherence leads to adverse health outcomes. Therefore, this study aims to assess the self-care behaviour, adherence to treatment in patient diagnosed with type2 diabetes.

METHODS: A cross sectional study was conducted among 130 type2 diabetes patients who attended the OPD between July to September 2022 using a semi structured questionnaire containing information on sociodemographic characteristics, morbidity profile , alcohol abstinence, nonsmoking, diet modification, physical exercise, awareness and screening for complications. Data was collected by face-to-face interview and analyzed using SPSS 23, chi square test was used. P values less than 0.05 were considered statistically significant. Those who have score value more than 3 out of 5 were considered to have high

adherence to self-care practices and those who have score value less than for equal to 3 out of 5 self-care practices were considered to have poor adherence to self-care practices.

RESULTS: Among the study participants, 91.5% (119) had high adherence to self-care practices and 8.5%(11) had low adherence to self-care practices (Monitoring of blood sugar-97.7%, Modification of diet -96.2%, Physical exercise 82.3%, Non smoking93.8%, Alcohol abstinence94.6%). Univariate analysis shows socio demographic details, place to buy medicine, hypertension status were statistically significant to any one the self-care practices. Awareness of the complications (77% of study population)was statistically significant to routine monitoring of complications(Foot care, routine urine monitoring).

CONCLUSION: Overall adherence to medication and self-care practices were good in the study population (>91.5%). But awareness of complications still needs improvement to promote screening of complication. Health education to promote awareness among high-risk groups can be recommended.

KEYWORDS: Diabetes mellitus, Self-care practices, Awareness, Chennai

Neck Circumference As A Marker of Overweight and Obesity: A Comparison with Body Mass Index and Waist Circumference In Urban Bengaluru - A Cross-Sectional Study

Arunkumar V, Ranganath T S

BANGALORE MEDICAL COLLEGE & RESEARCH INSTITUTE

BACKGROUND: The global epidemic of overweight and obesity is taking a drastic health toll, resulting in various non-communicable diseases (NCDs). Neck circumference (NC) can be a timesaving screening tool for measuring overweight and obesity. The present study thereby aims to evaluate the validity of neck circumference as a simple measure of overweight and obesity.

METHODS: A community-based cross-sectional study was conducted in the urban field practice area of Bangalore Medical College & Research Institute, Bengaluru District, Karnataka, among 258 subjects (129 males & 129 females) with the age group of 18-40 years. A pre-tested, semi-structured questionnaire on socio-demographic variables and anthropometric measurements was obtained from the participants upon their consent.

RESULTS: The study showed a strong positive correlation (r) between waist circumference (0.7) and Body Mass Index (0.7) with neck circumference for both males and females. ROC curve analysis showed that the cut-off for males at 35.50 cm has a sensitivity of 89%, specificity of 73%, and area under the curve to be 0.88. Whereas the cut-off for females was found to be 33.50 cm with a sensitivity of 86%, specificity of 89%, and area under the curve to be 0.94.

CONCLUSION: Neck circumference can be used as a simple screening tool to detect overweight and obesity. As per our results, NC >35.50 cm for men and >33.50 cm for women requires additional evaluation to help curb the modifiable risks of obesity related NCDs.

KEYWORDS: Body Mass Index, Neck circumference, Obesity, Waist circumference

Level of Physical Activity Among Medical College Students In Chennai - A Cross Sectional Study

Dr. Vidhya. C Dr. Vijayalakshmi. M
 MADRAS MEDICAL COLLEGE, CHENNAI

INTRODUCTION: Non-communicable disease accounts for 41 million deaths each year globally. The four main risk factors associated with NCDs were tobacco use, harmful use of alcohol, unhealthy diet and lack of physical activity. Regular physical activity helps in maintaining healthy weight, promotes reduction of visceral fat and also preventive factor which prevents development of NCDs. This study aimed to study the level of physical activity among medical college students in Chennai.

METHODS: In this cross-sectional study, the level of physical activity was assessed using IPAQ-SF questionnaire among randomly selected 209 medical college students in Chennai using Google forms from July to September 2022. Statistical analysis (Chi-square/Fisher's exact test) was performed using SPSS version 21.

RESULTS: The mean age of the study participants was 26.2 years (SD-+/-4.068).

50.2%(n=105) were females. Majority of the participants were postgraduates with 67.9%(n=142). Only 34%(n=71) of the participants were of normal BMI and 57.9%(n=121) were postgraduates. Among the study participants 22.5% (n=47) were physically active. Males were more physically active (OR-39.2, 95%CI-9.19-167.80) and post-graduates were more physically active (OR-4.12, 95%CI-1.65-10.29). Days scholars were found to be physically active (OR-1.99, 95%CI-1.03-3.85). There was significant association between age group, gender, BMI, type of accommodation, and the course with the level of physical activity (p value <0.05).

CONCLUSION: The study shows that the medical students lack physical activity and Only 34% of the participants were having normal BMI. Along with the academic activities, physical activities should also be promoted among the medical students.

KEYWORDS: Physical activity, Obesity, Medical college students.

Knowledge, Attitude and Practices Regarding Diabetes In Adult Type 2 Diabetes Mellitus Patients Attending A Tertiary Care Hospital In Pune – A Cross Sectional Study

Deepu Palal, Johnson S, Hetal Rathod, Chaitali Bargaonkar, Vallari Jadav, Gracia Sohkhlet

DR DY PATIL MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTRE, DR DY PATIL VIDYAPEETH, PUNE,

BACKGROUND: Diabetes mellitus in India is becoming a burden as its prevalence continues to rise from 7.1% in 2009 to 8.9% in 2019 turning into the 9th main global mortality cause. Diabetic patients develop complications as a result of a lack of knowledge and poor glycaemic control, hence most effective way to reduce the complications and its management is to educate patients. This study aims at assessing patient characteristics in terms of knowledge, attitude, and practices and thereby planning a tailored and focused approach towards lagging areas adding to effective control.

METHODS: With 75% diabetes knowledge (prevalence), within 95% CI and 4% acceptable error, the minimum sample size was 451. Cross sectional study was carried out using convenience sampling where consenting Type 2 DM patients attending NCD-OPD of district hospital, Pune was interviewed using pretested-structured-questionnaire from April,2022 to July, 2022.Data analyzed using EpiInfo v7.4.2.0.

RESULTS: Median duration of diabetes was 6 years [3-10]. Prevalence of hypertension among the diabetes was 53.86%(49.32%-58.34%) with median duration of 5 years [2-10]. Only 68.16% (63.83 – 72.27) knew about

hyperglycemia in diabetes. 65.81% are aware of hypoglycemia. 44.66% believe that consuming sweets and mental stress (34.62%) were causative factors. Most common recognized symptom is frequent urination(68.59%). 17.09% were unaware of end-organ damage. Awareness towards control measures were medication (95.94%), diet (90.81%), exercise (81.20%), weight reduction (33.12%). 18.16% (14.93%-21.91%) believed treatment can be discontinued after glycaemic control. 67.31% (62.93%-71.40%) believes diabetes as not-curable. 51.07% are of the attitude that occasional sweets and skipping medications (36.11%) were alright. 86.75% (83.38%-89.53%) avoided sugar, 86.11% follow diet advise, 86.11%(82.68%-88.95%) checks blood glucose level. Only 35.68% have periodic eye check-up.

CONCLUSION: All diabetics patients must be screened for hypertension. The priority area to be focused during diabetic counselling are the complications, importance of periodic eye check-up, hypoglycemia and adherence to medications.

KEYWORDS: Glycemic Control, Diabetes Mellitus Type 2, Counseling, Health Knowledge Attitudes Practice

Determinants of Time Lag In Reporting to Hospital Among First Ever Stroke Patients in A Tertiary Care Hospital

Dr. Johnson S, Dr. Kajal Srivastava
 D Y PATIL VIDYAPEETH UNIVERSITY, PUNE

BACKGROUND: An acute stroke patient's prognosis is greatly influenced by the length of time before treatment. Intravenous thrombolytic therapy with recombinant tissue plasminogen activator (r-tPA), which is administered within 4.5 hours of the therapeutic time window, is the most efficient treatment for acute stroke. Hence, the study aimed to assess the time lag and find the determinants of time lag in first ever stroke patients.

METHODS: A Cross-Sectional, Analytical Study involving patients above 18 years with first ever stroke symptoms who were confirmed after radiological investigations as stroke is included. Purposive sampling of 142 patients have been taken with reference from study done by Abraham et al using their mean and SD, the sample size was calculated. Patients or their care givers were interviewed with a preformed structured questionnaire which was validated after piloting 10% of the sample population and data was collected within a period of 7days after the admission.

RESULTS: The median duration of time since symptom onset and arrival to tertiary care hospital was found to be 11.42(3.83 – 47.58). Predominantly 71.92% of the patients reached more than 4.5 hours to get treated for their stroke symptom manifested. Patients presented with aphasia, cognitive impairment, dyspnea, total healthcare visit, distance travelled, disclosure of confirmed diagnosis at health care facility were the determinants showing significant delay ($p < 0.05$) in stroke patient.

CONCLUSION: From the above result, there is a gross delay in reporting and treating the acute stroke patients at the tertiary care level or any hospital with stroke unit. Hence this study helps us to frame appropriate guidelines, recommendations and awareness at population level to reduce the mortality and disability of stroke.

KEYWORDS: First ever stroke, Prehospital Delay, Acute stroke, Therapeutic time window.

Correlation Between Women Empowerment and Socio-Economic Status with Cervical Cancer Screening In India-A Urban Rural Comparison Using NFHS-5 Data

Dr. Keertana M, Dr. Sudharshini S
 MADRAS MEDICAL COLLEGE, CHENNAI

INTRODUCTION: Cervical cancer is second most common cancer among Indian women in terms of prevalence and mortality. It is a highly preventable disease as it takes 10-15 years to develop from precancerous lesions. So, this lead time provides an opportunity for early detection through screening. Women literacy and Socio-economic status (SES) influences screening uptake. Thus, this study aims to analyze the correlation between women empowerment status (WES) and SES with cervical cancer screening of urban and rural India.

METHODOLOGY: We used secondary data based on the National Family Health Survey-5 (NFHS-5) state level factsheet. SES and WES were taken as independent variables and cervical cancer screening uptake as dependent variable. We used dimension indices developed by Iyengar and Sudarshan for this study. Composite score was calculated, and data was analyzed using Spearman's rank correlation and Chi square test.

RESULTS: It is found that Cervical cancer screening uptake is influenced by Socio-economic status and Women empowerment

status in urban India and only by socio-economic status in rural India. The state level indicators show that the Spearman's correlation of cervical cancer screening is moderately positive with the SES (0.464) and WES (0.393) in urban India and SES (0.394) in rural India. Highest screening in urban India is Tamil Nadu (10%) and lowest is West Bengal(0.1%). In rural area highest screening is Puducherry (12.6%) and lowest is Daman and Diu. Individual indicators of SES and WES were not associated with cervical cancer screening uptake in urban and rural India.

CONCLUSION: In this study SES influences Cervical cancer screening uptake in both urban and rural areas of India, whereas WES influenced screening uptake only in urban areas of India. It underlines that improving SES and WES may influence the cervical cancer screening uptake.

However, not all the components of SES and WES considered in the study are equally influential.

KEYWORDS- Cervical cancer, Screening, NFHS-5.

A Study to Assess The Self-Care Practices Among Hypertensive Patients In A Tertiary Care Center, Chennai

Megavi R, Mayadevi T, Dr. Krithiga S, Dr. Seenivasan P
 GOVERNMENT STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Hypertension accounts for 10% of deaths in India. Adherence is the extent to which a person's behavior of taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a health care provider. Non-adherence not only leads to adverse health outcomes but also increased healthcare costs. An understanding of the factors associated with poor adherence can help the policymakers in formulating and directing interventions at specific groups. Therefore, this study is done to assess the self-care practices and to explore factors associated with them.

METHODS: A cross-sectional study was conducted among 119 hypertensive patients who attended the OPD between July-September 2022 using a semi-structured questionnaire containing information on socio-demographic characteristics, morbidity profile and self-care practices (medication adherence, monitoring BP, alcohol abstinence, non-smoking, diet modification and physical exercise). Data was entered in MS Excel and analyzed using SPSS16. Chi-square test was used. P values <0.05 were considered statistically significant. Those who adhered to >3 self-care practices were considered to have high adherence to self-care practices and those who adhered to ≤3

self-care practices were considered to have low adherence to self-care practices.

RESULTS: Among the study participants, 19.3% (23) had low adherence to self-care practices and 80.7%(96) had high adherence to self-care practices (medication adherence=80.5%, regular monitoring of BP=89.1%, alcohol abstinence=94.1%, non-smoking=93.3%, diet modification=71.4%, physical exercise=45.4%). Univariate analysis showed socio-demographic characteristics like sex, education, occupation, family income, religion, diabetes status and place of purchase of medicine were found to be statistically significant to at least one of the recommended self-care practices.

CONCLUSION: Overall adherence to self-care practices was found to be good in study participants. Among the self-care practices, adherence to medication, monitoring BP, alcohol abstinence, non-smoking and diet modification were found satisfactory (>70%). But engagement in physical exercise still needs improvement. Health education and other interventions to promote physical exercise especially among high-risk groups are suggested.

KEYWORDS: Hypertension, self-care practices, Chennai.



Assessment of Lung Involvement Based on Hrct Score Among Vaccinated and Non-Vaccinated Covid-19 Patients Admitted In A Designated Covid-19 Hospital,Tamil Nadu – A Retrospective Study

Dr R.Nivetha, Dr Ramesh Harihara Iyer

TAGORE MEDICAL COLLEGE AND HOSPITAL, TAMIL NADU

BACKGROUND: The first wave of the current pandemic COVID-19 affected senior citizens in larger numbers. So, we began its vaccination drive in India with either Covishield or Covaxin against COVID- 19 for 45 years and older. The study aimed at assessing and comparing the CT severity among COVID-19 patients based on their vaccination status and comorbid illness influencing the severity of lung involvement using HRCT reports among the study participants.

MATERIALS AND METHODS: A Hospital records-based –retrospective study was conducted among COVID-19 patients and the information on their vaccination status, the severity of lung, and comorbid illness. The study participants were selected by consecutive sampling method and the sample size reached 120 patients in a 2months period. The chi-square test was applied for testing the hypothesis.

RESULTS: A total of 120 patients' records were collected in 2-month period of which 72% were male, 48%female and the mean age was 57.9 years. Our study compared the vaccinated and non-vaccinated individuals; it revealed 37% of non-vaccinated patients had more lung involvement whereas among vaccinated individuals 3% which was statistically significant (p-value – 0.0001). Similarly male gender (p-value – 0.0001) and the patients with comorbid illness (P-value – 0.018) showed more lung involvement in our study whereas the age factor has not shown significance in our study.

CONCLUSION: Our study shows that lung involvement based on CT scan among nonvaccinated patients were more compared to vaccinated patients. Hence COVID vaccination is a key to reduce mortality and morbidity in this pandemic.

KEY WORDS: Vaccination, COVID-19, CT Severity

A Community Based Cross-Sectional Study on Knowledge About Dietary Habits and Its Practice Among Pregnant Women of Age Group 18-35 Years In North Chennai

Dr. T. Supriya, Kubendran. V, Lakshmi Priya. A.R, Mahashree. S, Manju.B, K. Komugi, Dr. A. Evangeline Mary, Dr. R. Tamilarasi, Dr. P Seenivasan

GOVERNMENT STANLEY MEDICAL COLLEGE, CHENNAIDIVISIONS (EHD), NEERI, ANNA UNIVERSITY

BACKGROUND: Nutritional inadequacies during pregnancy can have a major impact on the growth, development and health of the unborn child as well as the mother. This study was conducted to assess the knowledge and dietary practices of antenatal mothers in North Chennai.

METHODS: This cross-sectional study was carried out among 100 randomly selected antenatal mothers in North Chennai between July and October 2022, by face-to-face interview using a pretested, semi- structured questionnaire containing questions on awareness and practices of nutrition. Data was entered into Excel and statistical analysis was done using SPSS v.16.

RESULTS: The mean age of the mothers was 24.24 ± 3.97 yrs. About 70% mothers consumed junk food. About 58% of the mothers did not have adequate quantities of fruits per week as recommended for pregnant women. About 62% of the mothers consumed the adequate quantities of non-vegetarian food per week. But the diet of all the mothers (100%) lacked recommended quantity of vegetables

as recommended by National Institute for Nutrition.

On an average the mothers reportedly drank about 3.18 ± 1.19 litres of water per day. About 86% of the mothers were aware that they should modify their diet during pregnancy to meet the nutritional demand. Working mothers had a statistically significant better knowledge about protein (p value-0.005) and calcium rich foods (p value-0.005) than non-working mothers. Statistical significance was also found in the knowledge about fibre rich food between younger (< 25 yrs) and older mothers (25 yrs or older mothers).

CONCLUSION: In this study the knowledge about nutrition and the nutritional practices during pregnancy was found to be unsatisfactory. It is recommended to intensively educate antenatal mothers during the antenatal visits through maternal nutrition counselling which in turn may have a positive effect on the health outcomes of pregnant women and their fetus.

KEYWORDS: Pregnancy, Nutrition

A Study on Assessment of Nutritional Status In Middle School Children In North Chennai

**Dr. Yogeshwaran E Dr. Krithikaa M Dr. Nandhini A Dr. Penicinthiyal J
Dr. Pradeepha Rani P Dr. Preethi P Dr. Evangeline Mary Dr. Seenivasan P**

GOVERNMENT STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Health and Nutritional status of children is an index of national investment of future manpower. The term growth refers to increase in physical size of the body and development of skills and functions. According to UNICEF, 90% of the children suffering from malnutrition globally, are from Asia and Africa. In India, one in every three children is under weight. Obesity in children is also a major problem, in which India ranks second in the world (14.4 million). The determination of Growth and Development are Genetic inheritance, Nutrition, Age, Sex, Physical Surroundings, Psychological Factors, Infection and Parasitosis, Economic status etc.

METHODOLOGY: This cross-sectional study was carried out among 220 randomly selected middle school children studying in a private school in North Chennai, between January-March 2019, by face-to-face interview using a pretested, structured questionnaire containing questions on socio demographic details, food habits, physical activity and bed time. Anthropometric assessment was made using weighing machine and stadiometer. Body Mass Index (BMI) was calculated and weight

status categorized based on CDC BMI-for-age percentile growth charts for boys and girls. Data was entered into Excel and statistical analysis was done using SPSS v.16. P value <0.05 was considered statistically significant.

RESULTS: Out of 220 students, only 98 students (44.5%) were found to have healthy weight. 114 students (51.8%) were underweight and one student (0.5%) was obese. Around 13 students (6%) had more than 4 meals a day and around 21 students (9.5%) never consumed milk. Consumption of oily foods ($P=0.038$) and late bedtime ($P=0.008$) were significantly associated with higher mean BMI.

CONCLUSION: The study reveals association between BMI and oily food consumption. Hence decrease in junk foods and increase in intake of fruits and vegetables can prevent risk factors of future metabolic and cardiovascular disorders. So, there is a need to provide awareness programme among parents and teachers to follow balanced diet according to food pyramid. Such education reminding them of risk factor for various disorders can bring about positive change in their lifestyle, food habits and sleep.

To Assess The Knowledge, Attitude and Perception of The Design on Front of The Packaged Food By Medical Undergraduate Students of A Government Medical College, Bengaluru -A Cross Sectional Study

Dr. Raksha R Nayak, Dr. Jyothi Jadhav and Dr. Ranganath T S
BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE, KARNATAKA,

BACKGROUND: Nutrition is one of the important modifiable risk factors for the increasing burden of Non-Communicable Diseases (NCDs), which contribute to 71% of deaths worldwide. WHO defines Front of Package labels (FoPL) as nutrition labelling systems that are presented on the front of food packages in the principal field of vision; and present simple, graphic information on the nutrient content” The right to know what we eat is a right that must be protected so that they can make healthy choices. Hence the study to assess the knowledge, perception regarding food labels on packaged foods and evaluate perception on different types of FoPL practiced across the world and their preference by medical undergraduates.

METHODS: A Cross-sectional study was conducted among all the 4 professional year medical undergraduate students during months of February to May 2022. By Universal sampling the online questionnaire with digital consent was sent to all 960 students out of which 568 were filled taken as sample size. The data was collected by a pre-tested, semi-structured,

validated questionnaire. The data collected was entered in MS Excel and analyzed using SPSS 21.0.

RESULTS: Packaged food and beverages were consumed by 95.3% of the participants. Awareness about FoPL was widely held by 77% of the participants and 68.4% of them considered this information helpful. Over half (56.4%) of the respondents considered packaged foods as healthy. Health star rating (HSR) were the most preferred food labels (89%), followed by Multiple Traffic Lights (MTL).

CONCLUSION: The study highlighted that student are aware of the nutrition labeling and supported the placement of nutrition labeling on the front of the pack. More evidence-based research is recommended regarding the knowledge and perception of people on feasibility of FoPL design which may lay a foundation to formulate laws and policies regarding the FoPL in India.

KEYWORDS: Front of label packaging, Medical undergraduates, Packaged food, Nutrition.

Multiple Micronutrient Deficiency Among Adolescent Girls - Need For Fortified Nutritional Support In Rural Settings of South Tamil Nadu

Dr. Sunitha K, Dr. Shantaraman K,

THIRUNELVELI MEDICAL COLLEGE, TAMILNADU,
 NATIONAL INSTITUTE OF EPIDEMIOLOGY, AYAPAKKAM,

BACKGROUND: Adolescents contribute to one fifth of the world's population and is a high priority lifecycle stage for nutrition needs and intervention. Nutritional deficiency, including micronutrients, hinders their normal growth and development. Improving adolescent girls' nutrition has reproduction- related benefits and serves as a unique opportunity to break the vicious cycle of intergenerational structural problems. The objective is to estimate the prevalence of malnutrition, anaemia and micronutrient deficiency (Vit B12, Copper, Zinc, Iodine and selenium) among adolescent girls in rural India.

METHODS: Ethical clearance was obtained from the parent Institution and a community-based cross- sectional study was conducted among 241 randomly selected adolescent girls in rural Tirunelveli, India using a semi structured self-designed questionnaire Anthropometric measurements were recorded and BMI-for-age Z-score (BAZ) was used for assessing nutritional status using WHO AnthroPlus software and blood samples were collected from 220 adolescent girls after obtaining informed written consent and assent as per guidelines

RESULTS: The mean age of 241 adolescent girls was 13.8 ± 1.4 years and nutritional status was normal, overweight, obese, thin and stunted in 81.7%, 14.5%, 3.3%, 0.4% and 4.6% respectively. The mean Hb level of 220 adolescent girls was 12.61 ± 2.29 gm/dl, with the prevalence of anaemia being 37.2% (23.1%-mild anaemia and 14.1% -moderate anaemia and none had severe anaemia) The prevalence of iron deficiency and iron-deficiency anaemia were 34.5% and 12.3%. Only 19.1% girls had adequate levels of all micronutrients. Except for selenium, the estimated micronutrient deficiency levels were Vitamin B12 - 40.9%, Copper-30.9%, Zinc-13.6% and Iodine- 11%.

CONCLUSION: Multiple micronutrient deficiency with normal nutritional status is high among adolescent girls with Vitamin B12 deficiency higher than Iron. The study highlights the need to look beyond Iron deficiency in these girls. Multipronged strategies, including introducing micronutrient fortified healthy snacks in schools, might bring greater acceptance and improvement in nutritional health among these girls.

KEYWORDS: Adolescent girls, Nutritional status, Anemia, Micronutrient's deficiency

A Cross Sectional Study on Assessment of Nutritional Status of Migrant Children in Rural Field Practice Area of Chengalpattu Medical College

Dr. Niveditha S, Dr. P Parmeshwari

CHENGALPATTU MEDICAL COLLEGE, INDIADIVISIONS (EHD), NEERI, ANNA UNIVERSITY

BACKGROUND: Around 45% of deaths among children under 5 years of age globally are linked to Undernutrition and is a major health problem in India especially in migrant children. Children of migrants become vulnerable to nutrition insecurity as they lack easy access to subsidized food than non-migrants. The objective of this study is to assess the nutritional status of the migrant children by anthropometry and to determine the various influencing factors.

METHODS: A cross sectional study was conducted among the Migrant children of Manampathy PHC, a rural field practice area of Chengalpattu Medical College which was selected by Multistage Random Sampling. Required Data was collected from 84 children who were present in the hamlets at the time of study through a semi structured questionnaire and anthropometry.

RESULTS: The mean age of the study population is 32.58 + 14.68 Months. Majority are in the age group of 24-36 Months (33.3%). 11.9% of the study population anthropometry falls below -3SD for Weight

for Age (Underweight) ,6% for both Weight for Height (Wasting) and Height for Age (Stunting). There is significant association between malnutrition and type of family, Father's education, Mother's occupation, Type of house, Overcrowding, Low Birth weight ($p < 0.00$, =27.829), High risk pregnancy ($p < 0.004$, =8.159), Exclusive Breast feeding ($p < 0.008$, =7.098). On doing Binomial Logistic regression factors that were found to be significant were Birth weight ($p < 0.037$), History of high-risk pregnancy ($p < 0.021$), Exclusive Breast Feeding

CONCLUSION: This study establishes the extent of problem of malnutrition coupled with problems arising due to Migration which may be a consequence of illiteracy of father and nonemployment of mothers, Low birth weight , faulty feeding practices like Exclusive breast feeding. Urgent attention to reduce the burden of malnutrition among under-five children in migrant children thus preventing them from increased risk of disease morbidity and mortality in later life is needed at this hour.

KEY WORDS: Nutritional status, under-five children, risk factors, Migrant.

Effect of Antitubercular Treatment on Serum Vitamin D Levels In Adult Tuberculosis Patients in Chennai, Tamil Nadu, India: A Pilot Study

Saravanan Natarajan, Souparnika Sreelatha. Bharati Kulkarni, Ponnuraja Chinnaian, Geetha Ramachandran, Hemanth Kumar AK

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, CHENNAI,
ICMR-NATIONAL INSTITUTE OF NUTRITION, HYDERABAD

BACKGROUND: Vitamin D, is an important micronutrient with antimycobacterial and immunomodulatory potentials, the deficiency of which has been suggested as a risk factor for the infection and progression of tuberculosis (TB). Evidence suggests that pharmaceutical agents interfere with vitamin D metabolism, depriving serum levels which may reflect in unintended health consequences. In the present study, we have estimated the levels of serum vitamin D (Vit-D) in adult TB patients that undergo anti-TB treatment (ATT).

METHODS: For this pilot study we have retrieved stored serum samples (NIRT-repository) of 130 adult TB patients collected before and after the ATT and estimated the Vit-D levels using high-performance liquid chromatography. The study population comprised adult TB patients treated with RNTCP regimens from TB units in Chennai, Tamil Nadu, India. The serum Vit-D concentrations <10 ng/mL, 10-25 ng/mL, and >25 ng/mL were categorized as deficiency, insufficiency, and sufficiency respectively. The clean data was for frequency distribution and summary statistics using SPSS 25

RESULTS: Before the initiation of the treatment, the distribution of Vit-D levels in the total participants is <10 ng/ml in 18.2%, 10-25 ng/ml in 53.8%, and >25 ng/ml in 27.8% respectively. The post-treatment distribution of serum Vit-D levels in the participants is <10 ng/ml in 22.1 %, 10-25 ng/ml in 42.3 % and <25 ng/ml in 35.5 %. The ATT treatment does not show a uniform effect over serum Vit-D concentrations in different subgroups of participants.

CONCLUSION: In the given set of participants, there was a trend of increase in the percentage of participants with Vit-D deficiency and adequacy upon ATT while there was a decrease in the Vit-D insufficient participants suggesting an indiscriminate effect of anti-TB treatment on Vit-D levels. However, large-scale prospective trials need to be undertaken to make eloquent remarks on the effects of anti-TB treatment on Vit-D levels.

KEYWORDS: Antitubercular treatment, Tuberculosis, Vitamin D, High-Performance Liquid Chromatography

Evaluation of Anemia Muktbharat (Anemia Free India) In Attur Health Unit District, Tamil Nadu, India, 2022

K Hari Prasad, Jemini, Muthusamy Santhosh Kumar, Latheesh,
ICMR-NATIONAL INSTITUTE OF EPIDEMIOLOGY, CHENNAI,
ATTUR HEALTH UNIT DISTRICT,

BACKGROUND: Prevalence of anemia among girls aged 15-19 years was 52.9% in Tamil Nadu and 40.9% in Salem district. Prophylactic weekly iron and folic acid (IFA) supplementation and deworming are key interventions implemented by Anemia Muktbharat (Anemia free India). The objective of the study was to evaluate behavior change communication campaign, prophylactic weekly IFA supplementation and deworming components of the programme.

METHODS: In 2022, we did a cross-sectional study using logical framework in Attur health unit district, Salem covering 20 Primary Health Centers (PHC), 10 schools, and 20 Anganwadi centers. We collected data by reviewing of records, using facility observation checklist and administering questionnaire among providers. We administered a questionnaire to 264 girls aged between 13 and 17 years from three schools. Proportions were calculated for input, process, output and outcome indicators.

RESULTS: All the 20 health facilities visited were provided with Information Education Communication (IEC) materials, protocols, and guidelines. of the 10 schools visited, none of them had IEC materials. Training was conducted for all medical officers, staff nurses, village health nurses, and school nodal teachers. All the facilities received drugs as per the indent and distributed them to beneficiaries. of the 264 girls interviewed, 97% were aware of IFA and albendazole distribution in schools. However, full adherence to IFA supplementation in the last two months was 32% and albendazole in the last six months was 55%. Providers highlighted unpleasant metallic taste of IFA as reason for lower adherence.

CONCLUSION: Adherence to weekly IFA supplementation and deworming was low among girls. Future studies could determine the reasons for low adherence.

KEYWORDS: Anemia, Schools, Deworming, IFA supplementation

A Comparative Study of Nutritional Status Among The Diabetic and Non-Diabetic Elderly Aged Above 60 Years In Urban Slum at Metropolitan City

Dr. Nikhil Thorat, Dr. Armaity Dehmubed,

T.N.MEDICAL COLLEGE & B.Y.L.NAIR HOSPITAL, MUMBAI,INDIA

BACKGROUND:- Ageing populations have brought with them a myriad of socio-economic and medical problems, tackling which has become a major concern of governments all around the world. Nutrition is a key factor in the ageing process and a significant contributor to future health, helping to maintain good health and reduce the risk of chronic disease. Malnutrition in the elderly further increases an individual's risk of naturally developing general poor health or chronic diseases. The current study is aimed to assess the nutritional status of study participants and compares the nutritional status of study participants with diabetes and those who are without diabetes as co-morbidity.

MATERIAL & METHODS -The study was conducted in community field area attached to urban health centre of Topiwala national medical college & B.Y.L. Nair hospital, Mumbai. Ninety four participants were selected for study using systematic random sampling method. One-to-one interviews were conducted using semi structured questionnaire. Information about socio demographic characteristics,

diabetes status, and addiction was obtained. Nutritional status of participants was assessed by using the Mini Nutritional Assessment ® _ the most widespread malnutrition screening tool for older people to assess the nutritional status among elderly. The comparison of nutritional status between diabetic and non-diabetic was done using appropriate statistical tests.

RESULTS - It was observed that 48.9% of study participants were at risk of malnutrition,37.2% were malnourished while 13.8% were having normal nutritional status. It was found that there was a significant association between nutritional status and diabetic status of study participants ($P=0.000027$).

CONCLUSION - It was found that elderly individuals with diabetes were more at risk of developing malnutrition and were malnourished as compared to elderly individuals without diabetes. Strategies must be devised to improve the nutritional status of elderly individuals who are having chronic illnesses like diabetes

KEYWORDS: - Geriatric, Malnutrition, Diabetes, Nutrition



**OCCUPATIONAL
DISEASES**

Importance of Occupational Health in India

Dr. S Adithyan

SRI RAMACHANDRA INSTITUTE OF HIGHER EDUCATION AND RESEARCH,

BACKGROUND: More than 80% of India's working population is part of unorganized sector. Less than 10% of Indian population are working in organized sector. Variable and insecure nature of work in both organized and unorganized exposes workers to several hazards in their occupation and can lead to occupational disease. Occupational Health and Safety is lacking in both organized and unorganized sector. Occupational Health focuses on protection of workers from accidents, injuries and exposure to hazardous substances at workplace. Occupational health focuses on promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations, prevention amongst workers of departures from health caused by their working conditions, improve morale and productivity.

METHODS: Literature Review suggests occupational health is lacking for majority of Indian workers in unorganized sector. The adverse occupational factors cost 2%–14% of the gross national product (GNP). Large number of unrecognized occupational illnesses

and majority of workforce in unorganized sector, neglected spending in occupational health by government is reflected in high attack rates.

RESULTS: Awareness among stakeholder about Occupational Health and Safety and active participation is lacking. Lack of proper infrastructure and professional related to OHS. There is no formal regulating body and lack of competence-based training and specialist registration. Except few public and private industries occupational safety is usually ignored.

CONCLUSION: There is a need-supply gap in the number of Occupational Health professionals and nursing manpower in India. Awareness on Occupational Health and Safety should be increased through partnership. Good OHS practices, allocation of resources and funding should be highlighted. Legislation should be implemented to cover all sector of working force including unorganized sector.

KEYWORDS: Occupational Health and Safety (OSH), Occupational Health Services, Workforce

A Cross Sectional Study on Assessment of Pulmonary Function of Workers From A Construction Site in Puducherry

Anandaraj R, Kaushik, Harish, Kavita Vasudevan
IGMCRI, PUDUCHERRYATTUR HEALTH UNIT DISTRICT,

BACKGROUND: The major work-related morbidity in India is due to occupational lung diseases. There is a rising demand here for construction workmen as there is a higher requisite for infrastructure. Studies have shown that there is a relation between exposure to cement dust and changes in lung functions. The present study was undertaken to determine the pulmonary function status of construction site workers and to compare the same with that of non-exposed workers.

METHODS: A cross sectional study was conducted in a construction site in Puducherry among 103 cement dust exposed construction site workers and 102 age and gender matched non-exposed subjects employed in the same site; selected by systematic random sampling. Subjects with physician diagnosed respiratory diseases, non-consenting individuals were excluded. Lung function of the subjects were assessed using MIR SPIROLAB III spirometer, adhering to standard guidelines. COVID19 precautions were followed. Obstructive and restrictive pattern of pulmonary function were defined as per GOLD guidelines. Prior permissions and ethical approval obtained.

RESULTS: Mean (\pm SD) age of subjects was 38.2 (\pm 12.4) years. Majority (94.6%) of them were men. Restrictive pattern of lung functioning was observed in 28.2% of the exposed workers as compared to 44.6% of the unexposed workers ($p=0.01$). There was a significant difference between both the groups in mean FVC, FEV1 and %FVC. Mean PEFR and %FEV1/ FVC values were observed to be lesser among the construction site workers as compared to the unexposed workers ($p>0.05$). There were significant differences between both the groups in variables like current respiratory illness, comorbidities, obesity and mean anthropometric indices, but smoking status was not significantly different between both the groups.

CONCLUSION: more than one out of four construction site workers depicted a restrictive pattern of pulmonary functioning. Importance of periodic screening of workers is highlighted.

KEYWORDS: Cement dust, Construction site workers, Lung function, Pulmonary function, PFT,

Assessment of Musculoskeletal Disorders Among Pourakarmikas in Bengaluru, Karnataka: A Cross Sectional Study

Dr. Sahanashree G, Dr. Selvi Thangaraj and Dr. Ranganath T.S
BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE KARNATAKA

BACKGROUND: In a metropolitan city like Bengaluru, solid waste disposal is a challenging task in which Pourakarmikas play a very integral role. 'Pourakarmikas' the terminology used for Municipal solid waste workers in Karnataka for referring street sweepers who collect wastes and carry out cleaning of public places. It includes activities like collecting garbage, recyclable materials, commercial and industrial waste. Municipal solid waste is collected manually requiring repeated heavy physical activity. Musculoskeletal problems are common among waste collectors. Hence the study was conducted to assess musculoskeletal disorders among Pourakarmikas.

METHODS: The cross-sectional study was carried out over a period of 3 months among Pourakarmikas in Bengaluru by Systematic Random Sampling method. According to the previous study by Reddy EM et al, sample size calculated and rounded up to 140. The data was collected using Nordic Musculoskeletal

Questionnaire, which was entered in excel sheet and analyzed using SPSS v27.0.

RESULTS: 93% of the participants were females. Mean years of work experience is found to be 13.8 +/- 2.2 year. 93.3% of Pourakarmikas had musculoskeletal pain, out of which 74% participants had upper back pain in the last 12 months and 86% had upper back pain in the last 7 days. 82% of them complained of shoulder pain, 66% of the participants had lower back pain, 64% complained neck pain and 55% individuals with wrist pain.

CONCLUSION: The musculoskeletal symptoms among Pourakarmikas are mainly due to their nature of job, long duration of employment. Integrated health education consisting of ergonomics and healthy work habits needs to be incorporated in a pre-health screening program.

KEYWORDS: Pourakarmikas, Solid waste management, Musculoskeletal disorder.

Work Related Musculoskeletal Disorders Among The Hospital Workers In A Tertiary Care Hospital In Chennai - A Cross Sectional Study

Dr. Jagath Janani.G, Dr.P.Thirunavukkarasu and Dr. K.Chittrarasu

GOVT. KILPAUK MEDICAL COLLEGE, CHENNAI

BACKGROUND: The prevalence of Work Related Musculo Skeletal Disorders (WRMSD) ranges from 10% to 60% in an organization. They are seldom life threatening but they impair the quality of life and work capacity. This study is aimed at estimating the prevalence of WRMSDs among the Hospital Workers and its relation to their work posture.

METHODS: This is a cross sectional observational study done among Hospital Housekeeping workers in a Govt. Tertiary care hospital in Chennai in April 2022. Sociodemographic parameters collected and assessment of musculoskeletal pain by the Nordic MSK Questionnaire & Cornell MSK Questionnaire. Position of back, arms, legs and weight of the load handled studied using OWAS (Ovako Working posture Assessment System) and classified the risk category. The data entered into Excel sheet and analyzed using SPSS.

RESULTS: 227 Workers were recruited in the study out of which 210 (92.5%) were females. The prevalence of WRMSDs in the

past 12 months was 198, 87.2% and in the past 7 days was 155 (63.8%). Maximum number of workers (136, 59.9%) reported pain in one or both knees, followed by Thigh/buttocks in (78, 34.4 %). 146 (64.3%) workers had multiple (>1) sites of pain. The common postures reported during work were Bent back (164, 72.2%), Both arms below shoulder level (106, 46.7%). All the workers (100%) reported Walking activity pertaining to legs and carried less than 20 kg of load. 164 (72.2%) workers were in OWAS action category 2.

CONCLUSION: Even though it has no immediate concern, they may progress to the 3rd and 4th category if proper posture correction is not done. If the Preventive Musculoskeletal Rehabilitation measures are taken at the earliest, it can help prevent the progression to cumulative trauma disorders and thereby reduce the economic burden and sickness absenteeism due to MSK pain.

KEYWORDS: Awkward posture, Hospital workers, Musculoskeletal pain, WRMSDs (Work Related Musculo Skeletal Disorders)

Health-Related Quality of Life of Health Care Workers of A Tertiary Care Hospital at Chennai

Dr. Saratha and Dr. Vijayalakshmi
 MADRAS MEDICAL COLLEGE, CHENNAI

BACKGROUND: Health-care workers (HCWs) around the world report high levels of workplace stress due to the increasing disease burden. The health of HCWs has a significant impact on the delivery of health-related services. This study aims to assess the health-related quality of life (HRQoL) of HCWs of a tertiary care hospital at Chennai.

METHODS: This cross-sectional study was done among 130 HCWs working at Rajiv Gandhi Government General hospital in Chennai using purposive sampling technique. After getting informed consent, a questionnaire was used to gather information about demographics and medical conditions. The EQ-5D-5L questionnaire with 5 levels of 5 dimensions of mobility, self-care, usual activity, pain/discomfort, and anxiety/depression was used to measure the health-related quality of life of study participants. On the EQ VAS scale, which ranges from 0-worst possible health to 100-best possible health, they also chose their overall health level. Data were entered in Excel, analyzed using SPSS version 21.

RESULTS: The mean age of the participants in the study was 32.3 ± 5.5 years, and 64.6% of them were women. 73.1% of the participants were doctors with an average experience of 6.75 ± 4.4 years. EQ-VAS mean score was 86.1 ± 15.5 . Mobility, self-care and usual activity were each reported as “no problem” by 83.8%, 83.1% and 80% of respondents, respectively. 24.7% and 36.2% reported any level of pain and anxiety/depression respectively. Mobility, self-care, routine activity, pain, and anxiety had an inverse correlation with EQ-VAS, as did years of medical experience.

CONCLUSION: The overall health-related quality of life of HCWs was fair; with mobility, regular activity, anxiety/depression having significant negative impact. Age was not a predictor, but experience had a negative impact. Thus, a program for employee wellness can be developed to increase their wellbeing and, in turn, their productivity.

KEYWORDS: Health, Health personnel, Quality of life, Tertiary care centre

A Cross Sectional Study To Assess The Morbidity Profile of Handloom Weavers In Kanchipuram District

Doss Prasanna, P Seenivasan, R Tamilarasi

STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Handloom industry is one of the oldest and largest cottage industry in India. In this industry, workers are engaged in various activities such as dyeing, warping, winding, twisting, weaving, etc. Awkward posture, continuous noise exposure, poor ventilation, and dust pollution are some of the occupational hazards the workers face in this industry. Occupational hazards in this industry remain neglected across the country. The objective of the study was to delineate the morbidities and its determinants in handloom weavers.

METHODS: This cross-sectional study comprised of 314 adult handloom weavers with at least one year weaving exposure in Kancheepuram district by multistage sampling technique. The study period was July 2022 to September 2022. The study participants were interviewed using a structured questionnaire and were examined clinically to identify various morbidities. Data was collected through Epicollect 5 software. The data was analyzed using SPSS v16.0.

RESULTS: The majority of participants were male (67%) with a mean age of 46.6 +/- 10.9. Overall, 82% handloom weavers had at least one morbidity symptoms. Musculoskeletal pain (71%) and Eye problems (43%) were most common. The other important problems were Gastrointestinal problems (15%), Skin problems (10%), Respiratory disorders(8%), Hearing loss(7%). Skin problems was more likely among weavers indulged in dyeing activity. Musculoskeletal pain was higher in females. Increase in years of weaving was significantly associated with diminished visual acuity, hearing loss and musculoskeletal pain. The risk of morbidities did not differ in terms of age and gender.

CONCLUSION: Majority of the handloom weavers had at least one or more morbidity. The increase in backache and diminished visual acuity with increase in years worked suggested a cumulative effect of workload. The study stresses the importance of ergonomic designs in weaving industry to reduce the morbidity in the workgroup and improve their quality of life.



OUTBREAK INVESTIGATION

Secondary Data Analysis of Child Sex Ratio at Ariyalur District, Tamil Nadu, India, 2022

Dr. M.Geetharani, Dr. T.S. Selvavinayagam, Dr. Sekar, Dr. Srinivasan, Mrs. Sangeetha, Mr. Saravanan, Mr. Vimal
 DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Sex ratio is an important social indicator to measure the extent of equality between male and female in a society at a given time period of time. Regarding the census 2011 and 2021, Ariyalur district belongs to 4th and 6th lowest sex ratio districts in Tamil Nadu, respectively. The study focused on describing the time and place distribution of sex ratio at birth and to estimate the magnitude of missing female child.

METHODS: This descriptive study was carried out between April 2011 to March 2021 by using previous year's data (Form 9/PIGME) census and SRS. It includes live births and still births. We calculated decadal trends and place distribution for child sex ratio, sex ratio at birth and also by birth order. We calculated female live birth proportion by order of birth by chi square analysis for linear trend. We estimated Pre and post birth girl deficit.

RESULTS: The decadal trend of child sex ratio was decline during the past 2011-2022 from 1015 to 973, respectively ratio at birth (SBR) showed an overall declining trend despite

fluctuations, magnitude of declining trend was much for rural. Regarding 3rd order births observed female live births were lower than expected female live births at all six blocks (SBR < 800), lower 2nd order observed female births (SBR (801-900) in Sendurai and Jeyamchondam blocks and lower 1st order observed female live births in Thirumanur block (SBR (801-900)). Female still birth ratio increased over the decade from 726 to 1146. Association between the proportion of observed female live birth and pre-birth deficit of girls on over the decades ($P < 0.001$).

CONCLUSION: Declining Child Sex Ratio is mainly due to declining Sex Ratio at Birth. Decreasing trend of Sex ratio at Birth and female live births proportion decreases with increasing order of birth. Its need implementation of Pre-conception and Pre-Natal Diagnostic Techniques Act, 1994 and Pregnancy Cohort Monitoring to the full extent.

KEY WORDS: Sex ratio, Child Sex Ratio, Ariyalur, Pre-birth deficit

Shoe- Leather Epidemiology in Modern Era – Experience From A Cholera Outbreak Investigation in Karaikal District

Lavanya B, Surendran V, Kavita Vasudevan
IGMCRI, PUDUCHERRY

BACKGROUND: Cholera, though a preventable and treatable disease - serious threat to the public health. Worldwide - 1.3–4.0 million cases and 21,000–143,000 deaths every year. For the past decade in India - 565 reported outbreaks (45,759 cases and 263 deaths). In the month of June 2022 there was an increase in the number of acute watery diarrhoea (AWD) cases in karaikal. Subsequently a team of public health specialist from Puducherry district were deputed to Karaikal for investigation.

To investigate the reasons for the outbreak and to suggest appropriate measures to contain the outbreak and to prevent recurrence

MATERIALS AND METHODS: A team of 4 people including 1 faculty, 2 postgraduates, 1 intern, from the Department of Community Medicine, IGMCRI were involved in the outbreak investigation. The team visited Karaikal in the first week of June 2022. The team visited District Surveillance Unit, identified hotspots, visited hotspot areas and sites of water treatment and storage.

RESULTS: A descriptive study was done. There were two separate outbreaks of cholera cases. First outbreak was in last week of May 2022 and second set starting from second week of June 2022. There was a total of 2709 cases of acute watery diarrhoea. of them 29.6% required admissions. 2 deaths were reported. Out of 338 water samples, more than 200 (59.2%) showed unsatisfactory results and two tested positive for Vibrio Cholera. Out of 139 stool samples from AWD cases, 18 (12.9%) showed positive for vibrio Cholera. We found lacunae in adequate public health engineering measures. Measures of disinfection and control measures were communicated to the stakeholders

CONCLUSION: This outbreak gives us an insight on the need for re-looking on public health engineering measures. In the phase of transition towards NCDs, routine surveillance and preparedness are vital steps towards preventing these receding epidemics.

KEYWORDS: Acute watery diarrhoea, Cholera, Outbreak, Karaikal.

India on High Alert of Deadly E Coli Outbreak – An Outbreak Investigation in The Cuddalore District of Tamil Nadu, South India 2022

Dr. S. Gauthaman, Dr. R. Meera, Dr. R. Karthiga

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Escherichia coli, is an indicator of faecal contamination in drinking water. The World Health Organization (WHO) Guidelines for Drinking Water Quality (GDWQ) state that the detection of E. coli is recent faecal contamination. The association between E. coli counts in drinking water and diarrheal disease is variable due to contaminated groundwater, poor disinfection with chlorine etc. Clustering of acute gastroenteritis cases in Cuddalore District was noted and an outbreak investigation was conducted to determine the extent and cause.

MATERIALS AND METHODS: Clustering of acute gastroenteritis cases on 26.02.2022, from Vellingupattu, Puduchatrum, Cuddalore was reported by the medical officer of the general hospital (GH), Cuddalore, to the district Integrated disease surveillance program unit (IDSP). Rapid response team (RRT) with the urban health nurses (UHN), mid-level healthcare providers (MLHP), women health volunteers (WHV), domestic breeding checkers (DBC). The team visited the hotspots, sites of

water treatment and storage like overhead tank and checked the residual chlorine from OHT, municipal taps, pit taps, and stored water from residents. Sample water was sent to District Public Health Lab (DPHL)

RESULTS : A cross sectional study was conducted. The primary source of drinking water was found to be the municipality water. Point source AGE epidemic is seen in Vellingupattu, Puduchatrum, Cuddalore. Attack rate was 80% in < 18 years of age. Clustering cases were seen around pit tap areas without practising any water purification method. The most common symptom was loose stool and abdominal pain. The water sample showed coliforms probably E.coli. OHT Cleaning and chlorination done. Pit taps and illegal water connections removed.

CONCLUSION: The present outbreak showed that there is an urgent need for strengthening the public health measures OHT cleaning and chlorination.

Investigation of An Outbreak of Dengue Fever In Punnakayal, A Coastal Area of Thoothukudi District, Tamil Nadu-India, 2017- 2018

**Dr. M. Geetharani, Dr. Parthiban, Dr. Ganesan, Mr. Vadivel,
Mr. Sankarasubramanian, Mr. Veerakumar, Mrs. Vadivoo, Mrs. Sahilabanu**

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Thoothukudi district is one of the dengue endemic areas in India. During the month of September 2017, an increased in number of fever cases were reported from Punnakayal, a coastal area of Thoothukudi, Tamil Nadu, India. We investigated that outbreak with the objectives, to describe the distribution of cases, to find out the source of infection and to propose recommendations.

METHODS AND MATERIALS: We did active case search based on the IDSP case definition and did stimulate and passive surveillance among residence of Punnakayal during September 2017. We searched for suspected cases in health care facilities and collected blood specimens. An environmental analysis by collecting water samples and also an entomological survey was studied. We analyzed the outbreak by time, place and person and computed entomological indices.

RESULTS: We identified 124 suspected cases (Attack rate: 15/1000, highest among 0-4 years age group 145/1000 (87/602), followed by 5-9 years age group 38/1000 (24/632), among males 28/1000 (117/4178) and no deaths. Out of 124 cases, 7 (6%) were confirmed by IgM Capture ELISA (MAC-ELISA). The outbreak occurred from September 2017 to January 2018 and peaked between November and December

and lasted till 20 January, 2018. Suspected cases clustered in Savariyarpuram street (Attack rate: 24/1000), followed by South and Ponmanickam Streets (Attack rate: 16/1000). All patients had fever and head ache, 99 (80%) had myalgia and 47 (38%) had retroorbital pain. Breteau index of the three streets were Savariyarpuram-1.4, South Street-5.4 and Ponmanickam Street-3.8. We detected breeding of *Aedes aegypti* mosquitoes in domestic and peri-domestic stored water. They were receiving water from public water distribution system once in three weeks. No other water sources found. But few peoples bought water from tanker Lorries. Both water specimens showed chlorination nil.

CONCLUSION: The outbreak was of dengue fever due to increased density of *Aedes aegypti* mosquitoes both in domestic and peri domestic stored water. We found unavailability of water supplied on daily basis by public water distribution systems educated the public to close the domestic and peri domestic water storage containers and advised water board to supply water frequently at least once in a week after chlorination. Ensured the chlorination of tanker lorry water also.

KEY WORDS: Dengue, Tamil Nadu, India, outbreak

An Outbreak of Add In Kumbakonam Municipality, Thanjavur District, Tamil Nadu, India – February 2020

Shankarprasath Shanmuganathan

DIRECTORATE OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: ADD in developing countries was mostly infectious origin and important pathogens are V.Cholerae, E. coli, salmonella and shigella with fecal-oral route transmission. Contaminated drinking water continues to be the source for most diarrheal outbreaks recorded in India particularly in urban areas with piped water systems with lack of maintenance and leakages.

METHODS: IDSP data were reviewed. Stool sample of 10 patients and water samples from pipelines and households were sent for analysis. Cases were described by time, place and individual characteristics. Case control study done to estimate the strength of association between contaminated municipality water and ADD. Data collected by interview with semi structured questionnaire. Odds ratio with 95% confidence interval calculated to estimate the strength of association.

RESULTS: Similar trend of ADD cases was not reported in the same period previous year. Active case search found 203 cases. Symptoms started to appear on 11/02/2020, peaked

between 16th and 23 nd February and ended on 27th February. Attack rate was high for under five children and old people. Attack rate was high for females. Vomiting presented in 90% cases and abdominal pain and fever presented in 30% and 8% of cases. 70 cases and 280 controls were participated. Consumption of unprocessed municipality water was associated (OR 9.6 95% CI=4.4-20.8) with ADD illness. Stool samples were positive for Vibrio Cholerae and E-Coli. Water samples were positive for coliforms. Many Leakages reported in drinking water pipeline and drainage pipelines.

CONCLUSION: This common source outbreak was significantly associated with consumption of unprocessed municipality water. Incidence was high in under five children and old people as they will be in home for most of the day. Those who spent most part of the day outside by consuming processing water were not developed disease. Periodic maintenance of the pipeline network was recommended.

KEYWORDS: ADD, Pipeline Leakages, Common Source, Dose effect

An Outbreak Investigation of Typhoid Fever in Koviladi School, Budhalur Block, Thanjavur District, Tamil Nadu, India, 2022

V. Gurunathan, Dr. Namasivayam, Dr. Adalarasi and S. Bala

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Typhoid fever is a widespread health issue that is endemic to India. Fever broke out in High School in Koviladi, Budhalur block, Thanjavur District, Tamil Nadu, India, in September 2022. Here, we provide the findings of an inquiry carried out to determine the cause of the outbreak.

METHODS: On September 23, 2022, a rapid response team from the Thanjavur district visited the impacted communities. Totally 41 school children residents of Koviladi and sukkambar village were affected. Five water samples and a total of 14 blood samples were taken from the impacted locations from patients who had fever as their first symptom. Using common biochemical tests, isolates from the blood samples were identified after being cultivated. Antimicrobial sensitivity tests were also performed on the isolates. On all blood samples that were taken, the Widal test was conducted. A sanitary survey was conducted to look for any leaks in the Koviladi and

Sukkambar village water supply and sewage infrastructure.

RESULT: Two (100%) individuals had Salmonella species in their blood cultures, whereas 9 (64.2%) of the 14 patients had positive Widal tests. In all five examined samples of water, a presumptive coliform was found. Sanitary survey carried out in the affected places showed that the water supply pipes of village water supply were in close proximity to the sewage drainage system and there were few leakages.

CONCLUSION: This outbreak caused by Salmonella species and contaminated water supply. Sanitation and chlorination of drinking water supply are the two most important components to be stressed to prevent such outbreaks.

KEYWORDS : Typhoid, widal, Salmonella, Coliforms, Thanjavur

A Cross-Sectional Study of The Etiological Correlates In Children Presenting with Acute Upper Respiratory Tract Infection

Dr. S. Fouziya Sultana, Dr. Srilakshmi and Dr. P. Sowkanthika

ADYAR UCHC, GREATER CHENNAI CORPORATION

BACKGROUND: Acute respiratory tract infection (ARI) amounts to 69% of communicable diseases with 41,996,260 cases reported in the year 2018 in India. Acute upper respiratory infection (AURI) alone accounts for 85-88% of ARI cases globally and is one of the most common childhood illnesses with mostly an acute, self-limited course. The objective of the study was to identify the prevalence of viral AURI in pediatric age group of 2-12 years, identify the common causative viruses in the region of study and to correlate them clinically as a high volume of paediatric patients coming to the opd presented with symptoms of AURI.

METHODS: A cross-sectional out-patient department (OPD) based study was conducted in Basic emergency Obstetric and Newborn care services (BEmONC) centre in Adyar, Chennai for a short period from 16th September, 2022 to 24th September, 2022 with a total sample size of 65. Children in between the age group of 2 completed years to 12 completed years who presented to the OPD with symptoms of fever, cough and rhinorrhoea for a period of 5 days or more but less than 14 days suspected to be of viral etiology were included in the study. Demographic data, clinical features, basic blood reports were recorded. Oropharyngeal swabs were collected and were transported in Viral Transport Medium (3ml). They were tested

for Respiratory Syncytial Virus (RSV), Influenza, Parainfluenza, Adenovirus and Coronavirus by nucleic acid amplification. The results were statistically analysed .

RESULTS: A total of 65 children with URTIs were included. Majority (53.8%) were males and 2-5 years of age (63.1%). Common manifestations of URTI were fever (100%), cough (79%), rhinorrhoea (62%), pharyngitis (79%) and conjunctivitis (12.3%). None (100%) of them vaccinated for Flu vaccine. Oropharyngeal swabs showed 18.46% positivity for Influenza H1N1 and 31.3% for RSV. Majority (81.54%) of children were given supportive treatment and 18.46% received Oseltamivir. Antibiotics were started empirically in 27.69%. Most of children (76%) recovered within one week and 100% within two weeks. No children were hospitalized and children positive for HINI were isolated at home for 7 days. Complications or deaths did not occur.

CONCLUSION: Majority of URTIs in children resolved with supportive treatment and do not require antibiotics. Prevention of influenza infection through vaccination is the best strategy to reduce its disease burden and high rates of School absenteeism.

KEYWORDS: Acute upper respiratory tract infection, Respiratory Syncytial Virus, Influenza, Flu Vaccine

Comparison of Ihip – Idsp Data With Covid Data of Sivangai Hud from September – 2021 to September 2022

Dr. A. Krishnaveni, Dr. M. Vijaychandran

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: IHIP – IDSP is IT enabled disease surveillance system for epidemic prone diseases to monitor disease trends and to detect and respond to outbreaks in early rising phase through trained Rapid Response Team. Mainly in this current Covid 19 pandemic situation, regular analysis of IHIP data will help us to know the real time data of the field in terms of increasing and decreasing trends of outbreak, which symptom predominant in each wave of outbreak etc.

METHODS: A record based descriptive study was conducted to compare the IHIP – IDSP data with COVID data of Sivangai HUD from September 2021 to September 2022 .Records

of month wise IHIP - IDSP data and Covid data was entered in Excel and analyzed

RESULTS: Line diagram shows two peaks in Covid cases from Sep 2021 to Sep 2022. First peak between Jan to Feb 2022 and the second one between June to August 2022. Both the peak waves coincide with IHIP –IDSP data mainly fever less than 7 days and cough less than 2 weeks duration.

CONCLUSION: IHIP –IDSP data synchronize with Covid data. So Regular analysis of IHIP – IDSP data will help us to identify impending outbreak at an early stage itself.

KEYWORDS: IHIP -IDSP, Covid, Data.



Analysis of Pattern of Drug Use Using Who Core Drug Indicators Among General OPD Patients in A Rural Area of Puducherry

Anandaraj R, Sivagami K, Vignesh M, Maharani, Kavita Vasudevan

IGMCRI, PUDUCHERRY

BACKGROUND: Prescription auditing reflects the quality of health care provided in the primary health care facility. Objective of this research was to evaluate the pattern of drug use among general OPD patients of a rural health care facility using WHO core drug use indicators.

METHODS: A cross-sectional study was conducted in a rural peripheral health centre in Puducherry for a period of one year during which 1200 prescriptions were analyzed using the World Health Organization/ International Network of Rational Use of Drugs (WHO/ INRUD) monitoring tool to evaluate the prescription practices. Prescriptions of consenting patients (3-4) attending OPD for general ailments were chosen randomly on daily basis. Observations and patient interviews were done to assess the patient care indicators. Prior ethical approval obtained.

RESULTS: The average number of drugs per encounter was 3.1. Percentage of prescriptions with drugs in their generic name was 65.7%, 39.8% of the encounters had antibiotics prescribed. Around 23.0% of the prescriptions

contained injection. About 97.4% of the prescribed drugs were available in the essential drug list. The average consultation time was 2.6 minutes, average dispensing time observed was 20.8 seconds. Out of the 3723 drugs prescribed, 92.2% were actually dispensed and 77.5% were adequately labelled. Out of the 1200 patients interviewed regarding the dosage, 72.0% had knowledge regarding the correct dosage. The health centre had a copy of the essential drug list and 83.0% of the drugs were available from the key drug list.

CONCLUSION: When compared to WHO/ INRUD recommendations, majority of the indicators exhibited sub-optimal values. Timely interventions like continuing medical education for the budding physicians, improving the doctor-population ratio, adequate number of pharmacists in the public health facilities will improve the health care provided in the primary health care facility which is the first point of care to the patients.

KEY-WORDS: Polypharmacy, Prescription auditing, Puducherry, WHO core drug use indicators

Chronic Otitis Media In Rural School Children In The Post Covid Period In Southern Districts of Tamil Nadu

**Ganapathy S, Rajkamal Pandian D, Suresh kumar S,
Sunita K, Shantaraman K Sudharson, Pratheeksha, Lakshmi Kandan**

KILPAUK MEDICAL COLLEGE, TIRUNELVELI MEDICAL COLLEGE,
THOOTHUKUDI MEDICAL COLLEGE, MRHRU, TIRUNELVELI

INTRODUCTION: Chronic otitis media (COM) is a major health problem throughout the world especially in the underdeveloped and developing countries including India. In India, the prevalence of COM varies from 1.4 to 15.3 in various previous studies. This study was done in Post covid period, to estimate the prevalence, to assess significance of certain risk factors of chronic otitis media among school children, and also to evaluate their level of health seeking behavior.

METHODS: A cross sectional study involving 3432 school children from schools around Model Rural Health Research Unit Tirunelveli, was undertaken after the schools reopened from the Covid pandemic. Detailed report of symptoms, habits, treatment history were recorded from parents or guardian. Complete otological examination was done by ENT Surgeon and findings were recorded. Risk factors included were age, sex, nutritional status, source of drinking water, passive smoking in home, overcrowding, parent literacy status, habit of ear picking, habit of taking bath in ponds, recurrent nasal infections among the children.

RESULTS: The overall prevalence of chronic otitis media is 1.2%. The major symptom among those with CSOM is ear pain (80%) followed by ear discharge (40%). The students with h/o ear discharge were classified into new (8%), persistent (18%), recurrent (26%) and dry perforated (46%) out of which 50% of the children were not seeking definitive care for their problem. Source of drinking water from unprotected source (p value = 0.004), habit of ear picking (p value = 0.03), recurrent nasal infections (p value < 0.000) was found to be associated with CSOM.

CONCLUSION: The present study done in the post Covid period was able to establish a low prevalence rate of chronic otitis media than the previous studies done in this part of India. The children seeking for definitive appropriate treatment is still 50% and so chronic otitis media continues to exist as a public health problem. There is a need for better awareness on the issue among both teachers and parent to weed out the problem among school going children. Better screening practices and better referral mechanism at primary level are necessary.

KEYWORDS- CSOM, Otitis media, Ear discharge

Effectiveness of Training For School Teachers In Early Identification of Skin Disorders Among Primary School Attending Children - A Quasi-Experimental Study

**Dr. P.Nirmaladevi, Dr. K.Sunitha, Dr. K.Shantaraman,
Dr. J.Yuvaraj, Dr. Manoj Murhekar**

TIRUNELVELI MEDICAL COLLEGE, TIRUNELVELI, INDIAN COUNCIL OF MEDICAL RESEARCH- CHENNAI
NATIONAL INSTITUTE OF EPIDEMIOLOGY, CHENNAI

INTRODUCTION: Skin diseases are a major health problem in the paediatric age group and are associated with significant morbidity. The overall point prevalence of identifiable skin conditions is reported to be 38.8% in Tamil Nadu. As teachers spend more time with students next only to parents, early identification of these disorders with the help of teachers will complement school health program under RBSK by early referral to PHC or DEIC to prevent complications and school absenteeism.

OBJECTIVE: To train teachers to identify skin diseases in primary school children and estimate the improvement in school referral rate after training, and compare it with the control area

MATERIALS AND METHODS: Government and aided primary schools belonging to the field practice area of Model rural health research unit (MRHRU) situated in the Kallur Village of Tirunelveli District within the state of Tamil Nadu, India. Subsequent to the collection of baseline data from the school health records of RBSK and district early intervention centre

(DEIC), training of school teachers regarding abnormal skin changes and the need for early treatment and referral and maintenance of health records with audio-visual presentation, handbook for referral and provision of model register and referral slip would be done with pre-and post- tests. They would be taught to refer them under 10 simple headings like colour change, itchy condition, skin patches or nodules etc in the vernacular language. Comparison of difference in number of cases diagnosed and referred over 6 months before and after intervention will be analyzed between study sites and control. Data collection is ongoing at present. Final data will be presented at the conference.

CONCLUSION: With this study, objectives of school health program can be attained well with the contribution by teachers which will also complement the services of medical officers under RBSK.

KEY WORDS: Skin disorders, School children, Training, Primary Teachers, MRHRU, South India

A Study on The Satisfaction of Services By The Beneficiaries In Medavakkam Primary Health Centre

Dr. D. Prince Annadurai, Prof. J. Johannes Samuel
MADRAS CHRISTIAN COLLEGE, TAMBARAM

BACKGROUND: This study was conducted to find the relationship between the respondents' perception, knowledge and use of services provided in the IP, OP and Community by the PHC and the overall satisfaction of respondents. It also aimed to examine the relationship between the respondents' perception of satisfaction with health care providers (Provider satisfaction) in the PHC and to analyze the various factors contributing to the satisfaction of services. The research design was Descriptive. The Universe consisted of 1856 women who attended the Medavakkam PHC for their deliveries in the year 2014. The sample size in this study was 318. Simple Random Sampling technique by using lottery method was used to select the respondents. The researcher used an OPD Services Satisfactory Scale and Provider Satisfaction Survey Instrument (SERVQUAL model) along with 4 scales prepared by him (To measure perception, knowledge, Use of quality of services in the OP, IP, and in the community and a scale to measure overall satisfaction of PHC).

RESULTS: Use and Knowledge of services were the key variables which had direct significant influence on the overall satisfaction. More the use and knowledge of services, more was the Overall satisfaction. Use of services facilitated the knowledge of services. Use of services to Overall satisfaction is mediated through perception of provider satisfaction and perception of quality of services. However, this mediation was not statistically significant.

CONCLUSION: Though the respondents were highly satisfied with the services provided by the PHC it is suggested that it can be achieved with more community involvement than with mere services provided by the PHC staff. Social auditing, increased accountability through effective community participation and appointment of Social Workers in the PHC will help to achieve this strategy.

KEYWORDS: PHC, Patient Satisfaction, Community involvement.

Assessment of Standards of Health and Wellness Centres In Rural and Urban Areas Cuddalore District Using Kayakalp Assessment Tool

Dr. Abinav Sivakumar , Dr. Abhijit V. Boratne and Dr. Lalithambigai. C

CHETTINAD HOSPITAL & RESEARCH INSTITUTE, CHENNAI,
MAHATMA GANDHI MEDICAL COLLEGE AND RESEARCH INSTITUTE, PUDUCHERRY,

BACKGROUND: As a part of the Swachh Bharat Abhiyaan campaign, the Ministry of Health and Family welfare launched “Kayakalp”, an initiative to promote cleanliness and enhance the quality of public health facilities. There are not much of pre-existing studies assessing the performance of Health and Wellness Centres using the kayakalp checklist. Therefore, this study was aimed to assess the quality of health facilities in rural and urban areas of Cuddalore district evaluating all the seven thematic areas in kayakalp assessment tool.

METHODOLOGY: A descriptive cross-sectional study was undertaken among seven of the HWC-PHCs of Cuddalore district, four from urban and three from rural area over a period of three months. Simple sampling was used to select the respective HWCs. The assessment methods used in this study were direct observation (OB), Staff Interview (SI),

and Review of records and documents (RR). Kayakalp assessment tool for HWC-PHCs with beds was used and all seven thematic areas were assessed. Data were entered in Microsoft Excel 2018 and analyzed using standard statistical package SPSS Version.21.0.

RESULTS: In the present research, the total average thematic scores of urban and rural HWCs were 77% and 83.8% respectively. On comparing, the urban and rural average thematic scores, it has been noticed that the rural average score of HWCs is higher when compared to urban average score of HWCs.

CONCLUSION: In this present study, the rural HWCs have better quality of standards as per kayakalp assessment checklist in comparison with urban HWCs.

KEY-WORDS: Health and Wellness Centres, Ayushman Bharat, Kayakalp assessment, Quality of services

Utilization Patterns and Satisfaction Levels Among Beneficiaries Attending Ayushman Bharat Health and Wellness Centres In A Coastal District of Tamil Nadu, South India

Dr. Abinav Sivakumar, Dr. Abhijit V. Boratne and Dr.Lalithambigai. C

CHETTINAD HOSPITAL & RESEARCH INSTITUTE, CHENNAI,
MAHATMA GANDHI MEDICAL COLLEGE AND RESEARCH INSTITUTE, PUDUCHERRY,

BACKGROUND: This study was conducted to find the relationship between the respondents' perception, knowledge and use of services provided in the IP, OP and Community by the PHC and the overall satisfaction of respondents. It also aimed to examine the relationship between the respondents' perception of satisfaction with health care providers (Provider satisfaction) in the PHC and to analyze the various factors contributing to the satisfaction of services. The research design was Descriptive. The Universe consisted of 1856 women who attended the Medavakkam PHC for their deliveries in the year 2014. The sample size in this study was 318. Simple Random Sampling technique by using lottery method was used to select the respondents. The researcher used an OPD Services Satisfactory Scale and Provider Satisfaction Survey Instrument (SERVQUAL model) along with 4 scales prepared by him (To measure perception, knowledge, Use of quality of services in the OP, IP, and in the community and a scale to measure overall satisfaction of PHC).

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CONCLUSION: Though the respondents were highly satisfied with the services provided by the PHC it is suggested that it can be achieved with more community involvement than with mere services provided by the PHC staff. Social auditing, increased accountability through effective community participation and appointment of Social Workers in the PHC will help to achieve this strategy.

KEYWORDS: PHC, Patient Satisfaction, Community involvement.

Cross Sectional Study To Assess The Level of Burnout Among Village Health Nurses In Rural Area of Tamil Nadu

Dr. S. Abipriya, Dr. K. Caroline Priya
MADRAS MEDICAL COLLEGE, CHENNAI

BACKGROUND: Village health nurses are the backbone of primary health care in India. They play a vital role in the implementation of various policies and programs at the field level. Some of the factors that may affect work efficiency are emotional exhaustion, lack of motivation, and feelings of frustration, this may lead to reduction in work output. (Dhusia et al., 2019)

METHODS: It is a cross-sectional study conducted among village health nurses in rural area of Tamil Nadu. The sample consisted of 143 VHNS working in primary healthcare centers across Tamil Nadu accessed through snow-ball sampling method. The “Copenhagen Burnout Inventory” questionnaire was used to assess the prevalence of burnout. Questionnaire involves six questions about personal burnout, seven questions on work burnout and six questions on client related burnout.

RESULTS: Mean age of the study participants (n=143) was 41.8 ± 9.6 years. Mean duration of work in public sector was 10.1 ± 8.9 years.

About 23% respondents had personal burnout, 8.5% had work-related burnout, and only 6% had client-related burnouts. The prevalence of physical burnout (33.3%) and work-related burn out (12.5%) was high among participants with less than 40 years of age. Client related burnout (7%) is more among those above 40 years of age. The prevalence of physical burnout (25%), work-related burnout (12.5%) was more in participants with experience upto 10 years. However, the client related burnout (10.6%) is more among those with > 10 years experience.

CONCLUSION: The prevalence of burnout syndrome among village health nurses is relatively high. Interventions targeted to improve the physical and mental health of health care providers is the need of the hour before it affects the work efficiency and motivation. Stress management strategies among village health nurses at primary health center level will help to improve work and personal life balance. (Dhusia et al., 2019)

KEYWORDS: Burnout syndrome, occupational burnout, Health workers burnout



How do Village Health Nurses Navigate The Practice of Ethics and Professionalism? – A Qualitative Exploration

**Sudharshini Subramaniam, Vijayaprasad Gopichandran,
Balasubramaniam Palanisamy, Priyadarshini Chidambaram,
Maira Jusler Kalsingh,**

RURAL WOMEN'S SOCIAL EDUCATION CENTRE

BACKGROUND: Village Health Nurses (VHN) form the backbone of the community based primary health care delivery machinery of Tamil Nadu. The VHNs perform a wide range of activities in communities from registration and care of pregnancies to screening and providing primary care to non-communicable diseases. The VHN training has only brief modules on ethics and professionalism.

OBJECTIVES: We intended to explore the experiential wisdom of ethics and professionalism among Village Health Nurses in Tamil Nadu to document the existing awareness and practice of ethical principles.

METHODS: We conducted in-depth interviews among senior experienced VHNs in 6 districts of Tamil Nadu after obtaining appropriate administrative approvals. We obtained written informed consent and audio recorded the interviews. We transcribed the recorded interviews in Tamil. We did open coding of the transcripts and closely evaluated the codes for emergent themes. We present in this paper some of the preliminary analysis of this study.

RESULTS: The VHNs practice of ethics and professionalism was not standardized.

Each VHN had her own conceptualization of right and wrong and tried her best to uphold what she perceived as right. Doing good was perceived from a paternalistic viewpoint by the VHNs. They held on to some medical interventions as good, e.g., sterilization surgery after giving birth to two children, and did not hesitate to 'convince' or even 'coerce' their clients to get the intervention. They practiced non-discrimination and justice to the best extent possible. Though they all agreed that privacy was not always possible, they had their own innovative strategies to provide privacy to their clients. They were sensitive to the issue of maintaining confidentiality in case of stigmatizing illnesses. Some of them expressed distress as were over-burdened with work, and they were unable to provide work of the same quality that they used to before.

CONCLUSIONS: There is a need to train VHNs on ethics and professionalism to make their awareness and practice of ethics standardized.

KEY WORDS: Community health workers, Village Health Nurse, ethics, professionalism, confidentiality, privacy, autonomy

Swot Analysis of Health Care Financing Scheme In A Tertiary Care Hospital – Patients’ Perspective

Dr. K. Sunitha, Gowtham Raja. S, Dr. Sivakami

THOOTHUKUDI MEDICAL COLLEGE, TIRUNELVELI MEDICAL COLLEGE

BACKGROUND: Health insurance schemes are an emerging tool for providing financial protection against health-related poverty. Research on impact of publicly financed health insurance has paid relatively little attention to the nature of health care provision the schemes engage. Enhancing patients’ satisfaction through providing high quality services is an important goal of a hospital. This study aims to describes the Strength, weakness, opportunity and threats of Health Insurance Scheme operational in Tamil Nadu state and explored the perceived satisfaction of insured clients in healthcare financing services at a government tertiary care hospital.

MATERIALS AND METHODS: A cross sectional study was done among 200 respondents availing health care services under health financing scheme in Tirunelveli Medical College Hospital. by using systematic random sampling technique. Data were collected through HealthQual tool questionnaire- which includes five domains-Empathy, Tangible, Safety, Efficiency, and Improvements of care service) for quantitative element and focus

group discussion for the qualitative element to assess the patient’s perspective

RESULTS: Out of 200 insured patients, 59.5% patients were benefiting for the first time from the health insurance scheme. The Strength is 95% of the patient feel the scheme is beneficial to them and their family. Weakness is the increased hospital stay reduces the satisfaction level. Opportunities is 80% of the patients believe that their out-of-pocket expenditure on health has reduced because of this scheme. Threat being the application process Overall rating on quality of health services is empathy was 3.9, tangible was 3.9, safety 3.9, efficiency was 3.8 and improvements of care services were 3.9.

CONCLUSION: Improving the montage benefits and disease coverage in the existing scheme would be more beneficial in terms of achieving the goal: The quality of services can be improved to a maximum potential so that access to good quality of health care services will be feasible for all.

KEY WORDS: Health financing, quality, HEALTHQUAL



Assessment of Knowledge, Attitude and Practice of Tobacco Smoking Among 20-50 Year Old Population In Nagapattinam District, Tamilnadu- A Cross Sectional Study

Dr. Prathap

(NATIONAL TOBACCO CONTROL PROGRAMME) DISTRICT TOBACCO CONTROL CELL,
NAGAPATTINAM DISTRICT

BACKGROUND: Tobacco use is the leading cause of non-communicable diseases which account for over 60% of fatalities in India. According to the Global Adult Tobacco Survey, about 35% of individuals in India use tobacco in some manner. The fiscal exercise has been a routine increase in excise duties, year after year, in almost every budget. Whatsoever strategy is being used; community participation is of utmost importance for the program to be successful. Hence this study was an attempt to know the perspective of the smokers for effective implementation of tobacco control programs.

METHODS: A cross sectional study was conducted among 18–50 year old population of Nagapattinam district. After obtained ethical approval a total of 300 participants were recruited for the study using cluster random sampling method from the outpatients attending all block primary health centres, after obtaining informed consent from those who fall into the inclusion criteria. Pretested Questionnaire was used for data collection and statistical analysis was performed.

RESULTS: Results show that all the study participants had the knowledge of harmful effects of tobacco use. Only 50% of the study participants had knowledge regarding secondhand smoking and its effects. Almost 60% of the study participants had changed the brand they use due to an increase in price. Approximately 20% of them reduced the frequency of smoking due to its high cost. No significant difference between socio economic status and frequency of cigarette smoking. The results are only preliminary.

CONCLUSION: Smokers, despite having the knowledge of ill effects continue smoking. They are unable to quit smoking due to lack of professional guidance. Percentage of smokers with change of cigarette brand is higher than the percentage of smokers who reduce the frequency of smoking with respect to increase in cigarette price.

KEYWORDS: Population, Smoking, Smokers, Tobacco.

Usefulness of Youtube Videos For Learning Oral Cancer Screening Use Oral Self Examination

Dr. Vinoth Kumar Kalidoss, Dr. Satvinder Singh Bakshi, Dr. Jitendra Chawla, Dr. Rajeev A, Dr. Abhijit V. Boratne

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, MANGALAGIRI, AP,
 MAHATMA GANDHI MEDICAL COLLEGE & RESEARCH INSTITUTE, PONDICHERRY

BACKGROUND: Oral cancer accounts for around 30% of all cancers in India and India contributes to one third of oral cancer cases globally. It also ranks as first among male and third among female in mortality due to cancer in India. Studies shown oral self-examination is an effective tool to improve the awareness of oral cancer and for the early detection of lesions.

METHODS: A cross sectional survey for the video search was conducted on YouTube using the key words “oral self-examination” “Mouth Self-examination” and “Oral cancer screening”. The First 50 videos were selected from each Key word search. A structure observational checklist was used for evaluating the videos which contains 3 domains. The number of views, likes, days of availability on YouTube and No. of comments were collected. A structured checklist was used to evaluate the usefulness of videos

by a public health expert, otolaryngologist and oral maxillary surgeon.

RESULTS: Total 150 videos were screened 56 were filtered out as duplicates. Out of 94 filtered videos 46 were selected for study as per exclusion criteria. The median (IQR) duration of videos was 2.27(1.18-4.39) Mins. The median (IQR) number of view and likes of videos were 1572(176- 10559) and 8.5(1.75-34.00). The mean (SD) overall usefulness score was 10(2.9). The duration of video had positive correlation with number of views, likes and comment.

CONCLUSION: YouTube videos on oral self-examination could be use as medium of increased awareness on oral cancer and for learning oral self-examination.

KEYWORDS: Oral self-examination, Usefulness of Youtube videos, Oral Cancer Screening

A Kap Study on Tobacco Use Among Government School Students Aged 13-17 Years In Tiruppur District, Tamil Nadu

Dr. C. Jayapriya, Dr. C. Sowmiya & Miss. D.M. Kanchana

DEPUTY DIRECTOR OF HEALTH SERVICES, TIRUPPUR

BACKGROUND: Tobacco use is the most preventable cause of disease and premature death worldwide. As per Global Youth Tobacco Survey-4 reports (GYTS-4) conducted in India during 2019 among adolescent aged 13-15 years, showed prevalence of tobacco use on any form was 8.5% in the country and in Tamil Nadu it was around 4.8 %, the median age at initiation of cigarette and bidi smoking, and smokeless tobacco use were 11.5 years, 10.5 years and 9.9 years respectively. This alarming statistics and early age of initiation, paved the way for us to carry out this KAP (Knowledge, Attitude & Practice) study on tobacco use among school children.

METHODS: A cross sectional study was conducted among 3178 randomly selected Government school students aged 13 to 17 years using cluster sampling method in Tiruppur district during September to November 2022 by using interviewer administered pre tested questionnaire by trained RBSK medical officers and team along with District tobacco cell.

RESULTS: Among 3178 study participants 59% were males. Nearly 88% of the study participants were aware of the harmful effects of tobacco use. Nearly 12% of the study participants have not even heard of the term tobacco. Approximately 1/3 of the study participants has second hand smoke exposure due to family members or friends using smoking form of tobacco. Around 12 % had occasional thoughts of using tobacco. The prevalence of tobacco use among the study participants was 2.7% and the most common form of tobacco products being used was coollip (chewable form of tobacco).

CONCLUSION: The awareness regarding the ill effects of tobacco use need to be improved by means of constant awareness program at the level of school. Separate counselling session by trained school teachers and psychologist need to be given even before initiation of the Tobacco use.

KEY WORDS: Tobacco, Knowledge, Attitude, Practice.



Prevalence of Cyberchondria and Its Association With Self-Medication Practices Among Adults In Puliyanthope, Chennai – A Cross-Sectional Study

Dr. A. Daivik, Dr. M. Vijayalakshmi, Dr. A. Arvinth Ram
MADRAS MEDICAL COLLEGE, CHENNAI

INTRODUCTION: Excessive and frequent internet use to seek health-related information may result in cyberchondria, an unexplainable online-search-related anxiety that has been noted as an increasing concern about the negative implications of technological advancement. The connection between cyberchondria and anxiety and obsessive-compulsive disorder symptoms has public health repercussions in the form of functional impairment and altered healthcare utilization including self-medication practices. We therefore conducted a study to determine the prevalence of cyberchondria and its contributing factors in Chennai.

METHODS: A Cross-sectional study was conducted in Puliyanthope, Chennai among 160 adults aged 18-60 years selected using simple random sampling and after informed written consent, data was collected using a pretested validated questionnaire [Cyberchondria Severity Scale-CSS-12] and analyzed using SPSS-21.

RESULTS: 67.5% of participants were below 45 years of age and 56.9% were females. Most common symptom for which web search was done was headache [66.7%] and most

common source of health information was WhatsApp [79%]. Most common reason for internet search was because they perceived their symptoms as mild [34%] followed by being cheaper than other methods [30%]. Prevalence of cyberchondria was 50.7% and most common pattern was excessiveness [74%] followed by reassurance [53%]. Similarly, Prevalence of self-medication use was 32.5%. Determinants identified were having Higher education [OR-4.23, $p < 0.05$], Being in nuclear family [OR-2.87, $p < 0.05$], duration of internet usage being more than 6 hours/day [OR-3.49, $p < 0.05$], 24x7 access to internet [OR-3.66, $p < 0.05$], use of excessive internet at night [OR-6.79, $p < 0.05$]. It was also identified that there was significant association between cyberchondria and self-medication use [OR-4.80, $p < 0.001$].

CONCLUSION: 50.7% had cyberchondria of which 1/5th of participant had severe cyberchondria which raises the concern for the ethical usage of technology for Health and usage of online health platforms such as e-Sanjeevani

KEYWORDS: Cyberchondria, Smartphone, Internet, Anxiety, self-medication



Timely Takeoff of Telemedicine During The Dreadful Days - The Covid-19 Pandemic

Dr. A. Keerthana, Dr. Ramesh HariHara Iyer

TAGORE MEDICAL COLLEGE AND HOSPITAL, CHENNAI

BACKGROUND: Telemedicine is a term to refer the remote delivery of health care and health information. It can effectively limit patients as well as doctors exposure to COVID-19 disease. The patient can receive care from the safety of their homes. Physicians' perception play critical role in the health system and the functioning of telemedicine. Thus, their acceptance is important to increase positive attitude and confidence in using telemedicine, for local sustainability and the further deployment of the technology.

METHODS: A Cross-sectional study on physicians, who are practicing telemedicine application in Tamil Nadu. It was conducted from March 2022 – August 2022 (6months) with sample size of 300. A self-administered questionnaire was sent through google forms. The google document link is mailed to concerned physicians and responses are recorded.

RESULTS: Among 300 physicians, about, 64% of doctors are feeling comfortable in using the telemedicine application, rest 36% of physicians are not feeling good with this application. About

50.5% of the doctors satisfied, rest of them are not really satisfied in virtual consultation. As it is virtual mode and there is lack of physical examination, 66% doctors' impression with telemedicine application is that "there is difficulty in arriving at diagnosis". But rest of the doctors (34%) doesn't have any difficulty in arriving at diagnosis. The multinomial regression analysis tells us that designation, patient revisit, Technological and logistical limitation as a barrier, saves time for the doctors, reduce unnecessary outpatient visits, telemedicine will decrease after the COVID-19 pandemic are statistically significant.

CONCLUSION: Telemedicine usage during the COVID-19 pandemic was taken as research question and perceptions of physicians towards telemedicine service, who are actually administering it was found to be positive. Thus, telemedicine can be adopted worldwide, and technology can help in monitoring patients from home and it can enhance the quality of care.

KEYWORDS: Telemedicine, Physicians COVID-19 pandemic, Perception.

Effective Implementation of Reverse Quarantine Strategy Using Novel M Health Technology and Community Participation For Control and Prevention of Covid-19 In Kerala

**Dr. Geethu Mathew, Shri Nooh Bava IAS,
Dr. Abey Sushan, Dr. Aby Dany, Dr. Anoop Ivan Benjamin**

ICMR-ROHCS, NIOH, KARNATAKA, DPM, NATIONAL HEALTH MISSION, KERALA,
K S HEGDE MEDICAL ACADEMY, KARNATAKA, BCMCH, KERALA, INDIA

BACKGROUND: Project Vayoraksha aimed at developing and pilot testing M health technology assisted strategies (Mobile application and field Vayoraksha network) to reduce risk of Covid-19 among elderly by improving health care delivery and reverse quarantine at field level.

METHODS: This field operational research study was implemented using mixed methodology in Pathanamthitta municipality area, Kerala from October 2020 to July 2021

RESULTS: Baseline survey of 4782 elderly people in the study area was conducted and 2346 (49.1%) of them had access to smart phone facility. Among them, 1257 (53.5%) were covered under “Field Vayoraksha Campaign” using intersectoral coordination and community participation. A total of 750 elderly people (59.6%) downloaded the application and among them, 452 (60.3%) used the services of Vayoraksha. Needs were registered by 56 (12.3%) elderly of which 46 (82.1%) were medical needs. More than 70% of the needs were met through Vayoraksha field network under local PHC. Compliance to

quarantine was observed in 77.7 % of elderly. Among elderly who used Vayoraksha, 26 (5.7%) availed counselling services. Regular symptom surveillance was done among this group and only 12 (2.6%) of them became covid positive during study period. Thematic analysis of qualitative data has identified technology and field related challenges, trust issues, attitudinal and motivational barriers, social stigma and barriers due to resource constraints which needs to be addressed. Improved service delivery and opportunity to access and learn technology were the major benefits observed.

CONCLUSION: Results of this pilot study is promising with 60% of the elderly downloading and using Vayoraksha within short duration of time. This helped to improve health care delivery and compliance to quarantine among this vulnerable population. Technology assisted interventions can supplement the existing system for improved health care delivery among vulnerable population and has a great potential for scale up in near future.

KEY WORDS: M health, elderly, pandemic, health care delivery



A Cross-Sectional Study on Healthcare Utilisation Pattern of Elderly in Urban Population of Chennai

Dr. Costantia Dovita S, Dr. Kumar Caroline Priya, Dr. Sudharshini. S
MADRAS MEDICAL COLLEGE, CHENNAI

BACKGROUND: Health-care utilization is a complex behavioural phenomenon, primarily determined by the need for service (levels of illness, disability), the availability of services, and the resources available for providing and paying for service. The elderly population of India has been escalating exponentially increasing the health needs with significant consequences on health systems. Rapid adaptations in healthcare systems are needed to cater to the diverse health- needs of elderly. Therefore, it becomes crucial to determine the pattern of healthcare utilization of elderly and the factors influencing provider choice.

METHODS: A community based cross-sectional study was done among 285 elderly participants residing in Chennai, recruited through a multistage random sampling method. A pretested semi-structured questionnaire was used to collect data regarding socio-demographic characteristics, healthcare utilization for inpatient, outpatient, chronic diseases and immunization. Data was entered in Microsoft Excel and analyzed using SPSSv.16. Appropriate descriptive and analytical statistics were used.

RESULTS: The mean age of the participants was 68.6+6.7years and 58.2% were women.

The median number of healthcare visits in the past-year was 7 with 25.6% hospitalization rate. Despite perceived illness, 36.8% elderly reported irregular treatment and 9% of elderly did not utilize any health services. The utilization of government sector for inpatient, out-patient, chronic diseases were 46.6%, 17.9% and 45.6% respectively. The reasons for not availing services from government facilities were long-waiting (43.6%), dissatisfied treatment (30%), unavailability of services (17.3%), inconvenient timing (6.4%) and distance (2.7%). Education and economic independence of elderly were significantly associated with the choice of healthcare provider.

CONCLUSION: Healthcare utilization was high among elderly and preferentially from private sector. Despite free health-services in government facilities, factors ranging from long-waiting to increased distance impeded its utilization. Education and economic independence of elderly influenced provider choices. Community- based-approach and elderly-friendly public health facilities might increase utilization and aid in equitable healthcare delivery systems.

KEYWORDS: Elderly, healthcare utilization, urban.

Reasons For Preference of Spectacles Over Contact Lenses and Refractive Surgery in People with Refractive Errors

N. Prasad, Dr. Z.H. Fathima Shifana, K. Sai Prasanth, J.D. Ragul Raj, R.A. Praveen, S. Sabarinath, Dr. R. Tamilarasi Prof. Dr. P. Seenivasan
GOVERNMENT STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Refractive errors are the most common vision problem and prove to be a significant health issue. There are several methods for correction of refractive errors including spectacles, contact lenses and surgical correction. Even well-educated people who are aware of contact lenses and surgery, most people opt for spectacles. Our study aimed to determine the reasons for preference of spectacles over contact lenses and surgery in people with refractive errors.

METHODS: This was a cross sectional study conducted among a sample size of 206 people with refractive errors at Sanjeevarayanpet, Chennai in June-September 2022. Data were collected through a questionnaire by Epicollect and analyzed using SPSS 16.

RESULTS: Most participants of this study complained of hypermetropia (65%). The most preferred correction method was spectacles (92.7%), among which 47.1% found spectacles comfortable due to ease of use. 70.4% were aware of contact lenses and 27.6% of them

were willing to use it. The remaining refused because of difficulty in handling (43%). 63.1% were aware of refractive surgeries and 38.5% of them were willing to undergo it. The remaining refused because of fear of complications (58.7%). Out of 21.9% and 22.8% of the people who refused contact lens and surgery because of its expense, 21.4% and 19% of them were willing to opt for the respective correction method if done free of cost.

CONCLUSION: Though, majority of the people were aware of contact lenses and surgery, the results showed that they were not willing to choose them because of difficulty in handling and fear of complication, respectively, which forced them to opt for spectacles. We suggest that proper demonstration regarding use of contact lenses and spreading awareness about refractive surgery by means of pamphlets can be done, and initiatives can be taken to make such services accessible and affordable.

KEYWORDS: Refractive error, Spectacles, Contact lens, Refractive correction surgery.

Estimating The Universal Health Coverage - Service Coverage Index of Tamilnadu Using The Available Trace Indicators

Dr. Preetha R

SRI RAMACHANDRA INSTITUTE OF HIGHER EDUCATION AND RESEARCH, CHENNAI.

BACKGROUND: The 2030 SDG set target of enabling the Universal Health Coverage in all countries. SDG target of Universal Health Coverage can be monitored using an indicator which assess the essential health services covered.

METHODS: The UHC Service Coverage Index is the average coverage of essential health services based on the tracer interventions. The indicator is an index presented as a scale from 0 to 100. The 14 trace indicators are selected based on the tracer interventions like Reproductive, maternal and newborn health, infectious diseases, non-communicable diseases and service capacity. The secondary data are collected for the trace indicators from the open-source government databases. The geometric mean of these indicators was calculated to arrive at the index.

RESULTS: The Service Coverage Index is presented in a scale as 0 to 100, the higher the score is better the performance. The value nearer to 100 suggests the meeting of the SDG target. The Service coverage Index is calculated as 59.

CONCLUSION: The index can be useful in determining the health services covered in each of the interventions, which in turn helps to bridge the gap between availability and the accessibility of health services. The target of Universal Health Coverage of enabling health services to all can be achieved by bridging this gap.

KEYWORDS: Universal Health Coverage, Service Coverage Index, Tracer indicators, SDG goal.

Description and Evaluation of Hub & Spoke Component of Uhc program by District Public Health Laboratory, Thanjavur District, Tamil Nadu, January to September, 2022

V.Gurunathan, Dr. Namasivayam, Dr. Adalarasi and S.Bala

INTRODUCTION: Hub and spoke component of Universal Health Coverage Program implemented in all Districts in Tamil Nadu for Screening of communicable Diseases. In Thanjavur District totally 77 Primary Health Centres including block PHC's, Urban PHC's. This is first evaluation of Hub and spoke component of UHC Program in Thanjavur District. We aimed to describe the Hub & spoke component of UHC Program in Thanjavur District and evaluate the effectiveness of Hub and spoke in preventing communicable diseases by DPHL of Thanjavur.

METHODS: Describe the program as per UHC guidelines of the program, and DPHL Thanjavur data collected from IHIP – L form evaluated for Jan-2022 to Sept 2022. Data analyzed in terms of month wise and block wise.

RESULT: In Thanjavur District, 55 additional PHC's send their samples to 14 block PHC's. All 14 block PHC's send the samples to DPHL Thanjavur located in District Govt. Head Quarters Hospital at Kumbakonam. All 8 Urban

PHC's send the samples to DPHL Thanjavur. Amount sanctioned for sample transporter @ Rs.125/per day (8*125 = Rs1000), Minimum 2 visits/week (i.e Tuesday and Friday). In 2022, January –March DPHL received serum samples from 6 blocks only including Kumbakonam Corporation. April –June 2022 DPHL received 9 blocks Samples, July- September 2022 all Public health facilities including Thanjavur corporation, Kumbakonam Corporation and Pattukottai municipality, send the samples to DPHL. Totally 2971 samples received by DPHL. 6070 tests performed by DPHL. 224 (3.7%) samples were positive confirmed. Highest Performance for sample collections are Kumbakonam Corporation, Kumbakonam, and Thirupandhal blocks. Lowest Performance blocks are Thiruvonam, Madukkur, and Thanjavur Corporation

CONCLUSION: In Thanjavur District all the Public health Facilities involved in hub and Spoke of UHC program. The number of samples taken to be improved

KEY WORDS: Hub and Spoke, Universal Health Coverage, DPHL - Thanjavur



Assessing The Knowledge and Perceptions of The Role of Tuberculosis Champions in Bengaluru- A Mixed Methods Study

Dr. Iswarya P, Dr. Ranganath T S, Dr. Karthikeyan

BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE, BENGALURU,
 THEMATIC LEAD TUBERCULOSIS KARNATAKA HEALTH PROMOTION TRUST, BENGALURU

BACKGROUND: Tuberculosis (TB) is the tenth global cause of death. As per the Global TB Report 2021, the estimated incidence of all forms of TB in India for the year 2020 was 188 per 100,000 population. According to India TB report 2022, Karnataka had reported 62,621 new cases. The National Strategic Plan for Tuberculosis Elimination (NSP) calls for a community-based approach as a key strategy. TB Champion is TB survivor trained with standard training curriculum, willing to work for TB elimination. Since this is still an unexplored area, this study is intended to assess the knowledge and about the perceptions of the role of TB Champions in the diagnosis, treatment and prevention of the disease.

METHODS: A pilot study was conducted, and a semi-structured validated questionnaire was created to assess the knowledge. Convenient sampling method was used, study conducted between March to July 2022. An informed written consent was obtained, along with the socio-demographic details, the details of disease occurrence, treatment completion,

mode of training was collected . Following which the perceptions of the TB champions about their role was assessed by 3 focused group discussions comprising of 11, 10,13 participants in each group respectively which was recorded, transcribed and analyzed.

RESULTS: Out of 34 participants, 52% were males, 64% had knowledge on the route, mode of spread of disease, 78% of the participants had knowledge regarding Nikshay Poshan Yojana. In the focused group discussions, the main suggestions was provision of identity cards for the TB champions from Government, compensatory wages, frequent Information Education Communication (IEC) activities.

CONCLUSION: The present study highlights that recognizing the TB champions, provision of compensatory wages and a nodal contact person for guiding in treatment and diagnosis can help their active participation for Tuberculosis elimination.

KEYWORDS: Tuberculosis, TB champions, Knowledge, perception

Pattern of Utilization and Determinants of Urban Polyclinic Services Among Slum Dwellers In Greater Chennai Corporation, Tamil Nadu: A Community Based Cross-Sectional Study

Vinodhraj S, Karthik R. C, Vikram.A, Ezhilvanan M
 TAGORE MEDICAL COLLEGE & HOSPITAL, CHENNAI

BACKGROUND: As per 2011 census 31.6% of total population dwells in urban area and the expected rise will be by 2036. The policies so far focused on rural and tribal areas on improving access to health services. The urban poor were being overlooked and as a result their ill health numbers were growing daily. National Urban Health Mission aimed to address the health concern of the vulnerable group by establishing polyclinics in all corporations including Greater Chennai Corporation (GCC) and municipalities in Tamil Nadu. Does polyclinics in GCC address the need for specialty consultations for the urban poor in slums? To answer the above questions, this study is planned to find out the pattern and determinants of utilization of polyclinic services by slum dwellers in Greater Chennai Corporation.

OBJECTIVES:

1. To assess the Pattern of utilization of polyclinic services among the slum dwellers in Greater Chennai Corporation.
2. To find out the association between influencing factors and utilization of polyclinic services in Greater Chennai Corporation.

METHODS: A community based cross sectional study was performed in a sample of

500 Households of GCC selected by Multistage stratified random sampling method during the period from March 2021 to April 2022 with a semi-structured questionnaire to collect the details on demographic, health seeking behaviour and performance of polyclinic services in comparing to government hospitals and private hospitals previously visited by the study participants. Linear logistic regression and chi square test was performed using SPSS 21.

RESULTS: The study participants residing in central region (38.6%) of GCC and in the age group of 40 – 59 years (38.6%) made more return visits. Family income, marital status and educational qualification of the people were found to be associated with higher utilization of polyclinics. Less waiting time, increased patient doctor interaction time, perception of better performance of doctor, prescribing effective drugs were the factors influenced the higher utilization of polyclinic services in comparing to government hospitals while study participants who perceived better (48.4%) and equal (40.2%) performance of doctors in polyclinic comparing to private clinics have utilized polyclinic services with more return visits.

KEY WORDS: Polyclinics, Utilization of health facilities.

Identification of The Health Problems and Barriers Faced In Accessing Healthcare Among Transgenders of Bengaluru- A Qualitative Study

Dr. Iswarya P, Dr. Ranganath T S, Dr. Riya George
 BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE, KARNATAKA

BACKGROUND: According to the World Health Organization (WHO), 0.3-0.5% of the world population identify themselves as transgenders per 2011 Census, in India there are 4.88 Lakh transgender people, of which 20,266 are from Karnataka. Transgender population are the most exposed to violence, harassment, ill-treatment till date and there is lot of existing literature on the targeted interventions for protection from Sexually Transmitted diseases, this study was conducted to identify the other health problems, health needs and barriers for accessing the health care services among the transgenders.

METHODS: The study participants were selected by non-probability snowball sampling technique and a Community Body Organization (CBO) SAMARA was targeted to reach the specific group of the population. The socio-demographic details of the study participants were collected. After obtaining the consent a Focused Group Discussion was conducted among the 26 participants in two groups, recorded and analyzed.

RESULTS: Out of the 26 study participants, the mean age of the transgender women were 28 ± 6.2 years, 45% (n=12) were educated and 58% (n=15) were employed. The major problems faced by them was depression, genital tract infections, anxiety and the main barrier in not accessing the healthcare is non-availability of identity cards, financial issues and inaccessible to use the schemes provided by the government. The results obtained are preliminary.

CONCLUSION: This study gives a valuable insight into the health problems of the transgenders of which depression is a major component. Even though there are a lot of schemes provided by the State and the Central governments, also legal services, there still exists unequal accessibility to services which is a barrier for the transgenders to use the health care services.

KEYWORDS: Transgenders, Health needs, Barriers





Building The Future – School Based Primary Care Interventions

Dr. S. Kanchana,

Principal & Research Director Omayal Achi College of Nursing Chennai - 66

Schools constitute an important setting for promoting physical, social, cognitive, and mental health and establishing healthy behaviour, protect and support good nutrition in children and their families and communities. Schools are also considered to be an important context to promote active lifestyles. Primary care interventions early in life are the need of the hour when it comes to controlling the rising incidence of communicable and non-communicable diseases (NCDs). WHO has issued guidelines towards health promotional initiatives at schools as a part of Global School Health Initiative, and the Government of India has directed many policies and programs to

integrate health deep within the school activities. School Health Promotion is an international need with programmes implementing across continents due to numerous documented benefits not only limited to just the individuals but to the community and country as a whole. Simple teachings like hand hygiene have shown to reduce the incidence diarrhea by more than 50% amongst children, thus raising an urgent need for school based primary care interventions for building a health future. Models for health promotion at schools that is replicable, sustainable, and can be modified to the local needs as well are the need of the hour for building a healthy young population.



Mixed Research Approach Study on Well-Being Status of Breast Cancer Survivors

Dr. Shankar Shanmugam Rajendran, Mr. Marudan Anbalagan.

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

ABSTRACT: Breast cancer survivors perceive more number of needs for their survival after appropriate treatment. Well-being is also a need for them. Well-being is a state of awareness of self in physical, psychological, and social functioning positively.

OBJECTIVES:

1. To assess breast cancer survivors' well-being status and find their association with the selected bio socio- demographic variables.
2. To explore the well-being experiences among breast cancer survivors.

METHODOLOGY: A concurrent triangulation mixed-method design was used with a convenient and purposive sampling technique among breast cancer survivors attending Medical Oncology OPD. Well-being scale (WeBS) were used to elicit data quantitatively and semi-structured questionnaires in qualitative aspects.

RESULTS: The overall well-being score was 66.37% (high well-being status), and 33.33% had low well-being status. The domain wise score contributes to high Eudaimonic well-being and low hedonic well-being, respectively. The qualitative core themes that evolved were fear, low self-esteem, loneliness, financial crisis and family reinforcement.

CONCLUSION : This study highlights the various aspects of well-being status. The health professional should address the need and problems in these aspects. This address will improve the well-being status of women undergoing breast cancer treatment. Therefore a high well-being status will lead to positive functioning in life situations.

KEYWORDS: Breast cancer survivors, Concurrent triangulation design, Eudaimonic well-being, Hedonic well-being.

A Cross Sectional Study on Sleep Quality, Fatigue and Medication adherence among Breast Cancer Survivors

Dr. Shankar Shanmugam Rajendran, Mr. Kannan Kasinathan

ABSTRACT: The cancer survival journey starts for the person at the time of diagnosis and lasts until the end of life, with adverse effects on normal activities. Breast cancer mortality is strongly associated with poor sleep. Fatigation and decreased appetite are the hallmarks of cachexia in terminally ill patients. Inadequate medication adherence may cause alterations in risk-benefit ratios.

AIM: To assess the sleep quality, fatigue, and medication adherence among breast cancer survivors and to find their association with the selected demographic variables.

METHODS: This was a descriptive cross-sectional analysis involving 60 samples of Out Patient Department medical oncology using a convenient sampling technique and the study duration was one week. Pittsburgh sleep quality index scale, Perform questionnaire, Medication adherence rating scale were used to assess the patients.

RESULTS: The study concluded that 61.67% of the cancer survivors were disordered sleepers, 45.00% of the cancer survivors were having low fatigue score and 71.67% of the breast cancer survivors were having good medication adherence score. There was a strong positive equal correlation between the Sleep Quality Index score and the Fatigue score, which indicates that the quality of sleep raises the fatigue score.

CONCLUSION: Clients suffering with breast cancer should be assessed for sleep quality, which directly helps to reduce the fatigue level. Evidence-based practice interventions like exercises, cognitive behavior therapy, yoga, and aerobic exercises could help the patient to have adequate sleep.

KEYWORDS: Breast cancer, Fatigue, Medication adherence, Sleep Quality, Survivors.

Evaluate the Effectiveness of Structured teaching program on knowledge and attitude regarding Breast cancer among the School teachers in selected schools at Madurai district

Mrs. P. Priyanka

V.V.VANNIAPERUMAL NURSING COLLEGE FOR WOMEN, VIRUDHUNAGAR.

BACKGROUND OF THE STUDY: Breast Cancer is the most common cancer among women in worldwide and the second most common cancer overall. At present it is leading cause of cancer death in less developed countries and the second leading cause of cancer death is in American women exceeded only by lung cancer. In India million new cases being reported every year, and cancer seems to be tightening its grip. In the year of 2015 there were 115000 new cases in India and 458000 deaths occurred due to the disease. In these 39 – 42 % of breast cancer cases were in the localized stage in India. Experts says that the incidence of the killer disease is expected to rise fivefold by 2025.

METHODS: Experimental research using one group pre-test, post-test design was conducted among 60 school teachers who were selected using probability simple random sampling technique. A structured questionnaire was used to collect data. A planned teaching programme

was implemented which covered aspects on breast cancer.

RESULTS: The collected data were tabulated, analyzed and interrupted by using descriptive and inferential statistics and the findings shows that the majority 48 (80%) had adequate knowledge and 12 (20%) had moderately adequate knowledge and 38 (63.3%) had positive attitude and 22 (36.6%) had neutral attitude.

CONCLUSION: This study concludes that structured teaching programme plays a vital role in increasing the knowledge and attitude level among teachers on breast cancer. The investigator assures that, every school teachers who have been taken part in this study will perform a greater part in helping their students, family members and friends.

KEY WORDS: Breast Cancer, Knowledge, Planned teaching program, Teachers.

Knowledge and level of practice on Menopause among Post-Menopausal women in a Selected Community at Coimbatore District

Mrs. I. Karpagalakshmi

V.V.VANNIAPERUMAL NURSING COLLEGE FOR WOMEN, VIRUDHUNAGAR DISTRICT.

BACKGROUND: The total number of Indian women aged 50 years and over will increase from 95 million in 2010 to 168 million in 2030. Hence, menopausal health demand is a priority in the Indian scenario due to the growing population of menopausal women. With increasing life expectancy, women spend 1/3rd of life in this phase. Menopausal symptoms, though well tolerated by some women, may be particularly troublesome in others. Severe symptoms compromise overall quality of life for those experiencing them. There is under-reporting of symptoms among Indian women due to socio cultural factors. So the current study was conducted to know the Knowledge and level of practice on Menopause among Post-Menopausal women in a Selected Community at Coimbatore District

METHODS: The study adopted Non-Experimental Design. 30 menopausal women were selected from a community as samples through Non probability purposive sampling technique. The data were collected by using following tools:1) Demographic data and 2) A Structured Questionnaire to assess the knowledge and practice of menopause

RESULTS: Majority of the samples 23(76.7%) had adequate knowledge, and 7(23.3%) had moderately adequate knowledge regarding menopause. 25(83.3%) had average level of practice and remaining 5(16.7%) samples had good practice on menopause. A weak positive correlation was found between menopause knowledge and attitude.

CONCLUSION: Majority of the post-menopausal women had adequate level of knowledge and practice on menopause and had a positive correlation between knowledge and practice. Nurses can play a major role in increasing the knowledge and practice by developing an accurate and appropriate programme to promote post-menopausal women's health during menopausal years. This can be replicated on larger sample for generalization and in various setting using different sampling techniques for different population.

KEYWORDS: Post menopause is the time after menopause, when a woman hasn't experienced a period for over a year.

Effectiveness of Education on Physical Health Hazards on Excessive Usage of Electronic Gadgets Among Adolescents

Pappu Mariammal, Mrs. T.Ramani Bai

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION: Young people around the world they spend a lot of time using electronic devices such as computers, laptops, Tab, video game players, and mobile phones. This is due to excessive using of electronic gadgets they affect their body parts like eyes, ears, neck, head, back and fingers and suffer not only physically but also mentally. The study's goal was to assess the knowledge of physical health hazards includes neck pain, eye changes, swelling in fingers on excessive usage of electronic gadgets.

METHODS: It was a descriptive study and sample of 60 adolescents were selected by purposive sampling technique. The study was conducted at urban area choolai, in Chennai. The physical hazards knowledge (PASS) was used to measure.

RESULTS: Among 60 adolescents none of them were adequate knowledge. 13.33% had moderate knowledge and 86.67% had

inadequate knowledge. The finding of the study revealed that the Pre-test and Post-test level of knowledge of adolescents are improved their knowledge score from 18 to 60 after the administration of intervention. The Pre-test and Post-test level of adolescents knowledge are improved their score from 13.335% to 86.67% after the nurse led education. The study proved that the nurse led education improved that the adolescents knowledge on physical health hazards of excessive usage of electronics gadgets was significantly effective ($P \leq 0.001$). The study revealed that the urban adolescents session was very effective in improving regarding the knowledge of physical health hazards of excessive usage of electronic gadgets.

KEYWORDS: Adolescents, Electronic gadgets, Excessive usage, Physical health hazards

Impact of Sleeplessness on Stress And Well-Being Among Breast Cancer Survivors

Dr. R Shankar Shanmugam, N.Vanitha, A.Nirmala, R.Revathi.
 MADRAS MEDICAL COLLEGE, MAHER(DU)

INTRODUCTION: Breast cancer is a life-threatening disease, contributing to 18 million cases worldwide. As a result of their exhaustion and stress, breast cancer survivors reported various degrees of sleep disturbances. Stress, sleeplessness, and poor wellbeing are common problems among breast cancer survivors, all of which have a severe influence on their quality of life. The goal of this study was to ascertain the effect of sleep deprivation on stress and well-being among breast cancer survivors undergoing treatment at a tertiary care hospital in southern india.

METHODS: A cross-sectional descriptive study was done among 150 breast cancer survivors using a purposive sampling technique.

RESULTS: The majority of the breast cancer survivors exhibited poor sleep quality (62%), with a higher level of stress (77.33%) and a 66.69% well-being score. There is a

moderately positive relationship between sleep and stress, as well as sleep and well-being ($r=0.26$, $P \leq 0.05$). It also showed that when stress increases, sleep quality decreases, and when sleep was disturbed, well-being became decreased. Nurses should provide appropriate interventions that increase sleep quality, which in turn reduces stress and improves overall well-being. Intensive nurse led counselling and support may aid women with breast cancer in controlling their stress and enhancing their sleep, so improving their quality of life. Breast cancer survivors experienced high levels of stress, which had a detrimental effect on their health. Appropriate measures are required to effectively manage stress. It is vital to establish nurse-led breast cancer survivorship clinics in both clinical and community settings to address the perceived needs of breast cancer survivors.

KEYWORDS: Breast Cancer Survivors, Perceived Stress, Quality of Sleep, Wellbeing.

Knowledge regarding home management of common ailments among mothers of Under five children in a selected area of Virudhunagar district

Mrs. I. Karpagalakshmi

V.VANNIAPERUMAL NURSING COLLEGE FOR WOMEN, VIRUDHUNAGAR DISTRICT.

BACKGROUND: India has a large living tradition in natural products. Nature has contributed significantly to the health of millions in our subcontinent and outside. WHO estimates that 4/5th of the world's population uses nature for a substantial part of its medicinal and health requirements. Mothers knowledge and practices in managing minor illness is very important in order to ensure safe and effective ways of managing minor illnesses and decrease complications and hospitalization

METHODS: Descriptive research design was adopted, purposive sampling technique was used to select 50 mothers of under 5 children. Samples were interviewed using structured questionnaire which contained 3 sections to assess the knowledge and practice regarding minor ailments (Diarrhoea, fever and ARI). The data was collected, organized, tabulated and analyzed using of both descriptive and inferential statistics.

RESULTS: It was found that among 50 mothers, 7 mothers had adequate knowledge

,35 mothers had moderately adequate and 11 mothers had inadequate knowledge regarding home management of common ailments. It was found that almost all the subjects seek medical attention immediately for Diarrhea, fever and ARI. None of the subjects get medicines from medical shop without doctor's prescription and none of the subjects seek alternative systems of medicine for the treatment of diarrhea, fever and ARI. There was a statistically significant association found between level of knowledge and age of the mother, types of the family and source of information

CONCLUSION: The finding of the study shows that the least mothers of under five children were practicing the home remedies and the majority of them were practicing pharmacological management for the minor ailments

KEYWORDS: Knowledge, Minor ailments, Practice.

A Quasi Experimental Study To Evaluate The Effectiveness of Planned Teaching Program on Knowledge Regarding The Food Hygiene And Habits Among The College Girls in A Selected Nursing College at Madurai

Mrs. P. Priyanka

V.V.VANNIYAPERUMAL NURSING COLLEGE FOR WOMEN, VIRUDHUNAGAR.

BACKGROUND : Food hygiene and safety usually refer to contamination with 'microorganisms' or 'microbes'; whereas in communicable diseases, the term 'infectious agents' is preferred. All over the world people are seriously affected every day by diseases that are caused by consuming unhygienic and unsafe food. We have to give due emphasis to good hygienic practice to prevent and control food borne diseases.

METHODS: The study adopted an experimental research using one group pre-test post-test design. Samples of 36 college students from C.S.I.Jeyaraj Annapackiam College Of Nursing, Madurai were selected through probability random sampling technique. A self structured questionnaire on knowledge regarding food hygiene was used to collect data. The planned teaching program

was conducted for 30 minutes which covered various aspects on food hygiene.

RESULTS: Shows that all samples 36 (100%) had inadequate knowledge regarding food hygiene and habits in pre test. In post test, 4 (11.1%) had adequate knowledge and 24 (66.6%) had moderate knowledge and 8 (22.2%) had inadequate knowledge regarding food hygiene and habits

CONCLUSION: Majority of the samples had a significant increase in post test knowledge. This study can be replicated on larger sample for generalization and in various setting using different sampling techniques for different population.

KEY WORDS: College students, Food hygiene, Knowledge, Planned teaching program.

Impact of Nurse Led Life Style Modification on Stress, Drug Compliance and Quality of Life Among Nephrotic Syndrome Children

G. Vijaya , Dr. Shankar Shanmugam, Mrs. Seetharaman Vijayalakshmi.

COLLEGE OF NURSING, MADRAS MEDICAL COLLEGE

INTRODUCTION: Nephrotic syndrome is a group of symptoms that indicates improper functioning of kidneys. The incidence of childhood idiopathic nephrotic syndrome (INS) is estimated at 1.52 – 16/100,000 children per year. The practice of non-adherence may cause a treatment failure in paediatric chronic conditions. Addressing identified needs during patient care will not only improve clinical outcome but ultimately the quality of life.. The aim of the study is to assess the impact of nurse led life style modification on stress, drug compliance and quality of life among nephrotic syndrome children admitted at selected paediatric tertiary care unit in Chennai.

METHOD: The study was conducted with 60 samples of Nephrotic syndrome children by quantitative approach using Pre experimental one group pre test and post test design. Sample selection was done by convenient sampling technique method. The participants were

assessed by using structured standardized questionnaire developed by the investigator. After the pre-test, nurse led lifestyle modification on stress, drug compliance and quality of life were given regarding reduction of stress, adherence of medication and improvement in quality of life among children with nephrotic syndrome. After 7 days, post test was conducted by using same tool.

RESULTS: The study findings revealed the reduction of stress score from 28.55 to 1.47, improvement in their Drug compliance score from 5.22 to 7.67 ,and QOL score from 68.55 to 87.87 after the administration of intervention. The Level of stress, drug compliance and quality of life score between pre-test and post-test was calculated using Generalized McNemar's chi-square test.

KEY WORDS: Child with Nephrotic syndrome, Drug compliance, Quality of life, Stress.

'A comparative study to assess the effectiveness of kadukkai and Luke warm water wash on abnormal vaginal discharge among reproductive age women residing at Samayanallur, Madurai

Mrs. V. Gomathy Priya

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION : Women are the nucleus of the society. 19 % of total population constitutes, 15-45 years of women in the child bearing age group. Indian System of Medicine can play a vital role in achieving in objectives of Reproductive Child Health Programme implemented by the Ministry of Health and Family Welfare.

OBJECTIVES OF THE STUDY :

1. To assess the abnormal vaginal discharge among reproductive age women.
2. To evaluate the effectiveness of kadukkai water on abnormal vaginal discharge among reproductive age women.
3. To evaluate the effectiveness of lukewarm water on abnormal vaginal discharge
4. To assess the effectiveness of kadukkai and lukewarm water wash of pre and post test of on abnormal vaginal discharge among reproductive age women.
5. To compare the effectiveness of kadukkai water and Luke warm water wash on abnormal vaginal discharge among reproductive age women.
6. To associate the abnormal vaginal discharge among reproductive age women in the experimental group with selected demographic variables.

METHODOLOGY : Research Design is selected for true experimental study design.

Systematic random sampling technique was used to select this samples. The tool used for data collection was structure questionnaire. The study was conducted with 30 samples as experimental group for "Kadukkai Water Wash" and 30 samples as lukewarm Water Wash group for a period of four weeks.

FINDINGS: The significant findings was assessed by using split half and test retest method. Correlation coefficient value of reliability is 0.81. The study results are shown that pre and post test assessment level of burning sensation, Vaginal itching, Low back pain is improved which is significant $2=46.6$ $P=0.001^{***}DF=3$ significant, hydrogen ion concentration is $2=52$. $5P=0.001^{***}DF=2$ which is significant. Kadukkai water $t=27.51$, Significant, Luke warm water $t=8.84$ post test effectiveness $t=7.76$. Significant Mean score effectiveness of kadukkai water is 57.9%, and Luke warm water wash is 31.4% wash. The effectiveness of kadukkai water is 26.5%. is better than the lukewarm water wash.

CONCLUSION: By these interventions, we can provide the relevant information on the subject and clearing up the misconceptions the rural and urban community can understand locally available kadukkai water wash on abnormal vaginal discharge among reproductive age women is the best possible treatment option.

Lactose Intolerance Study

Dr. H. Jasmine Sheela

MOUNT ZION COLLEGE OF NURSING

INTRODUCTION- Diarrhea is the second leading cause of deaths among under five children more than 10 million children die each year from diarrhea.

AIM AND OBJECTIVE- The first objective of the study was to determine the incidence of secondary lactose intolerance among children. 2. To evaluate the effect of lactose free Risooy feeds in controlling diarrhea and controlling dehydration among children.

METHODS- A quasi experimental study based on 'before and after', control group design was used. A total of 120 children aged between 4 months to 12 months were taken as study sample, experimental group (n=60) and control group (n=60) through purposive sampling technique. Prior to this, the incidence of secondary lactose intolerance was assessed, totally 618 children having diarrhea for 3 and

more than 3 days were assessed between the age group of 4-12 months. The effectiveness of lactose free Risooy feeds were assessed by administering lactose free Risooy feeds to children among experimental group for 3 days.

RESULTS- A total number of 618 children with diarrhea for 3 and more than three days were screened for presence of reducing sugar in stool and stool pH, among which (56.63%) 350 children between the age of 4 to 12 months were identified to have secondary lactose intolerance. The scores of Diarrheal status and Hydration status were compared within the group by paired 't' test and between group by independent 't' tests. After the introduction of lactose free RISOY feeds among experimental group. In Post-test I, the total mean post test score of hydration status in all aspects in experimental group is 81.62 is more than the control group mean score 77.93.

Life Challenges And Impact of Nurse - Initiated Mother's Empowerment Session on Ostomy Care

M. Mariammal, Mrs. Seetharaman, Vijayalakshmi, Dr. R. Shankar Shanmugam
 COLLEGE OF NURSING, MADRAS MEDICAL COLLEGE

INTRODUCTION: Anorectal malformation, imperforate anus, blunt injury and cancer colon are some abnormalities of the rectum and anus. Ostomy in infancy and childhood is usually performed for benign diseases and in temporary nature. To manage the situation, parents need selected skills to manage the ostomy in children. During ostomy care, the nurses play a vital role and when they acknowledge, the mothers know how to take care of their children.

METHOD: This study was conducted with 30 mothers in mixed approach and the study design is Exploratory. Non –Probability purposive sampling technique was applied in qualitative study and Convenience sampling for quantitative design. On the first day, qualitative analysis was conducted to the mothers of child with Ostomy, using unstructured interview schedule and semi structured questionnaire for quantitative design. 5 mothers were selected from this same group, in-depth interview was conducted and recorded. All the interviews were audiotaped, transcribed and verbatim was

analysed & coded done. Theme and sub theme were emerged.

RESULT: In Qualitative study analysis themes evolved were as, Initial reaction, financial and emotional experience. In Quantitative study, findings revealed that 70% of mothers of children with ostomy had life challenges. 63.3% of mothers had inadequate knowledge, after intervention, 73.3% had adequate knowledge. The participants verbalised the effectiveness of nurse-initiated mothers empowerment session was very useful in their caretaking process. Hence, Nurse initiated mother's empowerment session is significantly effective (p value is <0.001) both subjectively & objectively in holistic manner.

CONCLUSION: This result revealed that nurse-initiated intervention was effective in improving the knowledge of mothers who take care of their children with colostomy.

KEYWORDS: Child with Ostomy Life challenges, Nurse initiated mother's empowerment session.

Impact of Women Empowerment Session on Child Safety

S. Nirmalraj, Dr. R. Shankar Shanmugam, Seetharaman Vijayalakshmi

COLLEGE OF NURSING, MADRAS MEDICAL COLLEGE

BACKGROUND: Globally, an estimated 16,85,000 children under the age of under five years are killed by unintentional injuries. Nearly 7% of all deaths in India considering all age groups are accounted by injuries and nearly 10% of these deaths (1 out of 10 deaths) occur among under five children. The researcher felt that it is essential to emphasize awareness among women on Child safety and parent education are the key determinants in accidental injuries prevention. The aim of this study to find out the women empowerment on child safety among mothers of under five children.

MATERIAL AND METHODS: A quantitative study design was done among 70 mothers of under five children using a convenient sampling technique.

RESULT: The pretest level of knowledge score on child safety among mothers of under five children were found to be inadequate (60.0%) and unfavorable attitude (54.28%). The finding of the study revealed that from the Pre-test and Post-test level of knowledge and attitude of mothers are improved their knowledge score from 13.60 to 20.29 and their attitude score from 33.71 to 51.19 after the administration of intervention. The study proved that the nurse led women empowerment session improved on child safety measures was significantly very effective ($P \leq 0.001$) among mothers of under five children.

KEYWORDS: Child safety, Mothers, Under five children, Women empowerment

Prevalence of Perinatal Anxiety And Associated Risk Factors Among Birthing Mothers

Dr. R Shankar Shanmugam, R.Revathi, N. Vanitha, A. Nirmala

COLLEGE OF NURSING, MADRAS MEDICAL COLLEGE RESEARCH SCHOLAR, MAHER(DU)

INTRODUCTION: The era of a woman's pregnancy is one of enormous delight as well as great physical and mental stress. Evidence suggests that anxiety during pregnancy has an impact on the health of pregnant women and labour outcomes, such as preterm birth and prolonged labour, among many others. Anxiety during pregnancy differs from woman to woman. Nurses have a vital role in ruling out the risk group and to empower an appropriate support system to overcome the anxiety during the Perinatal period. The study's goal was to determine the prevalence of anxiety and factors that increase its risk.

METHODS: It was a descriptive study and sample of 375 women in the perinatal period were selected by convenient sampling technique. The study was conducted at Maternity Tertiary Hospital in Chennai-8. The Perinatal anxiety screening scale (PASS) was used to measure symptoms of perinatal anxiety.

RESULTS: Among 375 Perinatal mothers, 100% of them were experiencing anxiety. 29.1% had severe anxiety, 54.9% had mild to

moderate Anxiety and 16% had mild anxiety. The prevalence of anxiety among perinatal mothers was found to be 37.25% using PASS. Elderly mothers, less Education and less than 6 hours sleeping mothers had more anxiety. Natural conception and presence of Risk factors also increases the presence of anxiety. Perinatal time is a sensitive period for a considerable incidence of anxiety among mothers. Nurse-Midwife play a vital role in assessing the presence of anxiety and make appropriate remedial measures to alleviate it. Interventional studies are needed to prevent perinatal anxiety. Our study emphasizes there is a need to incorporate screening of perinatal anxiety and counselling them from day of conception to postnatal period. This study recommends that it is high time to incorporate mental health services, promoting yoga and encourage antenatal exercise to keep body and mind to balance each other

KEYWORDS: Associated Factors, Maternal Mental Health, Perinatal Anxiety, Tertiary Hospital



Assess The Stigma, Belief, Cultural Practices Towards Covid-19 Vaccination Among Non – Vaccinated Individuals

S. Gowsalya, T. Ramani Bai

INTRODUCTION : Globally over 526 million confirmed cases and over six million deaths have been reported on 29th may 2022. An infectious illness called Covid -19 is brought on by coronavirus that causes severe acute respiratory syndrome (SARS-CoV-2). In December 2019, Wuhan, China, reported the discovery of the first case. Since the disease's global spread, a pandemic has been ongoing. When people breathe in air contaminated by droplets and tiny airborne particles carrying the virus, Covid-19 is transmitted. The Aim of the study to assess the stigma, belief and cultural practices towards covid-19 vaccination among non-vaccinated individuals.

MATERIAL AND METHODS: A quantitative descriptive study design was done among 60 non – vaccinated individuals using a convenient sampling technique with Semi Structured questionnaire.

RESULT : The finding of the study revealed that 56.67% of them are having high level of stigma score and 66.67% of them are having high level of belief score and 68.34% of them are having high level of practice score. The study revealed that stigma, belief and cultural practices regarding the COVID – 19 vaccine are widely prevalent among the peoples.

KEYWORDS : Belief, Cultural practices towards Covid -19 vaccinations, Stigma



Impact of Nurse -Led Intervention on Cervical Cancer Session Among Reproductive Age Women

Sowbaghya Jose, T. Ramani Bai

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION: Cervical cancer is the second most prevalent cancer among women in Tamil Nadu, particularly in rural regions with an incidence of 7,418 new cases per year. Today, cervical cancer has claimed the lives of more women than child birth does. Nearly all cases of cervical cancer is attributed to be caused by HPV infection. Despite of the National Guidelines, the screening coverage in India is appalling low. The researcher felt that there is a need to raise awareness among women to undergo regular screening as the progression of cervical cancer is gradually slow and if pre-cancerous lesions identified at an earlier stage by screening methods like VIA VILI and Pap smear, can be easily treatable. The aim of the study is to assess the knowledge and attitude among women regarding cervical cancer.

MATERIALS AND METHODS: A quantitative research study design was done among 60 reproductive age women using a convenient sampling technique with semi-structured knowledge and attitude questionnaire.

RESULTS : The pre test and post test level of knowledge gain score has improved from 8.77 to 15.60 and attitude gain score from 22.85 to 38.45 after the administration of intervention which is statistically significant at $P < 0.001$. Thus the study proved that the nurse-led intervention on cervical cancer session was effective in improving the knowledge and attitude of the women.

KEYWORDS: Cervical Cancer Session, Nurse-Led Intervention, Reproductive Age Women

Effectiveness of Yoga Therapy on Level of Academic Stress Among The School Children, Madurai, 2016

Mrs. T. Sathya

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Stress is seen in about 80% of school going children and adolescents worldwide. The academic stress experienced by the students are usually due to poor academic performance, diminished peer popularity, fear of school failure, maintaining inter personal relationship with peer / teachers etc. This in turn causes reduction in motivation, hinder academic achievement, and leads to increased dropout rates. Academic stress has also been shown to negatively impact mental health in students.

AIM: To evaluate the effectiveness of yoga therapy on academic stress among the adolescent school children.

METHODS: A true experimental research design was used to select the subjects by simple random sampling technique. Pre and post test was done by Modified Academic stress scale. After obtaining consent from the subjects, Yoga therapy was given which includes Asana

for 30min, breathing exercise for 5 min and relaxation for 5 min per day for 4 weeks by certified researcher.

RESULT: The findings revealed the pre and post test of mean, SD (60.93, SD=17.95, m=34.07, SD=9.63) respectively $p=0.001$. This shows the high significant reduction in academic stress. Chi-square analysis revealed that there was a significant association between the post test level of academic stress and age ($c^2=5.40$), educational status of father ($c^2=9.28$), nuclear family ($c^2=6.13$), and Recreation ($c^2=3.96$).

CONCLUSION: The study findings statistically proved that yoga therapy reduces the academic stress among the school children. Since yoga therapy is cost effective, non pharmacological and free from side effects it is highly feasible for effective use.

KEYWORDS: Academic stress, Yoga therapy.

Impact of Nurse Initiated Menstrual Hygiene Management Program and The Adolescent Girls Menstrual Experiences

P.N. Vidhya Lakshmi, Dr. R. Shankar Shanmugam, S. Vijayalakshmi
MADRAS MEDICAL COLLEGE

INTRODUCTION: Adolescent girls in India are a vulnerable group because they are often denied access to basic necessities like education and healthcare. Adolescence, which marks the passage from childhood to adulthood, is characterised by the child's growth and development. It is acknowledged as a unique time in a girl's life cycle that needs special consideration. This study aimed to find out the impact of menstrual hygiene management program on menstruation among early adolescents and their experience on menstruation

METHODOLOGY: It was a mixed approach (qualitative and quantitative) with study sample consist of 30 early adolescents with HIV including 5 qualitative samples who met the inclusion criteria .Sampling technique used for the study for qualitative was Purposive sampling and for quantitative study is convenience sampling. The period of the study for four weeks. Tools used for the data collection was unstructured interview schedule and knowledge and practice questionnaire constructed by investigator.

RESULTS: In qualitative aspect during pretest the participants expressed negative emotion towards menstruation. Themes and subthemes evolved as, FIRST EXPERIENCE(sub themes- A resenting emotion towards menarche experience, physical and emotional experience during menstruation, missing school during menstruation) ..In post test aspect, Themes evolved as IMPACT OF INTERVENTION (new learning, positive change in behavior). Nurse Initiated Menstrual Hygiene Management Program was very effective and also highlighted positive change in behavior which is evidenced by difference in pretest and post test level of knowledge and practice level among study participants. Hence the study was highly significant ($p < 0.001$) . The study was inferred that Nurse Initiate Menstrual Hygiene Management Program was the best teaching strategy in imparting knowledge regarding menstrual awareness in holistic manner.

KEYWORDS: Early adolescents, Human immunodeficiency virus, Menstrual hygiene.

A Mixed Study on Sleep and Fatigue Experiences Among Breast Cancer Survivors

Dr. Shankar Shanmugam Rajendran, Dr. D. Rajeswari

Worldwide, about 18 million new cancer cases were estimated in 2018, and of those, 11.6 percent constitutes breast cancer. Distinct symptoms of insomnia were evident among 79.6% of the women and persistent fatigue symptoms among 53.9% of Breast cancer survivors.

OBJECTIVES:

- To assess the quality of sleep and level of fatigue among breast cancer survivors.
- To examine the relationship between sleep quality and fatigue in breast cancer survivors.
- To associate the quality of sleep and fatigue with the selected bio socio demographic variables of the breast cancer survivors.
- To explore the sleep and fatigue experiences among the breast cancer survivors.

METHODOLOGY – A concurrent triangulation mixed-method research design was used, and convenient and purposive

sampling techniques were utilized to collect data from breast cancer survivors attending Medical Oncology OPD. Pittsburgh sleep quality index, and the Fatigue Severity Scale were used to elicit data quantitatively, and a semi-structured interview schedule were used to collect data in qualitative aspects.

RESULTS: Most participants (62%) had a low quality of sleep, and about 77.33% had a high fatigue level. There was a moderate positive correlation between sleep and fatigue. The themes that emerged in qualitative aspects were sleeplessness and fatigue.

CONCLUSION: It was concluded that breast cancer survivors experience a low quality of sleep and fatigue. It further recommends establishing a distinct nursing care approach to improving the holistic health of breast cancer survivors.

KEYWORDS: Breast cancer survivors, Concurrent triangulation, Fatigue, Quality of sleep

Nurse Led Intervention Module on Covid Appropriate Behaviour and Perceptual Modification Among Mothers of Children

K. Kalaivani, Mrs. Seetharaman Vijayalakshmi, Dr. R. Shankar Shanmugam.
 MADRAS MEDICAL COLLEGE

INTRODUCTION: The novel Coronaviruses that causes Covid 19 can be transmitted directly through human to human contact or indirectly through contaminated objects. Covid virus is dangerous for children and it can increase the mortality, because it can affect the lungs of children as it is immature. Education of mothers are very essential for prevention of child mortality and morbidity due to Covid19. The study's goal was to evaluate the effectiveness of nurse led intervention module on Covid appropriate behavior and perceptual modification among mothers of children.

METHODS: It was a quantitative study of True experimental Randomized control trial design and sample of 200 mothers of children were selected by simple random sampling technique. Semi structured knowledge questionnaire and Illness perception questionnaire was used to assess the knowledge of mothers about Covid appropriate behaviour and perceptual modification.

RESULT: The finding of the study revealed that, the statistical paired 't' implies that the difference in the pretest score of (Covid appropriate behaviour and perceptual modification 11.36,2.59) and post test score of (16.76, 4.29) were found statistically significance in experimental group with paired t test is, $p < 0.001$. There is a high significance in knowledge on Covid appropriate behaviour and perceptual modification among mothers of children, due to nurse led intervention.

CONCLUSION: This nurse led intervention module created the great awareness about Covid appropriate behaviour and perceptual modification among mothers of Children. The researcher's intervening of covid awareness intervention is most cost effective than actual management of children affected by covid infection.

KEYWORDS: Covid appropriate behaviour, Knowledge, Mothers of Children, Perceptual modification.

Comprehensive Primary Health Care (CPHC) Nurses as Trendsetters to Combat NCDs (The Modern Serial Killer)

Dr.S.Ani Grace Kalaimathi

One of today's greatest challenges in public health worldwide - and especially its key management from Primary Health Care (PHC) - is the growing burden of non-communicable diseases (NCDs). National Health Policy 2017 envisage establishment of Health and Wellness Centre (HWC) to provide comprehensive primary health care that is universal, free and closer to the community. To fulfill the aim, Health and Wellness Centre Program was launched in 2018.

The HWC would deliver an expanded range of services by providing a continuum of care for all illnesses in the community for effective implementation of Comprehensive Primary Health Care through HWCs. A key addition to the primary health team at the SHC-HWC, would be the Mid-level Health Provider (MLHP) who would be a Community Health Officer (CHO) - a Nurse (GNM or B.SC), trained and certified through IGNOU for a set of competencies in delivering public health and primary health care services.

Nurse led CPHC outcomes shall be, Enhanced accuracy of data collection on NCDs, Improved diabetes and cardiovascular disease monitoring and treatment, Enhanced community participation in exercise and nutrition programmes, Reduce the need for amputations. But a Nurse led CPHC Requires:

- A Political commitment
- A rethink of the ways nursing's potential can be mobilized,
- Education to empower the profession,
- Moving the profession in sufficient numbers into the community where the promotion, prevention and control of NCDs is best managed.
- With more than 20 million nurses around the world, effective utilization of this valuable resource can halt and reverse the progression of NCDs.



Nurse Empowerment through Regulations and Policies

Dr. S. Ani Grace Kalaimathi

Nurses and Midwives constitute the largest component of health work force and are often the first point of contact between the community and the health system^{1,2,3}. The need to strengthen nursing and midwifery has been reiterated in many reports and can be traced historically in recommendations by Bhole committee (1946), Mudaliar committee (1962), High Level Expert Group on Universal Health Coverage report (2012) and National Health Policy (2017).

The role and responsibilities of nurses and midwives has expanded rapidly in terms of the range of service delivery components. However, the involvement of nurses and midwives in

decision and policy making, establishment procedures, educational opportunities, remuneration, benefits and the nature and quality of training has not progressed at the same pace. This has an adverse impact on raising the profile of the nursing cadre and consequently on the quality of health care services provided by nursing professionals.

While there are opportunities, there are also threats that can hamper the progress of the nursing profession. The mushrooming of private training institutes of questionable quality, underperforming regulatory bodies, dominance of medical doctors, poor working conditions for nurses etc. will have a detrimental effect on raising the nursing profile.





Assessment of Empathy Among Undergraduate Students of Kakatiya Medical College in Warangal, Telangana

Dr. Bhavani R, Dr. Punam Kumari Jha
KAKATIYA MEDICAL COLLEGE, TELANGANA

BACKGROUND: Empathy is essentially a desirable quality among clinicians and can be developed during medical education. It is a crucial determinant of patient-physician communication and relation. Studies from outside India has shown that higher empathy is related to better patient outcome. But there are very few Indian studies on empathy among medical students. Hence this study aimed to assess the empathy level of medical students and its correlates.

METHODS: This is a cross sectional study conducted among undergraduate students of Kakatiya Medical College during July 2022. Total of 309 students were interviewed with semi structured questionnaire which includes career satisfaction, future career choice etc., Empathy was assessed using 20 item Jefferson Scale of Empathy Student version. Data were entered and analyzed using SPSS V 20. Descriptive statistics were used for age, gender and total score of empathy. Group comparisons were analyzed using t test and one-way ANOVA.

RESULTS: The mean empathy score was 100.20 ± 15.23 with range of 53 to 134.

Seventh semester students had higher score (103.27 ± 13.04) compared to third semester (101.47 ± 17.06) and interns (95.15 ± 14.42). The difference between the mean scores of the students was statistically significant ($p=0.000$). Female students had significantly higher empathy level than male students. Also, the students who have chosen the career by own had significantly higher scores than the students chosen by compulsion ($p=0.002$). Empathy level in students according to the future career (specialty) choice was not statistically significant ($p=0.738$).

CONCLUSION: Empathy level of medical students of our study were quite low when compared to other studies outside India. Empathy gets eroded once the students enter into internship. A longitudinal follow-up study would really help if decline in empathy is really true. The medical curriculum should give more focus to empathy and other humanistic values among medical students.

KEYWORDS: Empathy, Jefferson scale, medical students.

The Pattern of Antimicrobial Resistance of Microorganisms to Various Antibiotics From The Clinical Isolates Reported at Health Facility at Salem, Tamilnadu

Dr. S. Sangeetha, Dr. Prabakaran J

V.M.K.V. MEDICAL COLLEGE AND HOSPITALS, SALEM

BACKGROUND: Antibiotic resistance occurs when organism change in response to the use of these medicines. Antibiotic resistance leads to higher medical costs, poor treatment outcome, prolonged hospital stays, and increased mortality.

OBJECTIVES: To find out antimicrobial resistance (AMR) pattern from a clinical isolate in hospital attendees in Salem; To submit the prevalence of AMR to Hospital Antibiotic Stewardship for action.

MATERIALS/METHODS:

Study type: Retrospective-cross sectional study.

Study Settings: Tertiary hospital of Salem.

Study Population: Clinical isolates from OP and IP patients from VMKV medical college & Hospitals, Salem.

Sample Size: All clinical isolate for one year.

Data Collection: The report of antibiotic susceptibility testing collected in the format developed for data collection. The isolates, microorganism, antibiotics are stratified accordingly for data analysis. Ethical approval was obtained.

RESULTS: For E coli, all included drugs were given some form of resistance except imipenem (No Resistance-NR), Ampicillin 57.58% (High resistance (HR); meropenem 2.98%. Low resistance (LR) For pseudomonas resistance ranges from ciprofloxacin (25.37%) to chloramphenicol (37.68%) and no resistance for carbapenems and aminoglycosides. Klebsiella- All drugs were resistance; HR: Ampicillin (77.36%); LR: Nitrofurantoin 18.86%. Proteus was resistance to all drugs. Staphylococcus was highly resistance to nitrofurantoin. MRSA: resistance to all drugs, 100% resistance to cloxacillin, penicillin.

ENTEROCOCCUS: HR: Ampicillin; LR: nitrofurantoin

CONCLUSION: Antimicrobial resistance widely reported to most of commonly used drugs. So, it is wise to use them appropriately. AMR committee to sensitize providers and authorities to sensitize patients and communities on misuse of them.

KEY WORDS: AMR, Antimicrobial Resistance, Drug Resistance, Salem, Antibiotic Stewardship.

Functionalization of Carnosine Nanoclusters for Potential Therapeutic Application in Pulmonary Infections

Natarajan Saravanan, Nagarajan Usharani

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS, CHENNAI

BACKGROUND: The respiratory tract is the major site for the development of contactable ailments. The etiology this ailment indicates the accumulation of excessive protein fluid in alveolar sacs. Biofabrication of natural materials in addressing the anti-inflammatory effect in the lungs is still a challenging for pulmonary tuberculosis. Here, we aimed to develop and characterize a nano delivery system for bio-applications from carnosine dipeptide (CDP), a natural compound with anti-inflammatory activity.

METHODS: In this study, CDP is converted into carnosine nanoclusters (CNC) in the presence of hydrophobic amino acid (L-phenylalanine/ α -Glutamic acid / α -lysine as the hydrophobic segment at varying pH 4,7 and 9) and water-soluble carbodiimide. The size of CNC in suspension and its morphology in different pH were analyzed in triplicates and the mean value is presented.

RESULTS: The hydrodynamic size (200 nm) of CNC with phenylalanine at pH 9 seems to be highly influenced by the side chain distribution which is confirmed through UV

analysis and FTIR spectra. The phenylalanine ring contributes significantly to the absorption at 260 nm in the basic pH. Here, the self-assembling transitions on the aromatic group of phenylalanine are more effective than amide of lysine and carboxylic of glutamic acid. It can be seen from the morphology that the highly dispersed CNC appeared without any agglomeration. It is also observed that the ionic exchange plays a major role in structural transformation and its size determination.

CONCLUSION: Tubular self-assemblies in CNC involve N-H/O interactions, p-p, C-H/p, and van der Waals interactions. The findings suggest that the functional groups of the dipeptide backbone determine the nature of self-assembly by controlling various inter and intramolecular interactions with pharmaceutical agents. Thus, this novel self-assembled nanostructure may be potentially exploited as a drug carrier for targeted drug delivery applications in pulmonary tuberculosis.

KEYWORDS: Carnosine, Nanoclusters, Self-Assembly, Pulmonary Tuberculosis

Compliance Towards Anti Rabies Vaccine and Its Determinants Among People Exposed to Animal Bite in Sular Block of Coimbatore District: A Cross Sectional Study

**Dr. Shanmuga Sundaram, Dr. Aruna, Dr. Somasundaram,
Dr. Sudharshini Subrmaniam**

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE,
MADRAS MEDICAL COLLEGE

BACKGROUND: Globally Rabies accounts for 59000 deaths per year with Africa and Asia contributing to 95% of the deaths. Sular block of Coimbatore District reports an average of 5-10 animal bites per day which seem to be higher in the district. This study is done with the focus of understanding the compliance to Anti Rabies Vaccination (ARV) regimen and the determining factors among people exposed to animal bite approaching the PHC's or GH of this block.

METHODS: A cross sectional study was done among people exposed to animal bite who visited the government facilities in Sular block during October -2021 to March-2022. Using simple random sampling method, a sample of 155 participants was selected from the sampling frame. Data collection was done by trained health care staff through face-to-face interviews using semi-structured questionnaire after obtaining consent. People exposed to animal bites who completed the recommended

course of anti-rabies vaccination (0,3,7,28) irrespective of date appropriateness was considered as compliant.

RESULTS: Most of the study participants were men, and dog bite was the most common animal exposure. Only 54.5% had received their 1st dose of ARV on the same day of animal exposure. Only 60% had completed all 4 doses of vaccination irrespective of date appropriateness. The most common reasons for noncompliance to completion of schedule was low risk perception (14.2%) followed by lack of time (10.3%). The most common reason cited for delay in 1st dose was low risk perception (25%).

CONCLUSION: This study signifies the need for increasing awareness about the disease and post exposure prophylaxis to rabies, to improve the compliance.

KEY WORDS: Anti-Rabies Vaccination, Compliance, Animal Bite

Genetics and Beta-Thalassemia: A Systematic Review

Kezia Angeline J, Gladius Jennifer H

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, INDIA

BACKGROUND: The term “Hemoglobinopathies” confines to genetic diseases of hemoglobin. Classified into two broad groups: Thalassemias and Structural variants of hemoglobins, beta thalassemia has been found to be widespread globally with varied genetic variants. Beta thalassemias comprise of genetic mutations causing reduced/absence of beta-globin chain of hemoglobins, the end result of several inherited mutations. Thalassemia has become an important public health problem because, the affected individuals are more likely to remain asymptomatic till the disease reaches its peak. It is a paramountcy of public health researchers to create awareness about the disorder, which might aid in reducing the frequency of the condition in the society and enhances patients’ quality of life, since it is treatable if identified early. Hence, it is vital to discern diverse groups’ attention to various hemoglobinopathies. This systematic review aimed to associate the role of genetics as an important causative factor in Beta Thalassemia.

METHODS: Databases (Cochrane Databases, Scopus and PubMed) were scrutinized for the relevant articles published in English from 2002 onwards to till date (20-year period). Full

text original articles, Systematic Reviews and Clinical Trials were included, and abstracts and review articles were excluded from the study. The keywords used for search criteria were Thalassemia, ((Thalassemia) and (Genetic Analysis)), ((Thalassemia) and (Genetic Analysis) and (India)).

RESULTS: (*Results are preliminary)

Among the 30 articles reviewed, 15 articles met the inclusion criteria. The systematic review revealed the gaps in identification of inheritance and mutation patterns of the affected genes, thereby causing a delay in risk prediction. This might be due to numerous variations expressed in the genes of beta thalassemia traits.

CONCLUSION: In order to reduce the gaps in identification of mutations and risk prediction, collaboration of Physicians, Geneticists, Biostatisticians and Public health and Health care personnel is mandatory, which enables early identification, diagnosis, risk prediction and treatment, thereby reducing the disease severity.

KEYWORDS: (Beta thalassemia, Genetics, Hemoglobinopathies, Public health)

Developing a Tool for Screening Refractive Error Among School Children In Tamil Nadu

Dr. Rita Hepsi Rani. M, Dr. D. Anandhi, Yuvaraj J, Dr. Shantaram K, Dr. Deepa.M, Dr. Delfiya. B, Dr. Padhma, Dr. Sudharsan, Lakshmi Kandhan, Prateeksha Dawn.

TIRUNELVELI MEDICAL COLLEGE AND HOSPITAL, TIRUNELVELI

BACKGROUND: Refractive error is identified as one of the important causes of correctable, visual impairment and it affects people of all age groups, socio economic status & ethnic groups. Due to lack of awareness, Student's ocular complaints go unnoticed. If refractive error is not identified and treated early, it will lead to amblyopia. Although there are school programs like RBSK and others that are actively engaged in screening and referring them for treatment, the amount of students they're able to detect might still be just the tip of the iceberg because of the amount of students that need to be screened through charts, so this study was designed to develop a questionnaire that has high sensitivity and reasonable amount of specificity to identify students with refractive error by teachers, so as to reduce the burden on the health system and increase the number of students diagnosed and treated.

METHODS: A population based cross sectional study sought to estimate the prevalence of refractive error among school going children in Kallur PHC area. The study comprised of 3432 in the age group of 5-19 years. A detailed questionnaire of assumed surrogate indicators pointing towards refractive error in the children was used and this data was analyzed using SPSS, those markers with

high significance of association with refractive errors were put together, and scored, ROC curve was done to find the suitable cut off later sensitivity and specificity of the questionnaire was calculated using that cut off.

RESULTS: In total of 3432 children 357 having refractive errors (10.22%). Out of 357 students with refractive 299(85%) had simple myopia, 24 (6.8%), single myopic astigmatism, 8(2.27%), simple hypermetropia, 4(1.1%), simple hypermetropic astigmatism, 12 (3.41%) compound myopic astigmatism. 80% of the students were newly identified to have refractive errors. Five variables like spelling mistake while coping from board, habit of copying notes from neighbouring child, squeezing eyes for seeing things, using spectacles previously and deviation of eyes were used to develop the questionnaire as they had 65% probability of deducting refractive error, a cut of 5.5/ 14 has been identified to have 90% sensitivity and 50% specificity of identification of refractive errors.

CONCLUSION: The screening tool will be able to reduce the burden on the health system and by help screening for the largest cause of preventable blindness.

KEYWORDS: Refractive error, screening tool.

A Cross-Sectional Study to Estimate The Prevalence of Mechanical and Biological Hazards in Agricultural Workers of Kancheepuram District

Dr. Shivashankari.P.,A , Dr. Vijaychandran. M

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Majority of the Indian population is dependent on the agricultural industry, but only little attention is paid to their health needs. This study was conducted to estimate the prevalence of mechanical and biological hazards among agricultural workers and to determine the factors associated with their work-related injuries in the Kancheepuram district.

METHODS: A community-based cross-sectional study was done in the Kancheepuram district, over a period of 18 months. The villages under the Thiruporur block were selected by proportional systemic random sampling method. Assuming that 80% is the power of the study and 95% confidence interval, the minimum sample size required for the study was calculated to be 377. Statistical significance was taken as $P < 0.05$. The data was analyzed using SPSS Version 16. Microsoft Excel 2010. was used to generate charts.

RESULTS: All participants were full-time agricultural workers. Among the risk factors, those individuals with age above 51 years, female gender, and socioeconomic class more than 4, have a statistically significant association with the presence of type 2 diabetes mellitus. Those individuals with age above 51 years, male gender, being a Hindu, the habit of drinking alcohol, the habit of smoking, and socioeconomic class of 1 and 2, have a statistically significant association with the presence of hypertension.

CONCLUSION: More than three-fourth of the agricultural workers have morbidity related to musculoskeletal injuries, electric hazards, injury due to sharp instruments, heat-related stress, and skin morbidities.

KEYWORDS: Farmers, Occupational injuries, Hazards, Co-morbidities.

Assessment of Time Required for Delivery of Healthcare Services in Victoria Hospital: A Cross Sectional Study

Dr. Raksha R Nayak, Dr. Riyaz Basha, Dr. Jyothi Jadhav and Dr. Ranganath T S
BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE, BENGALURU, KARNATAKA

BACKGROUND: Victoria Hospital has the New OPD building which caters to needs of patients on Outpatient basis. Since healthcare services are delivered in various establishments within the same campus, there is a need to study the time taken to avail these services by the patients to improve the efficiency in terms of faster delivery of services, reduction in time spent by the patients inside the campus. Hence the study to assess the period required for delivery of Healthcare Services in Medical and Surgical OPD of Victoria Hospital.

METHODOLOGY: A hospital-based study was conducted over period of 3 months with sample size of 120 by Chopade et.al study at OPDs of Department of General Medicine, General Surgery, Orthopedic and Obstetrics & Gynecology at Victoria hospital by tracking the patient inside the campus and enter the timestamp at fixed points such as Entrance of OPD Building, Entry and exit of OPD of each department, Entry and exit at Investigation area or Radiology Department, Free tablet issue

counter. Only the patients providing consent were followed, timestamps were entered in MS Excel and analyzed with SPSS 21.0.

RESULTS: 40.42 % of populations were female. Mean age (years) was 34.04 ± 11.639 . 44.2 % attending OPD were follow up cases. Mean time is maximum (18.00min) in registration to check up table. Mean time taken is maximum (52 min) for both pathological & radiological investigations. Mean total time (entrance to exit) is maximum (134 min) for those required any laboratory investigations. Total mean time was higher in new cases (79.68 min).

CONCLUSION: Management of time in hospitals is the need of hour, it should be recognized, and necessary steps should be taken by quality improvement studies to decrease wait times thus improve health system responsiveness.

KEYWORDS: Healthcare services, Time, Hospital based, Out -Patient Department.

A Study on The Harmful Ocular Manifestations and Visual Outcome Following Exposure to Halogen Bulbs

Dr. Rita Hepsi Rani. M

TIRUNELVELI MEDICAL COLLEGE AND HOSPITAL, TIRUNELVELI

BACKGROUND: Halogen lamp is an incandescent lamp consisting of Tungsten filaments sealed in a compact transparent glass envelope, containing a mixture of inert gas. The small size, easy portability and more coverage area help in its use in many indoor and outdoor events. This carried a problem with its improper use. We report such an incident that happened in Munanjipatti temple, a village in South India, where on using unshielded halogen bulbs lead to blurring of vision, redness, watering, photophobia, irritation and eye pain amongst the temple festival attendees. So, this paper serves the purpose of showing clinical based evidence of ocular side effects on using halogen bulbs.

METHODS: A cross sectional study was conducted by a team of ophthalmologists among attendees of Munanjipatti temple festival to analyze the effect of UV radiation, on ocular tissues caused by unshielded halogen bulbs. A detailed history and clinical ocular examination were done to confirm the diagnosis. A

detailed questionnaire was used to analyze the awareness on ocular hazards of halogen lamp.

RESULTS: Out of 125 attendees we interviewed, 28 developed photokeratitis (22.4%), 80 developed conjunctival congestion (64%), 31 had watering (24.8%) 25 had eye pain (20%), 108 had irritation of eyes (86.4%), 4 had decreased visual acuity (3.2%), 24 had photophobia (19.2%). It was also found that the incidence of photokeratitis is more among those standing less than 10m from the unshielded bulb than others and on prolonged exposure.

CONCLUSION: The essence of this study shows that the ocular manifestations are mainly due to UV exposure from the unshielded halogen bulbs. It also implies the need of government initiative in regulating the usage of protected halogen bulbs and getting permission from the electricity board and keeping the safety measures to prevent the hazards.

KEYWORDS: Photokeratitis, Unshielded halogen bulbs.

To Assess The Knowledge, Attitude and Perception of The Design On Front of The Packaged Food by Medical Undergraduate Students of A Government Medical College, Bengaluru - A Cross Sectional Study

Dr. Raksha R Nayak, Dr. Jyothi Jadhav Dr. Ranganath T S

BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE, BENGALURU, KARNATAKA,

BACKGROUND: Nutrition is one of the important modifiable risk factors for the increasing burden of Non-Communicable Diseases (NCDs), which contribute to 71% of deaths worldwide. WHO defines Front of Package labels (FoPL) as nutrition labelling systems that are presented on the front of food packages in the principal field of vision; and present simple, graphic information on the nutrient content” The right to know what we eat is a right that must be protected so that they can make healthy choices? Hence the study to assess the knowledge, perception regarding food labels on packaged foods and evaluate perception on different types of FoPL practiced across the world and their preference by medical undergraduates.

METHODS: A Cross-sectional study was conducted among all the 4 professional year medical undergraduate students during months of February to May 2022. By Universal sampling the online questionnaire with digital consent was sent to all 960 students out of which 568 were filled taken as sample size. The data was collected by a pre-tested, semi-structured, validated questionnaire. The data collected was

entered in MS Excel and analyzed using SPSS 21.0.

RESULTS: Packaged food and beverages were consumed by 95.3% of the participants. Awareness about FoPL was widely held by 77% of the participants and 68.4% of them considered this information helpful. Over half (56.4%) of the respondents considered packaged foods as healthy. Health star rating (HSR) were the most preferred food labels (89%), followed by Multiple Traffic Lights (MTL).

CONCLUSION: The study highlighted that student are aware of the nutrition labeling and supported the placement of nutrition labeling on the front of the pack. More evidence-based research is recommended regarding the knowledge and perception of people on feasibility of FoPL design which may lay a foundation to formulate laws and policies regarding the FoPL in India.

KEYWORDS: Front of label packaging, medical undergraduates, Packaged food, Nutrition.

A Cross Sectional Study to Assess The Health-Related Quality of Life Among Osteoarthritis Patients In A Tertiary Care Hospital in Chennai

Pitchai Kumaran E, Vainavinandhana I, Supritha P,
Yugabharathi A, Krithiga S, Seenivaan P

GOVERNMENT STANLEY MEDICAL COLLEGE AND HOSPITAL, CHENNAI

BACKGROUND: Osteoarthritis is the most frequent musculoskeletal disease and leads to functional decline and loss in quality of life. Pain is the most common complaint and the most significant cause of decreased health-related quality of life (HRQOL) among osteoarthritic patients. The objectives of this study were to assess health related quality of life (HRQOL), assess the severity of pain and its impact on functioning and the association of various factors related to HRQOL among osteoarthritis patients.

METHODOLOGY: A cross sectional study was conducted among 237 adult osteoarthritis patients aged ≥ 18 years attending Orthopaedic outpatient department, Government Stanley medical College between July-2022 to September-2022 (3 months) through convenient sampling using validated pretested semi-structured questionnaire by face-to-face interview. We used European Quality of Life scale 5 Dimension 5 level with Visual Analog Scale to assess HRQOL and Brief Pain Inventory to assess pain severity and interference. Data

was entered in Microsoft Excel and analyzed in SPSS 16 version. P value < 0.05 was considered as statistically significant.

RESULTS: In our study the average age of osteoarthritis patient is 59.53 ± 10.34 . Out of 237 participants, 66.7%, 17.3% and 16% were having good, average and poor health related quality of life (HRQOL). 70.5%, 14.8% and 14.8% of the participants showed mild, moderate and severe grading of pain severity. 84% and 16% of the participants showed low and high interference on functioning due to pain. HRQOL was significantly associated with gender, age, socio-economic status, smoking, alcohol, disease duration, number of painful joints, treatment, comorbidities, physical activity, pain severity, pain interference etc. using Chi-square test.

CONCLUSION: The results of this study have clearly established that the quality of life in osteoarthritis patient was good with mild pain severity and low pain interference affected by disease duration, comorbidities, pain severity, pain interference etc.

Comparison of Attitude Among Men Towards Beating Wife In Tamilnadu As Per Nfhs 4 and NFHS 5 Data

Dr. K. Md. Shoyaib, Dr. Ranganath T S

BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE, INDIA

BACKGROUND: Domestic violence against women harms individuals, families, communities and society. Perpetrated by intimate partners or other family members, its overlapping forms include physical, sexual and emotional violence, control and neglect.

METHODS: After obtaining permission from DHS program for accessing datasets we included all men residing in tamilnadu. In NFHS 4 and NFHS 5, 2.6% and 8.3% of all men interviewed belonged to tamilnadu respectively. We derived model for factors affecting their decisions for various reasons justifying beating wife such as “going out without informing husband”, “neglecting children”, “refusing sex” etc. using binomial regression analysis. We considered factors such as religion, education, occupation, drinking habits, area of residence, district, wealth index.

RESULTS: In NFHS-4 and NFHS-5 63.7% and 64.6% men were married respectively. In

both surveys majority of the men belonged to Secondary level of education. Men residing in urban areas and with higher level of education had positive attitude who do not justify beating wife for reasons like going out without informing husband, refusing to take care of children, refusing sex etc. Higher levels of education contributed to lesser adjusted Odds Ratio for beating women: 0.89 (0.81-0.92), Residing in Urban areas had lesser adjusted Odds Ratio for beating women: 0.78 (0.71-0.85). Those without Alcoholic drinking habits had lesser adjusted Odds Ratio for beating women: 0.88 (0.80-0.87).

CONCLUSION: Better education, Occupation, lack of alcohol consumption habits, residing in urban areas and higher wealth index had less odds of negative attitude of men towards beating wives.

KEYWORDS: Men, Attitude, Beating wife, Tamilnadu

A Cross Sectional Study To Assess The Health-Related Quality Of Life Among Rheumatoid Arthritis Patients In A Tertiary Care Hospital In Chennai.

Amirtha Varshini M, Anjuka L, Dr. Anbuselvan, Dr. T. Susila, Dr. M. Hema, Dr. P. Sreenivasan

GOVERNMENT STANLEY MEDICAL COLLEGE AND HOSPITAL, CHENNAI

INTRODUCTION: Rheumatoid arthritis (RA) is a progressive articular disease, characterized by persistent synovitis, systemic inflammation, and autoantibodies. It causes joint pain, swelling, tenderness, warmth, redness, stiffness and loss of joint motion. These patients remain unsatisfied due to ignorance, delayed presentation, long duration of therapy, financial constraints, ineffective motivation, and counseling.

METHODOLOGY: A Hospital based cross sectional study of Rheumatoid Arthritis patients attending Rheumatology OPD. Participants were selected consecutively till the required sample size 106, from July 2022 to September 2022. Information was collected by face-to-face interview. Data was analyzed using SPSS software version 16. p value <0. 05 was considered statistically significant.

RESULTS: Our study stated that, majority of the study participants were females (84%).

92. 5% had problem in mobility, 90. 6% had problem in self-care, 98. 1% had problem in doing usual activities, 86. 8% had anxiety. 4.7% had suicidal ideation. 32. 7% had large impact on their job. 28. 6% people had to quit their job. There is a significant mean difference in occupation and job impact between male and female. Males have higher mean value in occupation (p=0. 000). Females have a higher mean value in job impact (p=0. 001).

CONCLUSION: Medical intervention has provided good relief of pain to the patients. Majority had problems in mobility, carrying out usual activities, job impact, anxiety which affects quality of life by physical, mental and economic means. Early diagnosis, regular treatment, proper counseling and follow up is necessary to manage the condition, minimize progression, preserve joint function.

KEYWORDS: Rheumatoid arthritis, Health related quality of life, Mobility, Job impact.

Comparison Mortality Pattern During Pre and Post Covid Period In Kanniyakumari District

M.Golden Sheeba, Dr.S. Meenachi

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION: Human history reveals that different diseases have influenced the mortality patterns of population. Analyzing the mortality data could bring out valuable insights regarding the influence of COVID 19 in the population. Hence, we conducted this study to determine whether there is any difference in all-cause mortality in Pre COVID and Post COVID Time, whether there is any difference in mortality among various age groups and for important causes of death.

METHODS: We did a secondary data analysis by obtaining data from Civil Registration System software of Kanyakumari district pertaining to April to September of 2019 (pre COVID) and 2022 (post COVID). We calculated mortality rates with confidence intervals for different age groups and causes.

RESULTS: In comparison to pre COVID period, mortality rate had increased (statistically significant) in the following groups: total

population, females, above 60 years; cause specific mortality rates had increased for heart disease & heart attacks and senility and decreased for bronchial asthma and pneumonia; gender wise analysis for heart disease revealed that increase among females were statistically significant; for senility statistically significant increase was found in both genders

CONCLUSIONS: Mortality experience of Kanyakumari District had a significant change in post COVID period; old age population and females had been dying more; heart disease and heart attacks had been noted higher in post COVID period especially for females. Interestingly, death due to bronchial asthma and pneumonia had decreased. We recommended further (primary) studies before attributing the difference in mortality experience to COVID 19 exposure of population.

KEY WORDS: Pre and post COVID periods, Mortality rates.

A Study on Handling of Facemask Among Patients Attending Rural Health Training Centre

Dr. Thamarai Selvi J, Dr. A.M. Stanly
SRMC & RI, CHENNAI

BACKGROUND: Mask is defined as any cloth mask, medical mask, N95 respiratory mask worn over the face covering the bridge of the nose, mouth and chin. The correct use of mask is essential the mask usage among the local community is being important concern particularly visiting high risk area of cross contamination as hospital

OBJECTIVES: To assess the handling of facemask among patients attending rural health training center

METHODS: The study was conducted among 287 patients attending the rural health training center. The convenience sampling methods was used, and the basic socio-demographic details followed by semi- structured questionnaire for handling of facemask were used.

RESULTS: of the 287 patients, 40.8 % were male and 59.2 % were female. Mean age 48.52 and SD was 15.493 The knowledge of proper handling of mask and disposal was 53.7% and 53.3%. They strict aspects on proper handling and disposal of facemask were 18.5% and 25.1% respectively

CONCLUSION: The knowledge about handling and disposal was 53.7% and 53.3% but only 18.5 %and 25.1% followed the steps on facemask usage precisely. The risk of cross contamination is observed to be highest. There must be improved compliance to proper facemask practice among the health Centre

KEYWORDS: Facemask, handling, disposal,

“A Comparative Study to Assess The Association Between Body Mass Index and Anxiety Levels Among Non-Medical and Medical Degree College Students, Bengaluru 2022

Dr. Riya George, Dr. Kishore S.G., Dr. Ranganath T.S.

BANGALORE MEDICAL COLLEGE & RESEARCH INSTITUTE, BANGALORE, KARNAKATA,

BACKGROUND: Anxiety is mental and psychological state which is distinguished by cognitive, somatic, emotional and behavioral components. One of the major health problems faced by the youth include anxiety. Few researchers recommend that obesity can lead to common mental health disorders, whilst others have found that people with such disorders are more prone to obesity. However, information regarding the effect of mental health on obesity remain unclear. Both the factors obesity and mental health issue contribute to global burden of disease. Psychological and behavioral patterns can contribute to obesity and on the other hand increased body weight can affect the mental health of the individual.

OBJECTIVES To assess the association between BMI and anxiety levels among non-medical and medical degree college students, Bengaluru.

METHODS: A cross sectional study was conducted among a total of 120 MBBS degree students and 120 non-medical degree college students, Bengaluru from July 2022 to august 2022. A simple random sampling method was

done. Consented patients of age greater than 18 years were included, those with history of psychiatric illness were excluded. After obtaining permission from Institutional Ethical Committee and Directorate of Collegiate Education, Hamilton Anxiety scale was used to assess anxiety and BMI was measured in kilograms per metre square. Data was entered in MS Excel and analyzed using SPSS software ver 20.0

RESULT: 30% of the participants were found to have anxiety in MBBS students whereas anxiety prevalence among degree college students were found to be 34%. A significant correlation could be drawn between BMI and anxiety score. Prevalence of anxiety was less common among day scholars and male gender.

CONCLUSION: High occurrence of anxiety among students is seen when they enter their new professional medical curriculum. To tide over this anxiety, different strategies can be adopted including yoga, sports and meditation.

KEY WORDS: Anxiety, BMI, college students, Mental health

A Study to Assess The Prevalence of Depression and Anxiety Among Female Infertility Patients In A Tertiary Care Center, Chennai

Nikisha A, Meena Dharshini S, Neha N, Dr. Yamuna Devi R, Dr. Seenivasan P
STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Infertility is a distressing condition that can have serious psychological, social and cultural consequences. Depression and anxiety are two of the disorders that adversely affect quality of life, well-being and marital relationship. The purpose of this study is to find out prevalence of depression and anxiety among female infertility patients and the factors associated with it.

METHODS: A cross sectional study was conducted among 71 female infertility patients who attended the OPD between July-September 2022 using HADS scale and a semi structured questionnaire containing information on socio-demography, morbidity. Data was entered in Epicollect5 and analyzed using Epi Info 7. Chi-square test was used. P values <0.05 were considered statistically significant. Score: Normal: 0-7, Borderline abnormal: 8-10, Abnormal: 11-21 by HADS.

RESULTS: Among the study participants, based on HADS:

- 1) **Anxiety:** Abnormal- 36.62% (26); Borderline abnormal- 12.68% (9); Normal- 50.70% (36)
- 2) **Depression:** Abnormal- 18.31% (13); Borderline abnormal- 11.27% (8); Normal- 70.42% (50)

Univariate analysis showed a statistically significant relation between infertility duration and interest in appearance and ability to enjoy things, and marriage duration and worrying thoughts.

CONCLUSION: The prevalence of anxiety was 49.3% and depression was 29.58%. Incidental findings were made showing an association between infertility and marriage duration and depression. To improve this situation, information, education and communication are suggested targeting the patients and their families.

Prevalance of Severity of Anaemia Among Non-Pregnant Reproductive Age Group Females In Hilly Region of Thally Block, Krishnagiri District, Tamilnadu - 2022

Dr. G. Thilak Kumar

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Anemia is a condition in which the number of red blood cells becomes insufficient to meet the body's physiologic needs. Anemia is one of the major public health problems in India. The aim of this study was to find the prevalence of anemia and its determinants among the non-pregnant reproductive age group females in hilly region of thally block. (59)

METHODS: After getting consent and following proper protocol, a cross-sectional study was conducted among 1050 females of Reproductive age group belonging to the hilly region .Through a proper questionnaire method, the following data was collected from the study participants 1) Height , 2)weight, 3)blood grouping,4) BMI,5)BP ,(6) capillary blood glucose levels , &7) hemoglobin using cynometh method (drapkin solution).WHO severity of anaemia criteria was followed and prevalence of anaemia was evaluated.

RESULTS: Out of 1050 females, prevalence of anaemia in non-pregnant reproductive age group is 45.90% and as per WHO criteria the severity of anaemia as follows 1.05 % were severe of which 27.27% were undernourished 21.14% were moderate of which 26.58% were undernourished 23.71% were mild of which 20.08% were undernourished and all belonging to low socio economic status (labourors)

CONCLUSION: To reduce the burden of anemia among the female of reproductive age group in hilly region, apart from periodical screening of pregnant women it is recommended that, females of reproductive age should also be screened periodically and other appropriate measures like giving prophylactic drugs, health education regarding nourishment, hygiene etc., should be given.

KEYWORDS: Cross-sectional study, cynomethod (drapkin solution), undernourished, severity of anaemia as per WHO criteria

Knowledge, Attitude, Practice and Concerns Regarding The Covid – 19 Vaccines In A Rural Area, Tiruvallur

Dr. Shameema Rubaiya A, Dr. Tamarasi R, Dr. Seenivasan P
STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: In India, the COVID-19 vaccine was launched on 16th January 2021 for healthcare and frontline workers. A significant proportion of eligible candidates have not turned up for their second dose of vaccine. The vaccine's acceptance is influenced by multiple factors such as their knowledge and perception on the perceived likelihood of the COVID-19 spread, perceived safety of vaccine, perceived efficacy of the vaccine and perceived risk etc. Thus, it is pivotal to interpret people's knowledge, attitude, practices, and concerns regarding COVID-19 vaccine to improve its mass acceptance.

METHODOLOGY: A community based cross sectional study was conducted in Rural Health training centre, Chennai between October 2021 to December 2021. Study was conducted in all patients above 18 years of age attending rural health training centre till the required sample size of 224 was obtained. Data was collected using a semi structured questionnaire. Data entered in SPSS version 16 and analyzed.

RESULTS: Nearly 74.6% of the study participants had taken two doses of vaccines. Participants had a fair idea about the eligibility of different target groups for the vaccination as the participants knew that adults aged over 18 years (95.1%) and recovered COVID patients (80.4%) were eligible for the vaccine and (63.4%) were aware about the eligibility of people with comorbidities. Nearly (62.9%) knew that the immunity against the COVID-19 virus could be achieved after the second dose of vaccination. 26.3% participants expressed their concern about the rapid development of the vaccine.

CONCLUSION: The findings reflect adequate knowledge and positive attitude towards covid vaccination. It is because of good awareness the vaccination coverage could be maximum. In order to make the non-acceptors to get vaccinated and to address the concerns regarding covid vaccination health education programs need to be initiated.

KEY WORDS: Covid 19, Covid vaccine

Establishment of Household Cohort In The Field Practice Area of Model Rural Health Research Unit in South Tamilnadu

K. Shantaraman, K. Sunitha, J. Yuvraj, P. Manickam, G. Muthu
TIRUNELVELI MEDICAL COLLEGE

BACKGROUND: Longitudinal cohort studies, remain critical to the advancement of public health and policy. Their advantages include the ability to establish the sequence of events, identify and relate events to particular exposures, and monitor changes over time in cohort members. The cohort design has been used to determine disease causation, examine the determinants of ill-health or to assess health outcomes. The objective of this is to describe the methodology and lessons learned from establishing a rural cohort in Tamilnadu.

METHODS: A Household cohort was established in the Kallur -MRHRU field practice area to describe the existing disease patterns and risk factors, health seeking behavior, morbidity and mortality patterns of 11,006 households (HH) with 40764 individuals across 14 clusters between 2014 to 2019: Technology enabled electronic data was collected using tabs, including mapping and geographic positioning of the village boundaries and individual homes done. Baseline data was collected, and Data

storage done at central static server in National Institute of Epidemiology, Chennai

RESULTS: The cohort consist of 49.8% females and 50.2% males. with under five sex ratio of 1080. Geriatric people constitute 16%. Self-reporting identified 1356 hypertensives, 119 Type 2 Diabetics. Administrative bottle necks include Lack of permanent field staff, interrupted fund flow. Implementation difficulties include urbanization, migration, refusal, locked houses and prolonged duration for completion, working pattern of rural people, accessibility

CONCLUSION: Cohort establishment requires huge manpower and swift data capturing. The public interaction has established a good rapport with public and has provided a database for future projects in specific groups and diseases.

KEYWORDS: Cohort, Establishment, Challenges

Immediate Practices and Health Seeking Behaviour In

Dani Rovas S, Charlotte Bessie Sagaya S, Bhuma Sharanya, Charunethra M, Devimahalakshmi S S, Dr. Senthil Arasi, Dr. A. Shameema Rubaiya, Dr. P. Seenivasan
STANLEY MEDICAL COLLEGE, CHENNAI

INTRODUCTION: Animal bites pose a major health problem in children and adults worldwide. They are the main source of rabies infection. Rabies is a highly fatal disease but is vaccine preventable. Hence the study to assess immediate wound management practices and to document the health seeking behaviour among animal bite victims is of great significance.

METHODOLOGY: A hospital based cross sectional study on animal bite patients with Category II and III animal bite, attending Medicine OPD. Participants were selected consecutively till the required sample size 103, was attained from July 2022 to September 2022. All information was collected from the study participants by Face-to-Face Interview. Data was analyzed using SPSS software version 16. p value <0.05 will be considered statistically significant.

RESULTS: Majority of animal bite cases belonged to Category III (35.9%). Majority were bitten by dog (83.5%). of the animals, 41.7% were domesticated. Only 29.1% of the bitten animals were vaccinated. Immediate wound washing was done by 70.8% of the study participants. 29.1% used applicants immediately after the animal bite. Almost all (95.1%) the study participants had health care facility as their first point of health seeking.

CONCLUSION: Health seeking behaviour was good among the study participants. There is incorrect immediate wound care following animal bite among the study participants. Health education should be strengthened on wound care following animal bite and before coming to health facility.

KEYWORDS: Animal bite, Immediate practices, Health seeking behaviour

Awareness, Attitude and Willingness Towards Organ Donation Among Adults Seeking Healthcare In A Tertiary Care Centre In Chennai; A Cross-Sectional Study

Agathiyan, Dr. Anbu Selvam, Dr. Evangeline, Prof. Dr. P. Seenivasan
STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Organ donation (OD) is surgical removal of an organ/tissue from one person and placing it into another person. India is currently having a deceased donation rate of 0.05–0.08 per million population. Assessment of knowledge, attitude and willingness towards organ donation in the community is essential for better understanding on different aspects of organ donation. This will help us to further improve the health education strategies towards voluntary organ donation.

OBJECTIVES: To assess the awareness, attitude, willingness about organ donation among the people seeking healthcare in a tertiary care centre in Chennai.

MATERIALS & METHODS: This cross-sectional study was carried out among 130 randomly selected adults attending Govt Stanley Hospital during a period of three months, by face-to-face interview using a pretested, structured questionnaire containing questions on awareness and attitude towards organ donation and willingness for organ

donation. Data was entered into Excel and statistical analysis was done using SPSS v.16.

RESULTS: Mean age of study population was 42.85 ± 9.09 years with 83 participants (63.8%) coming from urban areas. of the 130 adults, 123 (94.6%) have heard about organ donation and 118 (90.8%) had a positive attitude towards organ donation, but only 85 participants (65.4%) were willing to donate their organs. The most common reason for unwillingness was no interest 85(65.4%). Positive attitude was more among Married People and willingness for organ donation was more among Urban people.

CONCLUSION: The results of this study have clearly established that awareness about organ donation was high but still most of them were not aware about organ donation card and barrier to organ donation was religion and locality which can be eliminated by IEC and support from community.

KEYWORDS: Awareness, organ donation, willingness

Experiences and Lessons Learnt In Home Based Physiotherapy Rehabilitation Through Public Health Program (Makkalai Thedi Maruthuvam Scheme) - A Cohort Study

Dr. Suresh Subbiah, Dr. M. Karunanithi,

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: To provide “ Home-Based Health Care Services “ at the doorstep for the Hypertension / Diabetes mellitus patients, Patients with Chronic debilitating illness, Elderly home bound patients and those with restricted mobility residents of Tamil Nadu, the respected and Honourable Chief Minister Thiru.MK Stalin launched a new program on 5th August 2021 known as Makkalai Thedi Maruthuvam Scheme. This scheme also covers Home based Physiotherapy services to the needy people. The routine exercise is a vital part that keeps the immunity at par and also the disability at bay. Through this scheme physiotherapy has reached to every doorstep and this cohort survey aim to understand how the physiotherapy services have reached the community and the public who are in high need.

METHODS: The sample size was estimated assuming 90%power and 5% significance level. The estimated size was 398. After obtaining an informed consent and explaining

the procedures to the target population the cohort study was conducted using the SF-36 Questionnaire, surveying the people in and around hamlets of Chellampatti Block, Madurai .These people were the beneficiaries of the scheme under which they utilized physiotherapy services for various ailments and the score of the scale was used to analyze and understand the benefits of physiotherapy though Home based rehabilitation.

RESULT AND CONCLUSION: To statistically analyze the survey a descriptive statistic was used, and graphical representations were made to know the reach of Home-based Physiotherapy services for the people in need. With the statistically proven results, we conclude that physiotherapy services reach doorsteps and benefits many cadres of people through community-based rehabilitation under Makala Theda Maruthuvam Scheme.

KEY WORDS: (Home based, Mobility, Physiotherapy, Rehabilitation)

A Study to Assess Medication Adherence, Clinical Profile and Risk Awareness Among Hypertensive Patients Residing In The Urban Field Practice Area of Government Medical College, Bengaluru

Dr. Mouna H S
 PESIMSR, KUPPAM, INDIA

BACKGROUND: Hypertension is a ‘Silent Killer’ which is of public health importance. Medication adherence and risk awareness have an important effect on the control of blood pressure and its associated morbidity and mortality. Since, the treatment is lifelong and adherence is affected by multidimensional factors, which poses a tough challenge, especially among the urban slum population. Therefore, this community-based study was conducted to assess the extent of medication adherence, clinical profile and risk awareness among hypertensive patients.

METHODS:

- Study Design: Community-based Cross-Sectional study
- Study area: slums in the urban field practice area of Government Medical College, Bengaluru
 Study population: Hypertensive patients residing in urban slums.
- Study Period: November 2017 to May 2019
- Sampling method: Probability Proportionate Sampling method. Sample size: 390 (based on Dr. Babu et al)
- Data collection and analysis: Data was collected by interview method, using a semi-structured questionnaire which included

questions regarding socio-demographic factors, medication adherence and risk awareness among hypertensives

RESULTS: In our study, mean (+SD) age of the study subjects was 50.43(+ 8.23) years and majority were females (58.4%). Among 390 study participants, adherence to antihypertensive medication reported was around 63.1%. 79.9% were obese and 33.8% of men and 41.7% of women had abnormal Waist-Hip Ratio. In, high-risk awareness regarding factors associated with hypertension. 300 (76.9%) were aware that high blood pressure runs in families. 357 (91.5%) were aware that a person with hypertension should eat less salt. 219 (56.2%) of subjects. Nearly half of those who were adherent to their prescribed medications achieved control of their blood pressure which was found to be statistically significant (p -value < 0.05).

CONCLUSION: Apparently, adherence to antihypertensive medication was 63.1%, metabolic risk factors were reported in more than of the participants and relatively good risk awareness regarding hypertension was found

KEYWORDS: Hypertension, medication adherence, risk awareness

Adopting Co-Creation As A Problem Identification and Solving Method For Improving Tb Patient Care – A Field Experience of Problem Solving Under National Tb Elimination Program

Karikalan.N, Chandra Suresh, Murugesan.P, Dhanalakshmi.A, Priscilla. B, Javeed.B, Rony. M, Stephen A.

NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

BACKGROUND: Tuberculosis patients experience multiple risks and barriers during treatment period which result in unfavourable outcomes. Identifying granular issues prevalent at the levels of TB patients and health providers in local health facilities which are predictive of unfavourable treatment outcomes and developing implementable solutions is of practical importance for improving patient care.

METHODS: Participatory co-creation method was used to explore acute factors predictive of unfavourable treatment outcomes among TB patients treated by health care providers (n=13) of the National TB Elimination Program of Greater Chennai Corporation. Participants were randomly divided into groups and were facilitated by researchers, to brainstorm the causes of unfavourable treatment outcomes based on their experiences, knowledge and perspectives. Posters and slips were used as tools to list and compile the potential issues and solutions at group level, and they were ranked by within group and between group consensus based on feasibility and resource intensiveness.

FINDINGS: Co creation resulted in identifying four important causes leading to poor treatment

outcomes including death 1) Delayed treatment initiation (> 6 months) 2) Uncontrolled episodes of heavy alcohol drinking during TB treatment 3) Uncontrolled diabetic TB patients (>300 mg/dL) lacking timely access to insulin 4) TB patient with co-morbid respiratory and/or cardiac conditions. TB awareness generation in social media, sensitizing family members on diabetic status of TB patients were prioritized as feasible and low-cost intervention. Counselling for alcoholic TB patients and strengthening referral to de-addiction services were prioritized to prevent alcohol related issues. Screening for lung and heart co-morbidities during treatment initiation was identified as a priority.

CONCLUSION: Participatory methods involving frontline health workers could be of potential use in identifying factors that drive poor TB treatment outcomes. Co creation also provided opportunities to evolve solutions which are adaptable to the local context by the health care providers and holds translational value.

KEYWORDS: Co creation, Tuberculosis, Treatment, Problem solving

A Cross Sectional Study on Quality of Life Among Elderly Population Residing In Rural Chengalpattu, Tamilnadu

Dr. S. Sivalingam, Dr. V.V. Anantharaman and Dr. Regan Ronald
SRM MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTRE TAMIL NADU

BACKGROUND: The quality of life is becoming a great concern throughout the globe in the recent times especially among geriatric population. Though many previous studies had conducted, still the quality of life and the factors affecting it becomes questionable due to the lack of quality and confounding variables.

AIM: To evaluate the quality of life among elderly people residing in rural practice area of a medical college in Tamilnadu.

MATERIALS AND METHODS: A cross-sectional study was conducted among geriatric population of aged 60 years and above residing in the rural field practice area of SRM medical college hospital and research centre, Chengalpattu district of Tamilnadu. The sample size was estimated to be 400 and the samples were recruited from nine villages in the rural field practice areas of SRM hospital based on the systematic random sampling method. The data regarding demographic data and the quality of life of elderly people were collected

using WHOQOL-BREF questionnaire. This consists of 26 items and four domains which includes physical, social, psychological and environmental domains. The collected data was assessed using ANOVA and post hoc Scheffe test. P value <0.05 was considered to be statistically significant.

RESULTS: The quality of life of geriatric population was found to be statistically significant in all the four domains with respect to age, gender, lifestyle habits. The family type of elderly people was found to be statistically significant with the quality of life.

CONCLUSION: The quality of life of geriatric population was very moderate.

The familial type and the socio-economic status of the elderly people have a strong influence in maintaining their quality of life

KEYWORDS: Geriatric, Quality of life, Rural areas, Domains, Psychological, Tamilnadu

Pregnancy Yoga For Normal Delivery

Kalaiselvi.C

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Yoga protects expecting moms from difficulties during birth (preterm delivery, caesarean section (CS), and fetal mortality), and pregnant women who practice yoga (Hatha) consistently have the best chance of having a normal delivery. The purpose of this study is to urge pregnant women to have normal births.

METHODS: This was a clinical trial investigation. We approached Mrs. Mariyayee (Yoga Satya), the founder of Tapas Yogalaya in Avinashi, who is six months pregnant and undergoing care at our hospital. With her assistance, we conducted a case study of 50% of pregnant women who practice Hatha Yoga, then we compared the two groups with another 50% of pregnant women who did not practice yoga. Yoga practitioners were shown to be intellectually and physically stronger than non-yoga practitioners. Pregnant women who practice yoga begin as early as their sixth month and can devote up to 30 minutes each day to

yoga, breathing exercises, and meditation. They practice in the morning and in the evening.

RESULTS: Pregnant women who practice yoga report that their bodies are more flexible and freer of hip discomfort, muscular spasms, muscle cramps, headaches, leg pain, and other aches and pains. They feel more emotionally stable and devoid of unexpected shifts such as anger, irritation, and melancholy when compared to other pregnant women. Yoga reduced induction of labor, episiotomy rupture, labor length, and had a substantial influence on normal birth weight and delivery at the proper gestational age.

CONCLUSION: Regular yoga practice benefits both mother and child and provides mental bravery throughout childbirth to keep both the kid and mother healthy. Not only can exercise assist to maintain the infant physically and emotionally fit and cheerful after delivery. Both the mother and the child are doing. l.

KEYWORDS: Pregnancy Yoga, Normal Delivery

A Cross Sectional Study To Find The Prevalence of Comorbidities in Chronic Kidney Disease in A Tertiary Care Hospital, Chennai

**Dr. Bamilan R, Geethanjali P, Dhiyanesh Krishnaa VS,
Dr. Kirthiga S, Dr. Seenivasan P, Dr. Edwin Fernando M**
STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: Chronic kidney disease (CKD) is a leading cause of morbidity and mortality and commonly occurs in people with coexistent comorbidity. During the early stages, patients may present with normal or slight decrease in glomerular filtration rate (GFR) and albuminuria. Later, it may progress to end-stage renal disease (ESRD) or kidney failure. Comorbidities are important because they may impact on treatment, medications management, quality of life, and survival. Patients with CKD have a reduced QOL and increased severity of both symptoms and psychological distress suggests that attention should be given to psychosocial and medical interventions to improve QOL in CKD patients. In order to address the above concern, the prevalence of comorbidities in CKD and quality of life are assessed to provide better healthcare facility to CKD patients.

MATERIALS & METHODS: A hospital based cross sectional study was conducted in Nephrology Department, Govt. Stanley Medical College, Chennai among 220 CKD patients. Data were collected using socio-

demographic questionnaire and WHOQOL-BREF questionnaire. Data were analyzed using SPSS Chi square was done. $P < 0.005$ was considered statistically significant.

RESULTS: Common Comorbidities among CKD were hypertension (71.4%), diabetes mellitus (32.7%) and cardiovascular disease (19.1%). On assessing the quality of life, it was found that the environmental domain had the highest mean score at 64.4412 followed by social relationships domain at 60.8802, then physical health domain at 57.9388 and finally the psychological domain at 57.6678.

CONCLUSION: The results of this study have clearly established that there is higher prevalence of CKD with comorbidities which can be reduced significantly by proper early screening and interventions. The CKD patients with comorbidities have poor QOL compared to the ones with no comorbidities that proves to improve the quality of life, the comorbidities should be intervention first. Hence any intervention in this area will lead to a large impact.

Causes and Determinants of Early Neonatal Mortality Rate in Aranthangi Health Unit District - A Retrospective Study

Dr. S Umamageshwaran, Mrs. M Kalaiselvi

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND - JUSTIFICATION: The Early Neonatal Mortality Rate is defined as the number of neonatal deaths occurring within seven days of life expressed per 1,000 live births. The National Infant Mortality Rate is declining. However, the Early Neonatal Mortality Rate (ENMR) is not declining as quickly as late or post neonatal mortality. Prematurity, Neonatal infection (Sepsis) and birth asphyxia are the three main factors at the heart of the issue. The Objective of this study is to determine the causes for this early neonatal mortality deaths in newborns since it is also one of the most significant and sensitive markers of the availability, usage and efficacy of community health services.

METHODS: Retrospective study by secondary data analysis with verbal autopsy, death case sheets and Antenatal registers.

RESULTS: Out of total 9667 live births, there were 74 early neonatal deaths during the study period. Among them 57% were of preterm

and 77% were of low birth weight. Females (54%) had a greater rate of early neonatal mortality. The causes of early neonatal deaths were respiratory distress syndrome (35.1%), Sepsis (23%), Severe Birth Asphyxia (18.9%), Congenital anomalies (16.2%), Extreme Low Birth Weight (2.7%), Meconium Aspiration Syndrome (2.7%) and Convulsion (1.4%).

CONCLUSIONS: Early Neonatal Mortality Rate of Tamilnadu during April 2021- March 2022 is 5.3/1000 live births but in Aranthangi Health unit District Early Neonatal Mortality Rate is 7.6/1000 live births which is significantly higher. Prevention of preterm delivery, proper management of low-birth-weight babies, and early detection and appropriate management of respiratory distress syndrome, sepsis, and birth asphyxia will become important interventional strategies in reducing early neonatal deaths.

KEYWORDS: Aranthangi, Determinants, Early Neonatal Mortality rate

Premature Cognitive Aging In Hiv-1 Infected Individuals on Successful Long Term Antiretroviral Therapy

Hemalatha Babu, Gladys Rachel, Ujjwal Neogi, Natarajan Palaniappan, Anbalagan Selvaraj, Ponnuraja Chinnaiyan, Vijila Sundara, Vinoth Kumar Viswanathan, Girish Kumar CP, Srikanth Prasad Tripathy, Luke Elizabeth Hanna

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

INTRODUCTION: While antiretroviral therapy (ART) has transformed HIV infection to a chronic manageable condition, emerging evidence shows that HIV accelerates aging at the cellular level and contributes to higher risk for an array of aging-related diseases despite well-adhered therapy. This study aimed to investigate the impact of long-term HIV infection on neurocognitive function in HIV-1-infected individuals.

METHODS: We measured a panel of proteins associated with neuroinflammation and neurodegeneration (Olink Neuroexploratory Panel) in the plasma of HIV-1-infected individuals (n = 22; median age = 45 years) on first-line cART for >5 years with suppressed viremia and stable CD4 count and compared them with that seen in an equal number of age and gender-matched HIV-uninfected healthy persons. Individuals with co-infections and co-morbidities like diabetes mellitus, hypertension, obesity, cardiovascular disease or other chronic illnesses, illicit drug usage, alcohol consumption, and intake of anti-inflammatory drugs were excluded from the study. All participants underwent three sets of neurocognitive tests using the International HIV Dementia Scale (IHDS). The sum of scores for each set of tests was taken as the total

IHDS score, and a composite score ≤ 10 was considered to be indicative of potential risk of cognitive impairment.

RESULTS: The study identified significantly altered levels of a number of proteins associated with neuropathological conditions including Glycoprotein Nmb(GPNMB), Secreted Frizzled Related Protein-1(SFRP1), Defensin Beta-4A(DEFB4A), tubulin polymerization promoting protein family member-3(TPPP3) and Amiloride-sensitive amine oxidase(AOC1), Cadherin-17(CDH17), Bone Marrow Stromal Cell Antigen-2(BST2), 6-Pyruvoyltetrahydropterin synthase(PTS), Annexin-A10(ANXA10) and Interleukin-15(IL15) in HIV-infected individuals as compared to healthy controls. In keeping with this observation, we found that a significant proportion of HIV-infected individuals had subtle cognitive impairment, with >75% of these individuals scoring ≤ 10 in the IHDS test.

CONCLUSION: Our study identified significant alterations in several neuroinflammatory proteins and an associated decline in neurocognitive function in HIV-1-infected individuals despite well-adhered ART and effective viral suppression, suggesting that more needs to be done to bring the best care and treatment to those living with HIV.

Serum Igg Levels To Sars-Cov-2 In Natural Infection Versus Vaccination

Anbalagan S, Nancy Hilda J, Kannan T, Kannan M, Sathyamurthi P, Murugesan S, Malathi M, Brindhya B, Sriram S, Padmapriyadarsini C
ICMR-NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

BACKGROUND: In contrast to vaccinated individuals, it may be assumed that naturally infected persons may have a better immunologic response since they develop antibodies to several parts of the virus. However, there is varying evidence on the levels of SARS-CoV-2 specific IgG antibodies elicited by vaccination versus that resulting from natural infection. We compared circulating anti-S1 RBD IgG levels (surrogate for neutralizing antibodies) in a population comprising of vaccinated and non- vaccinated . individuals with or without previous SARS-CoV-2 infection.

METHODS: Serum samples of 7022 individuals (3120 males and 3902 females) from in and around Chennai, Tamil Nadu, were screened for the presence of IgG antibodies against S1 protein of the receptor binding domain (S1-RBD) of SARS-CoV-2 on the Advia Centaur XP Immunoassay systems using the Siemens SARS-CoV-2 IgG Assay (Siemens Healthineers India). The data of the test results from the machine were merged with the individual participants' data and then analysed.

RESULTS: of the 7022 individuals, 1356 were vaccinated, 266 reported a history of

confirmed COVID- 19, and 87 had both prior natural infection and vaccination. Significantly higher levels of anti S1-RBD IgG were found in vaccinated individuals (median=1414.4 BAU/mL; IQR 102.5-3270) than in naturally infected non-vaccinated individuals (median=136.9 BAU/mL; IQR 46.9-614.3). Individuals with prior SARS-CoV-2 individuals who received. However, individuals who reported prior history of infection as well as one or two doses of vaccination had significantly higher levels of anti S1-RBD IgG compared to those who reported either infection or vaccination (median=3270 BAU/mL; IQR 617.6-3270). In general, females had more antibody levels than males.

CONCLUSION: Our study provides convincing evidence to suggest that even one dose of vaccination in individuals with a history of natural infection with SARS-CoV-2 mounted significantly higher neutralizing antibody response. In the current scenario where the vast majority of the population has been exposed to SARS-CoV-2 infection, it would be important to ensure at least one dose of vaccination for all.

Factors Influencing Service Utilization Among Beneficiaries and Perspectives of Health Care Providers on Their Challenges Faced at The Health and Wellness Centres In Cuddalore District, Tamil Nadu

Dr. Abinav Sivakumar, Dr. Abhijit V. Boratne and Dr. Lalithambigai. C Srikanth Prasad Tripathy, Luke Elizabeth Hanna

CHETTINAD HOSPITAL AND RESEARCH INSTITUTE, TAMIL NADU

BACKGROUND: Primary health care is an approach to health and wellbeing centred on the needs and circumstances of individuals, families, and communities. To ensure delivery of comprehensive primary health care, the existing Sub Health Centres and Primary Health Centres were transformed to HWCs. There are not much of pre-existing literature exploring the challenges in running the Health and Wellness Centres. Therefore, our aim was to explore the perceived factors influencing service utilization among beneficiaries and the health care providers' perspectives on their working experiences and challenges faced at the Health and Wellness Centres

METHODOLOGY: This qualitative study was based on data from six FGDs (three FGDs in rural and three FGDs in urban) with 6-8 participants in each FGD were conducted among the beneficiaries till the point saturation was achieved. Six key informant interviews (KIIs) among the willing HCPs of HWCs covering all cadres were conducted till the point of saturation point was achieved. The

individuals for FDGs & KIIs were selected by purposive sampling based on their willingness.

RESULTS: Three major themes emerged from focus group discussions viz. facilitating factors for service utilization, barriers for service utilization, and suggested measures in improving service utilization. The key informant interviews among health care providers resulted in three important themes: working experience at HWCs, perceived challenges faced at HWCs and suggested solutions for betterment of HWCs.

CONCLUSION: In this present study, majority of the study participants were satisfied with the services offered at HWCs and with the health care providers working at the HWCs. Prompt allocation of resources, adequate manpower and logistics to HWCs is need of the hour for more efficient functioning of these centres.

KEY-WORDS: Health and Wellness Centres, Service Utilization, Patient Satisfaction, Challenges in health care.

Fetal and Maternal Outcomes In Pregnant Women With Pregnancy-Induced Hypertension, Availing Maternal-Child Health Care In Cuddalore, Tamilnadu, South India

Dr. S. Gauthaman, Dr. R. Meera, Dr. V. Karthiga

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Global prevalence of Pregnancy Induced Hypertension (PIH) and Preeclampsia was 4.6% (95% CI 2.7-8.2), and 1.4% (95% CI 1.0-2.0)(1). In India, the incidence of preeclampsia was found to be 8-10% among the pregnant women. PIH was found to be responsible for the the hypertensive disorders of pregnancy were responsible for 14 % of all maternal deaths. (2) Among the PIH spectrum, the most dangerous one was pre-eclampsia, which is the onset of new hypertension with significant proteinuria during pregnancy. The management was by the use of antihypertensive therapy to control blood pressure and steroids so that the fetal lung maturity was accelerated before 34 weeks and better foetal outcome. (3) Concentrating on the community intervention along with the facility-based intervention would reduce the mortality and morbidity.

METHODS: We analyzed the secondary data from the monthly program reports (aggregate

data) from January to December 2021. We described the number of women screened through an epidemic curve and choropleth maps. In addition to screening coverage, we also estimated the proportion of women who have abnormal findings. The proportion of the women who underwent antenatal visit and had abnormal findings was determined. We used Microsoft Excel and Epi Info version 7.2 for analysis and Data wrapper for data visualisation.

RESULTS: The coverage of screening for Antenatal checkup was 98%. Marungur and Komaratchi blocks had the lowest coverage.

CONCLUSION: The proportion of women who returned for late antenatal visit have a significant gap in program implementation that needs urgent attention.

KEYWORDS: Pregnancy induced hypertension, Eclampsia, HELLP Syndrome, Stillbirth.

An Epidemiological Study of Malnutrition Among Anganwadi Centre Children's In Ariyalur District, India

Dr. V.C. Hemachandgandhi, Dr. R. Muruganantham
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION: A child is future of nation. Malnutrition is a big public health problem in India as it can be attributed for more than half (54 percent) of all under five mortalities in India. Malnutrition is both under nutrition and over nutrition ranging from severe nutrient deficiencies to extreme obesity. Globally, more than one third of child deaths are attributable to under nutrition. We aimed to study the distribution of Malnutrition using newly developed WHO growth Standards in school children in Ariyalur District.

AIM AND OBJECTIVE: 1) To find out the prevalence of malnutrition among Anganwadi centre children's using newly developed WHO growth standards.

MATERIAL AND METHODS: A cross sectional study was carried out over a period of three months in Ariyalur district for 822 children with the age group of 6 months to 6 years. Data collection was done by a team of RBSK medical officers using a structured questionnaire which includes children name, age, sex, Height, Weight, Mid Upper arm Circumference and WHO growth chart for under five children. After getting consent from parents the data was collected in Anganwadi centres in six blocks of Ariyalur district. As per convenient sampling 878 children were examined for malnutrition.

RESULTS: Out of 878 children, 451(51.4%) males and 427(48.6%) females. Stunting among under five children's according to their Height for age, total 112(12.8%) children are affected by severe stunting, in that 57 female (13.3%) are higher than the male 55(12.2%). Regarding Mid upper-arm Circumference, total 46(5.3%) children affected with Malnutrition in that 4 (0.5%) children affected with Severe acute malnutrition and 42 (4.8%) were affected with moderate acute malnutrition. Totally 141 (16.1%) children having severe acute malnutrition, in that female child 77(18%) are affected more than the male 64(14.2%) in this study.

CONCLUSION: There were gaps in the status of growth monitoring activities in AWCs that needed to be addressed immediately. The importance of accurate growth monitoring should be emphasized in all health sectors. It is recommended that ICDS staff attend regular workshops to improve and strengthen their knowledge and practices in growth monitoring. Furthermore, the provision and upkeep of logistical support for anthropometric assessments should be strictly enforced.

KEY WORDS: Malnutrition, Anganwadi centre; Ariyalur

Usage of Iodised Salt in Hilly Areas of Attur; A Boon to Prevent Iodine Deficiency Disorders, Tamilnadu, India 2022

Dr. Pradeep A.S., Dr. B.R. Jemini, Dr. S. Isai Priya
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Iodine Deficiency Disorders are a major Health problem worldwide. In India, it is estimated that more than 350 million people are at risk, while the number of persons suffering from IDD is above 71 million. Realizing the magnitude of problem Government of India has launched National Iodine Deficiency Disorders Control Programme with one of its objectives is to supply iodized salt in place of common salt. The objective of this study is to evaluate proportion of population consuming iodized salt and concentration of iodine in salt in households of hilly areas of Attur Health Unit District.

METHODS: A cross-sectional study involving 2 hamlets each covering 350 houses in hilly areas of Yercaud, Karumandurai, Arunuthumalai was conducted in the month of October 2022. 50 houses in Aladipatti and 40 houses in Periyavelampatti belonging to Arunuthumalai hilly area, 50 houses in Thalveethi and 50 houses in Kalakadu belonging to Karumandurai area, 100 houses in Jerinakadu and 60 houses in Longilpettai

belongings to Yercaud areas were surveyed. Presence of Iodine in salt was checked using rapid MBI KITS. Minimum acceptable level of iodine at consumer is 15ppm.

RESULTS: 350 houses were surveyed in 6 villages. All houses were using iodized salt, and all are using packaged salt. But in 16 houses (4.6%) there was <15ppm of iodine present which is distributed as in Aladipatti village 2 houses (4%), in Periyavelampatti 1 house (2.5%), in Thalaveethi village 3 houses (6%), in Kilakadu village 2 houses (4%), in Jerinakadu village 5 houses (5%), in Longilpettai 3 houses (5%). Iodized salt from these houses showed presence of about 7ppm of iodine which doesn't meet the acceptable level.

CONCLUSION: Most of the population are utilizing iodized packaged salt. Further studies to assess prevalence of IDD will be of great value.

KEYWORDS: Iodized salt, hilly areas, Iodine Deficiency Disorders

Level of Physical Activity and Its Associated Factors Among Elderly Population Residing In An Urban Area of Chengalpattu District, Tamil Nadu

Aarathi S, Karthik R. C, Vikram.A, Ezhilvanan M

TAGORE MEDICAL COLLEGE AND HOSPITAL, RATHINAMANGALAM, CHENNAI

BACKGROUND: According to WHO, physical activity is “any bodily movement produced by skeletal muscles that requires energy expenditure (such as activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational activities - dance, yoga, tai chi)” and people who are insufficiently active have a 20% to 30% higher risk of dying than their counterparts. Physical activity helps older adults (those over 60) avoid falls, injuries sustained from falls, and functional and bone health decreases. This study seeks to develop a profile of physical activity among old persons in recognition of the growing concern regarding the necessity of better understanding the level of physical inactivity leading to the increase in the burden of NCD among elderly people and factors associated with it.

OBJECTIVES:

1. To assess the physical activity levels among elderly people in Households of Tambaram Corporation of Chengalpattu District
2. To identify the factors associated with physical activity levels among elderly people in Households of Tambaram Corporation of Chengalpattu District.

METHODS: A community based cross-sectional study was done among 270 elderly people (>60 years age) residing in wards of Tambaram Corporation during July 2022 to September 2022 by adopting multistage stratified random sampling method. Data collected with standardized WHO STEPS questionnaire were entered and analyzed using SPSS 21. Chi square test were performed to identify the factors associated with physical activity.

RESULTS: Mean age of the study participants was 68 ± 7 years. Majority of study participants (61.9%) were physically inactive. As people get older, their levels of physical activity decline, and women (40.4%) are more physically inactive than men. Obesity, occupation, marital status, and fruits and vegetables serving intake per week were all significantly associated with physical activity levels.

CONCLUSION: The levels of physical activity were drastically low among urban elderly. More specifically, targeted interventions are required to raise their levels of physical activity during leisure time

KEYWORDS: Physical Activity, Elderly, WHO STEPS questionnaire.

A Cross Sectional Study to Assess The Health-Related Quality of Life Among Rheumatoid Arthritis Patients in a Tertiary Care Hospital in Chennai

Amirtha Varshini M, Anjuka L, Dr. Anbuselvan, Dr. T. Susila,
Dr. M. Hema, Dr. P. Seenivasan

STANLEY MEDICAL COLLEGE, CHENNAI

INTRODUCTION: Rheumatoid arthritis (RA) is a progressive articular disease, characterised by persistent synovitis, systemic inflammation, and autoantibodies. It causes joint pain, swelling, tenderness, warmth, redness, stiffness and loss of joint motion. These patients remain unsatisfied due to ignorance, delayed presentation, long duration of therapy, financial constraints, ineffective motivation, and counseling.

METHODOLOGY: A Hospital based cross sectional study of Rheumatoid Arthritis patients attending Rheumatology OPD. Participants were selected consecutively till the required sample size 106, from July 2022 to September 2022. Information was collected by face-to-face interview. Data was analyzed using SPSS software version 16. p value <0. 05 was considered statistically significant.

RESULTS: Our study stated that, majority of the study participants were females (84%).

92. 5% had problem in mobility, 90. 6% had problem in self-care, 98. 1% had problem in doing usual activities, 86. 8% had anxiety. 4.7% had suicidal ideation. 32. 7% had large impact on their job. 28. 6% people had to quit their job. There is a significant mean difference in occupation and job impact between male and female. Males have higher mean value in occupation (p=0. 000). Females have a higher mean value in job impact (p=0. 001).

CONCLUSION: Medical intervention has provided good relief of pain to the patients. Majority had problems in mobility, carrying out usual activities, job impact, anxiety which affects quality of life by physical, mental and economic means. Early diagnosis, regular treatment, proper counseling and follow up is necessary to manage the condition, minimize progression, preserve joint function.

KEYWORDS: Rheumatoid arthritis, Health related quality of life, Mobility, Job impact.

A Cross Sectional Study On Dietary Diversity and Its Association With Nutritional Status Among Elderly In Rural Area of Chengalpattu District

Kokilaa GL, Vinoth Gnana Chellaiyan, Aarthya A
CHETTINAD HOSPITAL AND RESEARCH INSTITUTE, CHENNAI

BACKGROUND: Old age and nutrition have become a Global challenge. Inadequate dietary intake arises mostly as a result of physiological changes which contributes to malnutrition. Studies conducted in India focused mainly on Nutritional status of Infants and Pregnant women, leaving out this important age group which is also vulnerable to malnutrition. The focus of this study was to find out the dietary diversity and its association with nutritional status among elderly in Chengalpattu district.

METHODS: It is a community based cross sectional study conducted among 200 elderly participants aged above 60 years from three villages in Chengalpattu district by Simple random sampling. A semi- structured questionnaire obtained from Food and Agricultural Organization for measuring Individual Dietary Diversity Score were used to find out the Dietary Diversity. Nutritional status was assessed by MNA tool and Anthropometric indices. The collected data was entered in Microsoft office Excel and analysis was carried out using Statistical Package for Social Sciences (SPSS) version 21. Chi-square tests were used

to find out the statistical significance.

RESULTS: The Mean (SD) age of the study participants was 70 ± 5.74 years. Among total study population, majority were females (52.5%), and males comprise (47.5%). The mean dietary diversity score was 7.2 ± 1.8 and 33% of respondents with dietary diversity score below the mean value was considered to have Inadequate dietary diversity. Nutritional assessment based on WHO BMI standards revealed undernutrition among 21.5% of respondents while 60% were in the normal weight. Chi-square revealed statistically significant association between Dietary Diversity and Nutritional status (p value=0.000)

CONCLUSION: Present study found out that most study participants were consuming a diverse diet and those subjects with better dietary diversity score had their Body Mass Index in the normal range. This clearly indicates that adequate dietary diversity can contribute to attainment of optimum nutritional status.

KEYWORDS: Dietary diversity, Nutritional status, Elderly

Nutritional Knowledge Assessment of Anc/Pn Mother's In Kanchipuram – District Cross Sectional Study

Dr. Gangadhar

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION: Nutrition is Basically very Essential for Both Physical and Mental Health to Human Body. Balanced and Perfect measured Nutritions are provide to Good Physical and Mental Health. 6 Major Nutrients we are getting from foods such as Proteins, Carbohydrates, Lipids, Vitamins, Minerals and Water. Nutrition is a Critical part of Physical and Mental health development. Global burden of Malnutrition is very Serious and lasting for individuals, their families, Communities and Countries.

OBJECTIVES: To assess the Nutritional knowledge among the ANC mother's and PN mothers.

METHODOLOGY: This activity is conducted from 3 ICDS Centre in Kancheepuram District. Totally 75 Children's and 75 Mothers are participated the above METHODOLOGY activities.

RESULTS: The entire Study are given about Birth weight of Children, weight growth status of the Children up to 60 months. Children

Mother knowledge during ANC time, PN time, all vaccination, all essential Nutrients, common Communicable Diseases. Compare that 3 ICDS Centre Records, totally 75 Children's Registered. All the children Birth weight is above 2.700 kg at Birth time. So totally above 93% of child weight is normal Birth weight. Similarly, some Questionnaires collection from Children Mother in 3 ICDS Centre area. Almost 87% child Mother's (ANC Mother, PN Mother, below 6 Years child Mother) knows about knowledge during in ANC, PN time, Child Vaccination, Feeding system after the 6th Month, importance about Nutrition, Natural Organic Diet. All the mothers are well known about importance of common communicable Diseases, Preschool Education.

CONCLUSION: This study is revealed 0-6 years child weight assessment at ICDS centre in rural areas. Further this study revealed below 6 years child mother's Nutritional knowledge, Health knowledge and Vaccination knowledge in rural areas.

Health Seeking Behaviour for Gynecological Morbidity – A Community Based Study

Dr. D. Vanitha, Dr. V. Suresh, Dr. M. Anitha Rani, Dr. Shanthi Edward
SRMC & RI, CHENNAI

INTRODUCTION- Reproductive ill health causes 36.6% of total disease burden among reproductive age group women globally. Appropriate understanding of health seeking behavior could reduce delaying of diagnosis and improve treatment compliance and health promotion strategies.

OBJECTIVES- To assess

1. Health seeking behaviour for gynecological morbidities among ever married rural women of reproductive age group.
2. Association between health seeking behavior for gynecological morbidities and selected socio-demographic factors.

METHODOLOGY- Study design and period: cross-sectional study between August 2013 to January 2014, Study place: Rural areas of Poonamallee block, Thiruvallur district, Tamil Nadu, Study population: Ever married women of reproductive age group (15-49 years), Sampling method: Two-stage cluster sampling. Data collecting tool and technique: Validated questionnaire through interview technique.

RESULT - Among 330 women, 228(69.1%) had any one gynecological morbidity. Among

women with gynecological morbidities 97(42.5%) had sought health care. Among women with gynecological morbidities 61 (26.8%) were having health seeking behavior towards private health care facilities, 19(8.3%) towards government health care facilities and 17(7.5%) towards indigenous centers. Higher percentage of women, with less than 35 years of age (OR2.4), with less than 15 years of marital life (OR1.4), who living in nuclear family (OR1.9) and living as home makers (OR 3.2) are having health seeking behavior, compared to their counterparts. This was confirmed by logistic regression.

CONCLUSIONS: Health seeking behavior for gynaecological morbidities among reproductive age group rural women was low. Awareness regarding availability of public health care facilities is needed. This study findings help to implement and execute community health programs.

KEYWORDS - gynecological morbidity, reproductive age, health seeking behavior, reproductive health

Meet The Meat To Eat

S. Sandhya Bharathi

GREATER CHENNAI CORPORATION

BACKGROUND: Section B: Lessons from the field – Greater Chennai Corporation, for providing a clean and hygienic meat, Greater Chennai Corporation has 4 slaughterhouses in Chennai. Slaughterhouses provide an opportunity for inspection and evaluation of fitness for human consumption as it allows checking the antemortem and postmortem of the meat by the veterinary assistant surgeons.

METHODS: It is the observational study of the unwholesome meat raid program Under Greater Chennai Corporation at present four slaughterhouses were functioning in different zones those places were visited and inspected.

RESULTS: As a result of observation in the field (slaughterhouse) Greater Chennai Corporation were inspecting all slaughterhouse to give a clean and hygienic meat and unwholesome meat were discarded properly.

CONCLUSION: Unwholesome meat raid program – meat raid will be conducted in the zone-1 to zone- 15 with the team comprising

of sanitary inspector, sanitary officer, veterinary assistant surgeons and zonal health officer or if there are any complaints from public or reports in newspaper surprise raid will be conducted. By using Greater Chennai Corporation's dumping yard, the seized unwholesome meat will be completely buried and destroyed with proper sanitary measures. If any shops which were not following the rules will be given a strict warning or the shop license will be cancelled. As per the G.O.M.S No.122, R.D & L.A, dated: 23.01.1980, strict enforcement followed that no slaughter and sale of meat, beef, pork, chicken stall shops should work for these days that will be ensured by a team of Health official and Veterinarians through the inspection.

- Mahaveer Jayanthi
- Vadalur Ramalingar Ninaivu Nal
- Thiruvalluvar day
- Mahaveer Nirvan day

KEYWORDS: slaughterhouse, Greater Chennai Corporation, Chennai, unwholesome meat raid program.

Assessment of Nutritional Status and Its Determinants Among Under 5 Children In A Rural Area of South India

Miss. Shini Preetha Nirmalson

VMKMCH, SALEM

BACKGROUND: Malnutrition possesses a double burden in the forms of undernutrition and obesity worldwide. The most adverse form of human deprivation is undernutrition among under five children. A child who is underweight may be stunted, wasted or both. About 151 million children under 5 years of age (22.2%) were affected by stunting, 50.5 million (7.5%) children were affected by wasting and 38.3 million (5.6%) children were affected by overweight in the year 2017 globally.

OBJECTIVE:

To assess the nutritional status of under-five children

To identify the determinants of nutritional status among under-five children.

METHODOLOGY:

STUDY METHOD: Community based cross sectional study

STUDY POPULATION: Study population identified were Under 5 Children in field practice area of VMKMCH

SAMPLE SIZE: 330, Using the formula $N = \frac{Z^2 pq}{[L]^2}$ (where $Z = 1.96$, $p=28.3$, $q=71.7$, $L=5$) Adding 5% non-response rate.

SAMPLING METHOD Simple Random Sampling method

STUDY TOOL Data was collected using a pretested semi-structured questionnaire. The questionnaire consisted of the following information Sociodemographic characteristics, relevant antenatal, Intranatal and postnatal history, characteristics of the mother and anthropometric measurements (Height, Weight and Mid upper arm circumference).

RESULTS: Among the 330, under five children in the study 16.4%, 26.4% and 32% were found to be underweight, wasting and stunted respectively. There is a significant "P" value between Low birth and underweight, stunting of children

CONCLUSION: Improving the quality of services being provided to the children in Integrated Child Developmental Services.

Periodic health education programs emphasizing about the importance of breast milk, early initiation of breastfeeding, exclusive breastfeeding, proper time of initiation of weaning foods and detrimental effects of prelacteal feeds.

KEYWORDS: Malnutrition, Low birth weight, Health Education, Breast feeding

A Study to Assess The Awareness of Early Childhood Development Milestones Among Antenatal and Postnatal Women

Bharanidharan L, Durga Devi B, Gowrishankar KS, Dinesh Kumar M, Dr. Senthilarasi S, Dr. Shameena Rubaiya A, Dr. Seenivasan P

STANLEY MEDICAL COLLEGE, CHENNAI

BACKGROUND: There are 7,862,921 children with disability in the below 19 years age group as per 2011 census of India. Child development indicates advancement of child to reach its optimal potential in all areas of human functioning. A child's development can be assessed by certain indicators called "developmental milestones" which indicates the age at which children are expected to perform certain tasks. Mother's being primary caretakers lack of awareness about developmental milestones in them has led to minimum health seeking behavior, which has caused developmental delays in more than 2.5% to 3.5% children according to study in Kerala. These children also grow into adults with Autism, ADHD and other social and mental problems. This can be prevented will the help of policy makers in formulating and directing interventions at specific group. Therefore, this study is done to assess the level of awareness of early childhood development milestones among antenatal and postnatal women.

METHODS: A cross sectional study was conducted among 158 antenatal and postnatal women attending RSRM OPD between July-September 2022 using a structured questionnaire containing information on socio-demographic characteristics and developmental milestones of the child from the age of one month to the age of three years. Data was entered in

MS Excel and analyzed using SPSS16. Chi square test was used. Sociodemographic details showed no significant association with the level of awareness of ECDMs

RESULTS: A total of 158 primi women participated in the study. The mean total ECDMs awareness score was found to be only 3.66(+5.675). Mean awareness is very low. Overall knowledge of primi mothers on the milestones achieved early up to the age of 3 years is very less with a mean awareness of 0.59(+1.134) at the age of 2 months, 0.63(+1.120) at 4 to 6 months, 0.47(+0.924) at 7 to 9 months, 0.690(+1.172) at 10 to 12 months, 0.43(+0.757) by 18 months, 0.29(+0.610) at 2 years, 0.56(+ 0.943) at 3 years; particularly, Knowledge of milestones achieved at the age of two years (such as imitate household chores, correctly point out and name body parts in person or book).

CONCLUSION: Awareness among study participants regarding ECDMs was found to be very less. Intervention with the help of government programs to educate the mothers and other caretakers of children is extremely necessary to promote help seeking behavior for early diagnosis of developmental delays and early intervention in poor development related disorders like autism, ADHD etc.

KEYWORDS: developmental milestones, awareness, women, Chennai

A Study on Cognitive Development and Behavioural Problems Among Special Needs Children

Dr. Vigneshwar.K. S, Dr. Pankaj B Shah
SRMC & RI, CHENNAI

BACKGROUND: Special needs children have various health problems and most common is impaired cognitive development and behavioural problems. The cause and the management of behavioural problems in special needs children have not been established. It has been previously reported that some behavioural problems may be related with cognitive development.

OBJECTIVES: To assess the cognitive development and behavioural problems of the special needs children and assess the health seeking behaviour of the special needs children.

METHODS: The study was conducted among 46 special needs children at Special children home. After collecting basic socio demographic details, they were assessed for cognitive development and behavioural problems using 5-15R questionnaire for 2-5yrs & 5-17yrs and their health seeking behaviour using a semi structured questionnaire followed by General and Clinical Examination.

RESULTS: Out of these 46 special needs children, 69.5% were male and 30.5% were female. The mean age was 11.69 + 4.62 years.

In Cognitive development, problem in motor skills were present in 39.13% of children; lack of attention present in 45.65% of children; lack of perception presents in 60.86% of children; lack of memory present in 63.04% of children; problem in language present in 52.17% of children; problem in learning & problem-solving skills present in 67.39% of children. In Behavioural problems, problem in social skills present in 52.17% of children and emotional problems present in 17.39% of children Among them 37% seek Government Healthcare facility for cognitive development and behavioural problems. A referral advice was provided to necessary children.

CONCLUSION: A high proportion of the special needs children were having problems in motor skills, attention, perception, memory, language, learning & problem-solving skills, social skills and emotional problems which needed to be addressed. Interventions should be aimed at improving the cognitive development and behavioural problems of the special needs children.

KEYWORDS: Cognitive development, Behavioural problems.

A Cross Sectional Study On The Mental Health Status of Mothers With Children Under 14 Years of Age In Urban Areas of Theni

Pon Padmanabhan, Bosco Raja and Tamil Amuthu

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Mental health is one of the major public health concerns today. In recent years, the morbidity associated with mental illness has received a greater attention, particularly in gender specific determinants. Women, who play multiple active roles in their families experience stress at all levels. Mental health of mother plays most important role in growth and development of the children, but which was underestimated in the society.

METHODS: A descriptive cross-sectional study was conducted among 200 mothers having children less than 14 years of age residing in urban areas of Theni. Pretested pre structured interviewer administered questionnaire which includes sociodemographic details and Parental stress scale was used to collect data. By using systematic random sampling technique, data was collected from every third mother with child less than 14 years visited PHC for

outpatient or immunization services. Study area includes all 6 urban health centres of Theni HUD (Allinagaram UHC, Bommayakoundan patti UHC, Bodinayakkanur UHC, Periyakulam UHC, Chinnamanur UHC, Cumbum UHC).

RESULTS: This study showed 22% of the mothers were at moderate stress level. Correlation analysis showed that magnitude of stress is higher in mothers with a greater number of children and the level of stress is high among mothers from low-income family.

CONCLUSION: A preventive program including screening of mothers for stress along with sensitizing the need for identifying and seeking help in time will help them to have a better mental health.

KEYWORDS: (mental health, mothers, children less than 14 years)

Community Based Cross Sectional Study To Assess The Prevalence of Suicidal Risk Among Youth Slum Population in Chennai

Arulmozhi P, Sudharshini.S

OMANDHURAR GOVERNMENT MEDICAL COLLEGE AND HOSPITAL,

BACKGROUND: Suicide is the second leading cause of death among 15–29-year-old persons globally. According to the 2021 NCRB report, Tamil Nadu reported second higher number of suicide deaths.

Youth in slums are more vulnerable sections and their problems need to be addressed immediately.

OBJECTIVES: To estimate the prevalence of Suicidal risk and its associated risk factors among youth living in slums of Chennai.

METHODOLOGY: Community based cross sectional study conducted among 100 youth (15-24 years old) population living in Chennai slums by the year 2019. Multistage random sampling technique was used to choose study population. Study tool: Semi structured Validated questionnaire which includes Suicide Behaviors Questionnaire-Revised (SBQ-R). Data was analyzed in SPSS Version 16. Chi square test was done to find out the association

between ‘Suicidal risk Behaviour’ and risk factors. p value <0.05 was considered as significant. Multiple logistic regression analysis was done for factors found to be significant in bivariate analysis and calculated adjusted odds ratio with 95% CI. Institutional Ethical committee approval got from Madras Medical College.

RESULTS: Prevalence of suicide risk was around 35%. The potential risk factors for NSSI include lower socioeconomic status, lower educational status, history of self-injury, living with single parent/alone/ friends, family history of Alcoholism and Substance abuse

CONCLUSION: The study findings help to create awareness and increase the knowledge about the factors associated with suicide. Need to develop new programs and policies and thereby reduce the burden of suicide in the community.

KEY WORDS: Suicide risk youth, Chennai slum.

Prevalence of Unrecognized Depression Among Diabetic Patients In A Rural Area of Tiruchirappalli District, Tamilnadu

Sriram T, Subramani A,

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND:

- Relationship between DM and depression has been investigated by many researchers.
- The presence of depression amongst people with diabetes is cause for concern as it prevents initiation of treatment for these concomitant conditions and allows frustration to build up in patients, thereby contributing to poor clinical outcomes.

METHODS:

- **Methodology:** 67 diabetic patients were detected from the screening survey conducted 4 months back April 2022. In the survey, 1005 subjects were selected from a Primary Health Centre population of 18000 by systematic random sampling. All subjects were diagnosed during the survey by fasting and postprandial blood glucose tests. The patients were traced after 4 months September 2022 and screened for depression. Those found to be suffering from depression were referred for psychiatric help from specialist.
- **Statistical Analysis:** Data was analyzed using SPSS (version 17). Chi-square and fisher's exact tests were used and accepted statistically significant if P value was less than 0.05.
- **Ethical Considerations:** The participants were explained the

purpose of the study. The information collected was kept confidential and their informed consent was taken before taking information. Ethical clearance was obtained from Institutional Ethical Committee

RESULTS:

- There were 28 (41.8%) males and 39 (58.2%) females participated in the study. Mean score from PRIME MD came out to be 2.88 + 3.27.
- 9 (13.4%) subjects were found to have depression.
- Out of these 9 patients, 2 were previously diagnosed cases of depression.
- 7 patients were newly diagnosed by researchers.

CONCLUSION:

- Studies have estimated the prevalence of depression in community samples have varied from 1.7 to 74 per thousand populations.
- All diabetic patients should be screened for presence of depressive symptoms and appropriate management should be undertaken.

KEYWORDS: Diabetes, Depression, Tiruchirappalli

Evaluation of Cause of Death Among Adult Tb Patients Registered For Treatment Under The National Tuberculosis Elimination Programme In Chennai District, Tamil Nadu Using Verbal Autopsy

Bhavani Perumal Kannabiran, Prathiksha Giridharan, Kannan Thiruvengadam, Dina Nair, Lavanya Jayabalan, Padma priyadarsini Chandrasekaran.

ICMR - NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

INTRODUCTION: Reduction in mortality is an indirect measure of quality of tuberculosis (TB) care. WHO defines TB deaths as the number of TB patients dying during treatment, irrespective of the cause? The purpose of the study was to determine the cause of deaths among TB patients on treatment at National Tuberculosis Elimination Programme centres in Chennai district.

METHODS: A prospective observational study was conducted between January 2020 and August 2021. Verbal Autopsies (VA) was conducted using validated questionnaire based on WHO 'International standard verbal autopsy questionnaire 3 (Version 1.4.2 (2016)). Death Certificate and Hospital records were also perused to determine the cause of Death.

RESULTS: Out of 300 deaths notified, 73% were males. The mean age of the deceased was 55 (5 – 87). The median time taken for death notification was 5[IQR 2 – 11] days and 4[2 – 11] days from notification to conduct of VA. For 59 % of patient deaths (176/300), TB

was the underlying cause of death and 124 (41%) had non-TB related causes. The median time to death from time of treatment initiation was 48 days. A higher proportion (81%) of deaths was observed in those who had the pulmonary form of TB. Major co-morbidities (Non-TB Causes) which lead to death among TB patients were heart disease (17%), Cancer (15%) followed by renal diseases (12%) and death due to neurological causes (10%). There were 13 (11%) COVID Deaths in this cohort of deceased TB patients.

CONCLUSION AND RECOMMENDATIONS:

A significant proportion of deaths were due to non-TB causes. This would have been misclassified as TB deaths if Verbal autopsy was not conducted. National TB Elimination Programme should strictly implement the conduct of Verbal autopsies to document the actual cause of death to determine timely interventions to prevent early deaths.

KEY WORDS: Tuberculosis, Verbal Autopsy, cause of Death

Development and Field Trial of Mobile Phone-Based Diagnostic Decision Support System For Screening, Management and Early Referral Services of Common Non-Communicable Diseases-A Pilot Study

Dr. S Sangeetha, Dr. Rubesh Sharma.N. P, Dr. I J Nirmal Sujitha

VINAYAKA MISSION'S KIRUPANANDA VARIYAR MEDICAL COLLEGE & HOSPITAL,
VINAYAKA MISSION'S RESEARCH FOUNDATION

INTRODUCTION: Non-communicable diseases (NCDs), including Diabetes, Hypertension, cardiovascular and cerebrovascular diseases etc. are collectively responsible for almost 70% of all deaths worldwide, that kills almost 41 million people each year. Early detection, screening, appropriate management, good compliance for treatment and palliative care are key components of the response to Non-Communicable diseases. So, this study aims to develop and validate mobile phone-based application of a medical diagnostic decision support system (E-MDDSS) for screening, management and early referral services of four NCDs- Diabetes, Hypertension, Cardiovascular disease and Stroke by the primary health care providers in rural and tribal areas of Tamil Nadu.

METHODS: A New Software for diagnostic decision support system, enabled with smart phone using Android Operating System was developed and diagnostic validity study was planned to assess the efficacy of this newly

developed mobile based software application. A field trial, pilot testing of the application was conducted, among 30 study participants, who were all adults above 30 years and who didn't have any history of Diabetes or Hypertension. The study was carried out in Rural Health and Training Centre - attached to VMKVMCH, Salem. The data was entered in MS Excel and analyzed using appropriate statistical methods. The field trial is in process.

RESULTS OF PILOT STUDY: 23% of study participants were newly diagnosed to have Diabetes and 30% of study participants were newly diagnosed to have Hypertension.

CONCLUSION: This Mobile application will be a useful smartphone-based software that provides diagnostic decision support for screening, management and early referral services of common non-communicable diseases by primary health care providers.

KEY WORDS- Medical Diagnostic Decision Support System (E-MDDSS), NCDs,

Increase In Number of New Case Detection In The Previous Years Leads To Significant Reduction In Disabilities Due To Leprosy – Retrospective Analysis of Chennai District New Leprosy Cases Reported Over 12 Years Period From 2010-2011 To 2021-2022

Dr. V. Dharmalingam

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND & OBJECTIVE Deformities due to leprosy is a preventable one through early new case detection and proper treatment on time. The primary objective of the study is increased new case detection in the previous years will lead to decrease in number of deformities due to leprosy in the subsequent years.

MATERIALS AND METHODS- The study included 3551 new leprosy cases reported from 2010-11 to 2021-22 in Chennai district and new deformity patients at the time of diagnosis for those 12 years period.

RESULT- The study included 3551 leprosy patients from 2010 - 2011 to 2021-2022 and the deformity patients reported in those years. The highest number of new cases reported in the year 2010-2011 with 647 cases. The

highest no of deformity cases reported in the year 2018-19 with 21 cases. The disability rate in Chennai district ranges from 0.13 to 3.02 per 1 million populations during the study period. The deformity rate is in decreasing trend from the year 2019-2020 which is less than 1 per million (NLEP Goal). This is due to increase in new case detection, proper treatment and follow up during the previous year.

CONCLUSION- When a greater number of new leprosy cases were detected in the previous year and the status quo is continues number of cases with deformities due to leprosy is in the decreasing trend.

So, it is stressing the need for new case detection and proper treatment with Multi Drug Treatment (MTD) to prevent deformities due to leprosy which is the primary goal of National Leprosy Eradication Programme (NLEP) activities.

Prevalence of Worm Infestation Among Icds Children In Thiruppukuzhi Block, Kancheepuram District – Cross Sectional Study

Dr. Shanmuga Sundaram, Dr. Priya Raj, Dr. K Anitha
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Intestinal parasites are widely prevalent in developing countries, probably due to poor sanitation and inadequate personal hygiene. High rates of infestation are seen in rural areas due to poor sanitation, contaminated water supplies and high population densities. Helminthic infections are the main cause of loss of appetite, anemia, and malnutrition in children. The purpose of this epidemiological study was to determine the prevalence rate of intestinal helminths among ICDS children and to treat the children and their respective family in Kancheepuram district, Tamil Nadu.

METHODOLOGY: A ICDS based cross-sectional study was conducted among 2–5-year children attending the anganwadi centres of Thiruppukuzhi block, Kancheepuram district which was identified by multistage sampling method. Out of 2504 children, 175 children were determined as sample size and 35 ICDS children of each phcs were selected by simple random sampling method. Sociodemographic, behavioural and other associated factors were collected using a structured questionnaire.

One stool sample was collected from each participant and examined using direct (saline/iodine wet mount) and concentration (floatation/sedimentation) microscopic techniques and the samples were cross verified by Microbiologist of DPH Laboratory. Positive samples were used to determine the prevalence of worm infestation.

RESULTS: Out of 175 children who provided the stool sample, 12(6.8%) had at least one of the parasitic infections and among them 7 (4%) had Soil Transmitted Helminth infection (STH) and 5 (2.8%) had intestinal protozoan parasites. Parasitic infection is marginally higher among 2-3 years age group (4.5%) compared to 3-5 years age group (2.28%). Nearly 60% of parasitic infections were caused by STH. Nearly 33% of children had history of practicing open-air defecation and nearly all the children who practiced open air defecation had any one of these worm infestations and 34% had history of overcrowding.

KEY WORDS: ICDS, Kancheepuram, Thiruppukuzhi block, cross sectional study, soil transmitted helminths, intestinal protozoan parasites.

Study On The Utilisation of Antenatal Care Services By Pregnant Women During Covid 19 Pandemic In Urban Health Centre At Metropolitan City

Dr. Nikhil Thorat. Dr. Abhiram Kasbe

T.N.MEDICAL COLLEGE & B.Y.L.NAIR HOSPITAL, MUMBAI

BACKGROUND- The availability and accessibility of health care services were severely affected due to the COVID-19 pandemic. Mother and child health is one service that could never be stopped but might have been impacted. Study aimed to assess participant's utilization of ANC, PNC, and newborn care services and the utilization of benefits of the government scheme by the participants during the COVID-19 pandemic.

METHODOLOGY- The study was conducted in the field practice area of the Urban Health center of our medical college. One hundred women having a history of term pregnancy between June 2020 -21 were included in the study by convenient sampling. One-to-one interviews were conducted using a semi-structured questionnaire to assess the utilization of MCH services like no. of ANC visits, place of delivery, etc. Study Data was compared with

NFHS 5 data on MCH using an appropriate statistical test.

RESULT- We observed that 36% of the pregnancies were unplanned. Only 53% were able to complete four antenatal visits. 28% of the mothers didn't receive iron and folic acid tablet. 39% of women delivered by cesarian section and 45% of the pregnancies were complicated. Compared with NFHS 5 data, we found that number of cesarean section deliveries has significantly increased while utilization of benefits from Government schemes, iron folic acid taken & TT taken by participants has decreased during this period.

CONCLUSION- We found that the pandemic severely impacted MCH services. Strategies must be devised to mitigate such disruptions to MCH care during future public health or political emergencies.

KEYWORD:- COVID-19, ANC, PNC, MCH

A Study to Assess The Obstetric Outcomes of Teenage Pregnancy In Selected Blocks of Dharmapuri District

Dr. Karthika. A

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND- Teenage pregnancy (15-19yrs) continues to be an important social issue in the country. Nearly 44% of districts in India reported high percentage of teenage pregnancy. In India Tamilnadu accounts for 37% (urban 36.5% & Rural 63.5%) of the Teenage Pregnancy and northern districts registered more for teenage pregnancy. Pregnant teenagers face obstetric, medical and social issues compared to other women who gave birth between 20 to 30 years of age.

OBJECTIVE- To Assess the Obstetric Outcomes of Teenage Pregnancy in Selected Blocks of Dharmapuri District

METHODOLOGY-

1. Target Population: Newly registered teenage pregnant women at selected blocks of Dharmapuri district
2. Sampling Technique: Purposive sampling technique
3. Sample Size: 150
4. Study Setting: Study was conducted in Dharmapuri,
5. Harur, Karimangalam, MMorapur, Nallampalli, Palacode, Pappireddipatti, Pennagaram and Dharmapuri urban blocks of Dharmapuri district
6. Study duration 12 months

7. Data Collection: Validated Questionnaire was used.

RESULTS: The study showed the percentage of teenage mothers according to the age group were 2%, and 10% in 15 and 16 years respectively. The proportion of stillbirths was higher (5.1%) among the teenage pregnancies. The proportion of Anaemia, Pregnancy Induced Hypertension, were found to be 45% and 15% respectively. Among the babies born to teenage mothers 39% were found to be low birthweight (less than 2.5 kg). The teenage mothers had a proportion of 1% preterm delivery. Prevalence of teenage pregnancy among the degree holders was 3% and no education was 9% respectively.

CONCLUSION

1. School and College based sexual education programs are needed that will provide the students with accurate information about pregnancy, contraception and sexually transmitted diseases
2. In summary all the persons including parents, schoolteachers, social workers government staffs should work as a team to prevent teenage pregnancy.
3. Task force committee along with other departments including social welfare, Integrated Child Developmental Services, Department, Child

A Retrospective Study To Evaluate The Epidemiological Determinants of Maternal Mortality In Aranthangi Hud- A Verbal Autopsy Based Study

Dr. Muthamil, Dr. Dhinesh Vikraman

INTRODUCTION- Every woman is indispensable by the role she plays in a family and also in the society. Motherhood even though a natural process is not without risk. Even with improved scientific advancement and modern technology, overcoming the social causes contributing to maternal mortality is a huge task. The current maternal mortality rate of India being 103 per 1 lakh live births which is far from the target 75 set by the sustainable development goal. Hence, we planned to evaluate the maternal mortality of Aranthangi HUD to suggest measures to improve MMR.

METHODOLOGY- This study was a retrospective study in Aranthangi HUD during the month of October 2022. We analyzed our maternal records from 2017 – 2022.

RESULTS- The majority of maternal deaths happened in the age group 20-25 years of age (40.7%). Most of the deaths

occurred in multigravida women(55.6%), in rural women(92.6%),in below poverty line women(66.7%). Eclampsia contributed to most of the deaths among the direct causes(14.8%), Anemia contributed to majority of deaths(25.8%) among indirect causes. Type 1 delay (14 deaths) was behind majority of deaths, next was type 2 delay. MMR trends downward from 2017 to 2020. From 2020 there is a sharp spike due to viral pneumonia deaths, then from 2021 there is dipping trend.

CONCLUSION: The majority of maternal deaths occur in rural areas, illiterate and people from Low SES. Eclampsia and hemorrhage contribute to majority of maternal deaths. Increasing awareness among the public regarding maternal health and common medical disorders that can occur in pregnancy can help in reducing type 1 delay. Enriching tertiary care hospitals with advanced technologies can help in reducing type 3 delay.

A Retrospective Study To Find The Determinants of Low Birth Weight In Gandarvakottai Block, Aranthangi Hud

Dr. S. Sri Vinnarasi, Dr. Dhinesh vikraman.B.P, Dr. Manimaran, Dr. Bharat kumar

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND:

Low Birth Weight (LBW) is defined as the birth weight of a neonate below 2500 g at birth. In Gandarvakottai Block of Urandangi HUD, we had 17.57% incidence of low birth weight neonates in the past one year (April 2021 to March 2022). Among the 6 blocks of our HUD, since the LBW incidence is relatively high in Gandarvakottai Block, our study aims to analyze the predominant causative factors leading to low birth weight neonates among the newborns in this particular Block.

METHODS: Our study is a retrospective study and in here, we analyze the data about Low Birth Weight neonates recorded in the last one year (April 2021 to March 2022) in Gandarvakottai block, Aranthangi HUD.

RESULTS: Out of 1275 livebirths from April 2021 to March 2022, low birth weight accounts about 17.15%. Out of 219 low birth weight babies, 4.6% were very low birth weight babies and 9.1% were preterm babies. Among the

low birth weight babies 63% of mothers were anemic, 38.4% of mother had other associated conditions like elderly gravida(2.3%), Rh negative(1.8%), short primi(1.8%), Pregnancy induced hypertension(1.4%), Gestational diabetes(0.9%), less than 2 interpregnancy interval (17.8%), underweight mothers (16.4%), mothers with high order birth 11.4%) and teenage mothers(4.6%).

CONCLUSION: In order to decrease the incidence of low birth weight babies, we suggest framing various interventions like mother nutrition, avoiding teenage pregnancy and high order birth, appropriate care for maternal medical complication and proper antenatal care at primary health level to bridge and circumvent any gaps which appear to be directly linked to the birth of low birth weight newborns.

KEYWORDS: Low Birth Weight, High Order Birth, Medical Complications, Teenage pregnancy.

Study To Access Improvement In Knowledge of Ncd Protocols In Mtm Care Providers

Dr. Neppolean Krishnan, Dr. Prathap and Dr. Rajesh
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: STEP SURVEY on Non communicable diseases (NCD) says that expected prevalence of hypertension is 33.9%, Diabetes is 17.67% and both is 10.5%. To identify the hidden NCD cases and provide adequate care to the existing cases Tamilnadu Government launched a special program named “MAKKALAI THEDI MARUTHUVAM (MTM)” MTM is the most important flagship program of Tamilnadu government to address the burden of NCDs and to prevent morbidity and mortality in the community. The key care providers are NCD Staff nurses, Mid level health providers (MLHP) and Women health volunteers (WHV). This Study was conducted among these MTM care providers to assess the improvement in knowledge of NCD protocols following an NCD training session.

METHODS: Out of six blocks in Paramakudi HUD Muthukulathur was selected by simple random sampling method. All the 51 MTM care provider’s knowledge on NCD protocols was assessed by self-administered questionnaire. Then training on this protocol was given by

trained medical officer. Post training knowledge was assessed providing the same questionnaire and data was analyzed.

RESULTS: Out of 51 participants, 20 scored above 90% and none scored 100% in pre training knowledge assessment. 33 scored above 90% and 9 scored 100% in post training knowledge assessment.

Pretest mean score was 20.80 with standard deviation (SD) of 4.13. Post test mean score is 22.57 with SD of 3.84. The increase in mean score of 1.765 by training was found to be significant by paired sample c test with $P < 0.05$

CONCLUSION: There is definite improvement in knowledge on NCD protocols in MTM care providers after an effective training session by qualified medical officers. This emphasizes the importance of periodical training for MTM care providers to improve the health of the community.

KEYWORDS: Maternal mortality rate, multigravida, Eclampsia, Anemia ,Hemorrhage,

A Study To Assess The Pre Disposing Factors of Pre Eclampsia Among An Mothers Diagnosed With Pre-Eclampsia In Krishnagiri Gh, Hosur Gh and Selected Phcs In The Krishnagiri District

Dr. Akila

BACKGROUND OF STUDY- In India, the incidence of preeclampsia is reported to be 8-10% among the pregnant women. According to a study, the prevalence of hypertensive disorders of pregnancy was 7.8% with preeclampsia in 5.4% of the study population in India. Hypertensive disorders of pregnancy occur in about 10% of all pregnant women around the world. Risk factors for pre-eclampsia include obesity, prior hypertension, older age, and diabetes mellitus. It is also more frequent in a woman's first pregnancy and if she is carrying twin's recommendations for prevention include: aspirin in those at high risk, calcium supplementation in areas with low intake, and treatment of prior hypertension with medications

METHODOLOGY

1. Study Design: A retrospective analytical research design.
2. Target Population: AN mothers diagnosed with Pre-Eclampsia
3. Sampling Technique: Purposive sampling technique
4. Sample Size: 150 AN mother with Pre-Eclampsia
5. Study Setting: selected GH and PHCs
6. Study duration: 3 months
7. Data Collection Method: Questionnaire.
8. Data Analysis Method: Mean, and Mean percentage.

RESULT- The demographic variable of study shows the maximum 83% of Preeclampsia and Eclampsia mother belongs to 20 to 29 years, 9% mothers were in the age of < 19years ,

7% of mothers were in 30 to 35 years of age and minimum of 1% mothers were >36 years . Based on parity in highest of 43% mothers were 2 nd gravid, 37% mothers belongs primi and 4 th gravida and 5 th gravida and more were 4% and 1% respectively

The study results shows that about 95 % mothers are having no family history of hypertension and only 9% mothers had it. 92 % of mothers having no previous obstetric history of HT. and 8% has it. About 47 % of mothers are having BMI 18.5 to 22.9 ,47 % of mothers having BMI 23 to 24.09 ,15 % of mothers have BMI 16 to 18.4, and 17% and 1 % mothers have BMI >25 <16 respectively 50% of mothers has HB 9 to 10.9 gm per dl ,45% of mother of has >11grms/dl and 5% of mother has 7% to 8.9 grams/dl. 97% of mothers were under regular intake of calcium supplements and 3% of mothers did not have it. 83% of mothers did not have any other complication whereas 17% mothers with other complications .Most of the 96% of mothers under regular antenatal checkup with govt. facility, only 4% of mothers went private. 89% of mother were PIH identified early before on set of any S/S and only 11% of mothers were identified later.

CONCLUSION - The study results suggest that identification of risk factors will enhance the ability to diagnose and monitor the women likely to develop preeclampsia before the onset of disease for timely interventions and better maternal and fetal outcomes. Further research is needed to understand more for the risk factors of Preeclampsia and Eclampsia with larger samples.

To Assess The Effectiveness of Lifestyle Modification Strategies In Lowering Blood Pressure Among Newly Diagnosed Hypertensive Patients At Sample Areas of Villupuram District, Tamil Nadu, India

Dr. K.Thamaraiselvi, Dr. R. Rajkumar

RATHINAAM COLLEGE OF NURSING, ARUPPUKOTTAL. VIRUDHUNAGAR DISTRICT.
C.S.I JEYARAJ ANNAPACKIAM COLLEGE OF NURSING, MADURAI.

BACKGROUND: WHO in 2013 reported the prevalence of hypertension was 40% in persons above 25 and causing 7.5 million deaths contributing one eighth of deaths in the year 2008. The aim of the study is to assess the effectiveness of lifestyle modification strategies in lowering Blood pressure among newly diagnosed hypertensive patients at sample areas of Villupuram district, Tamil Nadu, India.

OBJECTIVES: To evaluate the effectiveness of Lifestyle Modification Strategies (LSMS) in lowering BP by comparing the pre and post test BP within and between the control and experimental groups among newly diagnosed hypertensive patients.

METHODS: Quasi experimental design was conducted among 275 newly diagnosed hypertensive patients residing in two community areas in Tamil Nadu. Purposive sampling technique was adopted. LSMS has three aspects: brisk walking, yoga and dietary

approaches to stop hypertension (DASH) diet.

RESULTS: The pretest mean systolic and diastolic BP in the experimental group was 145.80 and 90.65 respectively. The posttest II mean systolic and diastolic BP in the experimental group is 122.61 and 80.65 respectively. The posttest II mean difference in systolic and diastolic BP is 23.19 and 10 mm Hg respectively which are statistically significant. The RMANOVA is 47.05 which is higher than the table value. It signifies the effectiveness of the LSMS is in lowering BP across the periods. The 'f' value (27.931, 7.657) in ANCOVA with the covariant drug compliance is more than the table value with respect to systolic and diastolic BP respectively establishing the effectiveness of LSMS in lowering BP.

CONCLUSION: Hypertension starts with young age, even in 20s. But, unlike others, once identified at an early stage, this condition is easy to control despite being a silent killer.

A Cross Sectional Study of Covid-19 Outbreak In Vellore District In Tamil Nadu, South India

Dr. S. Loganathan, Dr. P.G. Bhanumathi,

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: The novel coronavirus originated from the city of Wuhan in Hubei province in Southern China and caused a Pandemic rapidly spread across the world. Human coronavirus resulted in new global pandemic since December 2019. The World Health Organization (WHO) declared COVID-19 as a pandemic in March 2020. In India, the first COVID-19 positive case was reported in the state of Kerala in January 31, 2020 and by early March 2020, there was a surge in COVID-19 incidence in rest of the country. The first casualty due to COVID-19 in India was confirmed in the State of Karnataka on March 12, 2020. Subsequently, the Indian government imposed national containment on March 25, 2020 and after numerous changes in relaxation policies, containment is still in place to certain extent. India has reported three waves of COVID-19 outbreaks to date, the former from March 2020 to September 2020 and the latter from March 2021 to May 2021 and 3rd covid wave started mildly around January 2022. This study is done to describe the covid cases out break and its prevention strategies in the vellore district in Tamil Nadu,

South India. To describe the new covid cases through epidemic curve.

METHODS: This study is Descriptive Cross sectional study done in covid affected population in vellore district. To describe the new covid cases through epidemic curve. To describe the age group of covid cases affected, covid death and plan done for preventive measures.

RESULTS: Total number of covid cases in vellore district till date is 58180, total number of covid cases treated and discharged is 57012 and total number of death is 1163. Most of the covid cases affected in vellore under age group of 30 to 50 years. Death of covid cases in vellore District age group around 60 to 70 years.

CONCLUSION: A gap of 8-9 Months was observed between first wave, second wave and third wave in our country across various states. Has we estimated earlier the covid cases will start rising in a 8-9 Month gap we are able to plan the prevention strategies.

KEYWORDS: Covid 19 cases out break, Vellore District, Epidemic Curve, plan of prevention.

Health Care Services Provided To Labourers Under Labour Mobile Medical Unit In Vellore District In South India- A Descriptive Cross Sectional Study

Dr. Lakshmi.S; Dr. S. Loganathan

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION: Labour mobile medical unit(LMMU) is a program designed to provide health care services for construction workers in all states of Tamil Nadu district. The team members having the medical officer as the main in charge , with the staff nurse, lab technician, attender cum cleaner and driver , providing primary health care at field level . The motive of this study is to bring out the health care services provided for the construction workers mainly and extending the services to the unorganized sector workers, small scale shops whose employees are not covered under ESI and Factories Act. This program is unique in such a way , as the medical team is approachable to the work place where people get their major benefit of medical services in-situ and also their daily wages not gets affected. This program is beneficial for the lower socioeconomic status people. The varied services provided are listed as follows. 1) patient primary identification details 2)vital signs(Blood Pressure(BP), Pulse Rate(PR), Temperature,SpO2,height,weight,BMI 3)Non Communicable Disease(NCD) screening 4) vision test (Digital Snellen's, color vision) 5) spirometry(lung function test) 6) lab tests(sugar, cholesterol,creatinine,urine dipstick,peripheral smear mp/mf) 7)referral slip 8) treatment and medical register maintenance 9)covid immunization(mega vaccination camps) and

10) fever camps. The main aim is to screen and assess the Non communicable disease prevalence among the construction workers in Vellore district by labour mobile medical unit and to provide the knowledge and awareness of health care services exclusively meant for them.

RESULTS: The findings of study and the relevant data are given. The time period from month of April 2021 to September 2022 was considered. The results are total population screened-7669(M-5084;F-2585); referral cases-(M-962;F-434); total covid vaccination - 20,155 (M-11,522,F-8,633); Antenatal and Postnatal mothers examined - 12;No. of persons whom lab investigations done -5988(M- 3592 F-2396);BP - 7077(M-4814;F-2263) No. of blood smear taken - 270(M-103;F-167);Random Blood Sugar-3984(M-2393;F-1591);Creatinine-183 (M- 154;F-29);Cholesterol-246 (M-204;F-42); Lung Test Spirometry-32(M-30;F-2);Vision Test -871(M-841;F-30) .

CONCLUSION: Lmmu screens the NCD cases targeting the population where they are working and hence serves as a best health care provided for occupational health services. However the field difficulties can be overcome by providing the awareness about this scheme.

KEYWORDS: LMMU, NCD

Level of Awareness and Utilization of Dr Muthulakshmi Reddy Maternity Benefits Scheme Among Antenatal and Postnatal Women

Dinesh Kumar M, Gowrishankar KS, Bharanidharan L, Durga Devi B, Davishan naath G, Dr. Senthilarasi S, Dr. Shameena Rubaiya, Dr. Seenivasan P

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: India with its growing population has caused increased demand for food, shelter, education and health facilities. This demand is particularly reflecting upon the lower socio-economic class causing increased prevalence of maternal and infant morbidity and mortality. Tamilnadu Government Health care schemes and proper antenatal and postnatal care has reduced maternal mortality rate from 130 per 100,000 in SRS 2014-2016 to 113 per 100,000 live births in SRS 2016-2018 reported by Registered General of India (RGI). One such scheme is Muthulakshmi Reddy Maternal Mortality Scheme (MRMBS). The scheme provides assistance to pregnant women of lower socioeconomic class to meet expenses on nutritious diet, compensate loss of income during motherhood and to avoid low birth weight of newborn babies. Although the infrastructure to support the scheme is in place, the accessibility, awareness and utilization of the scheme need to be analyzed, in order to identify the gaps in healthcare services. This will help in formulating a strategy to impart knowledge to enhance the availability of the scheme and to improve the quality of life.

METHODS: A cross sectional study was conducted among 147 antenatal and postnatal women attending RSRM OPD, Washermenpet Chennai between July-September 2022 using a structured questionnaire containing information on socio-demographic characteristics and awareness about MRMBS (aim of the scheme, benefits available, number of installments of benefits given, eligible criteria, mode of providing the benefits, current utilization status). Data was entered in MS Excel and analyzed using SPSS16. Chi square test was used. P values < 0.05 were considered statistically significant.

RESULTS: Among study participants, 72.1% (106) were aware of the Muthulakshmi Reddy Maternal Benefit scheme and 27.9% (41) were unaware about Muthulakshmi Reddy Maternal Benefit scheme. Sociodemographic details were not found to be statistically significant. Most of them i.e., 54.4% (80 participants) reported that their sources of information on these schemes were community health workers like ASHA, AWW and ANM; 27.9% family members; 6.8% friends; 0.7% social media and 6.8% others. 72.6% (100) of the study participants who were aware of the scheme were utilizing the scheme.

CONCLUSION: Overall awareness about the Muthulakshmi Reddy Maternal Benefit scheme (MRMBS) was found to be good in the study participants. The scheme has provided assistance to pregnant women of lower socioeconomic class to meet expenses on nutritious diet and compensate loss of income during motherhood. Through this government scheme, there is a significant improvement in the acceptance of institutional delivery among public which has contributed immensely to the reduction of low birth weight of newborn babies. The incentive offered during immunization of the child has motivated others to follow up properly to get the baby immunized according to universal immunization schedule. There are issues regarding crediting of payment at the right time which needs to be addressed and the mothers need to be more enlightened about the main objective of the scheme so that the incentives are put for proper care of the baby at the critical age of growth and development.

KEYWORDS: MRMBS, Awareness, antenatal and postnatal women, Chennai

Cognitive Ergonomics and Its Significance At Workplace For Business Sustainability

Vasundhara K

PUBLIC HEALTH, SRIHER, CHENNAI

Over the past decade, A branch of ergonomics has emerged which focuses on the mental processes of work and how people make decisions. Cognitive Ergonomics (CE) is a division of ergonomics (human factors): a discipline and practices that aim to ensure “appropriate interaction between work, product and environment, and human needs, capabilities and limitations”. In this human-system interaction, CE focuses on mental processes, especially on cognitive functions and psychological/behavioural level interactions. Workplace ergonomics is an important issue for companies of all sizes. However, most of them discussion revolves around the physical factors of ergonomics, such as lighting conditions or repetitive-stress disorders. A people group of exceedingly qualified representatives for the workforce to turn into a focused business advantage, improving and supporting corporate wellbeing. Psychological capacities are exposed to discernment and consideration

at work, working memory, and getting the hang of thinking and language procedures and mastery at work environment. Individuals don't see everything that would be significant in their work, and they are effectively diverted by collaborators. The psychological requests and workplaces in any activity can be huge, EX: working in evolving conditions, doing different assignments in the meantime or being exposed to clamor or interferences at work. These conditions impede intellectual execution and may in this manner form into basic business related variables that can human mistakes and be in charge of medical issues or potentially mishaps at work, it is basic to think about human factors and to boost representative execution, organizations to likewise grasp standards of intellectual ergonomics that upgrade specialists' reasoning, preparing and imagination, working environment for business supportability.

KEYWORDS: Cognitive ergonomics, Human factors, Mental workload, work environment

Screening and Referral For Cervical Cancer In Cuddalore District, Tamil Nadu, 2019-2021

Gauthaman Sivachanemougame, Meera Rajaram, Karthiga Vijayakumar

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Analysis of data from the cervical cancer screening program will help identify the gaps in the program implementation.

OBJECTIVE: In the public health facilities of Cuddalore from January to December 2021, a) to describe the number screened for cervical cancer by time and place; b) to estimate the coverage of screening using visual inspection with acetic acid (VIA); c) to describe the cascade of care for cervical cancer detection and management.

MATERIALS AND METHODS: We analyzed the secondary data from the monthly program reports (aggregate data) from January to December 2018-2021. We described the number of women screened through an epidemic curve and choropleth maps. In addition to screening coverage, we also estimated the proportion of women who tested positive by VIA. The proportion of the VIA-positive women who underwent colposcopy and had abnormal findings was determined.

We used Microsoft Excel and Epi Info version 7.2 for analysis and Data wrapper for data visualization.

RESULTS: The coverage of screening for cervical cancer was 26% (n= 131214). Kammapuram and Komaratchi blocks had the lowest coverage (12% and 17% respectively). of the screened women, 1% (n=1354) were positive on VIA. Nearly 29% (n=393) of the VIA-positive women underwent colposcopy, and 55% of them (n=218) had abnormal findings. of those with abnormal colposcopy findings, 4% had cervical precancerous lesions, and 6% had cervical cancer.

CONCLUSION: The low proportion of VIA-positive women who returned for colposcopy was a significant gap in program implementation that needs urgent attention.

KEYWORDS: Secondary Prevention, Uterine Cervical Neoplasms.



Home For Every Soul

C.M. Gayathri

THE TAMILNADU Dr.MGR MEDICAL UNIVERSITY, GUINDY

BACKGROUND: A shelter home is a place to take refuge or a temporary arrangement if you are in urgent need or emergency. It is the responsibility of the government to protect the homeless and neglected members of the society. The Juvenile Justice Act empowers state governments to recognize organizations and provide them assistance, to set up and run shelter homes for children, women and her people, who are in need of care and protection. These shelter homes also function as a drop-in-centers and night shelters for people who are in urgent need of support.

METHODS: The Greater Chennai Corporation has 37 shelters for urban homeless and 10 special shelters (Hospitals) for inpatient attendants, since June 2013 which are run by Non-Governmental Organizations.

STUDY CENTRE: ANBAGAM SHELTER

RESULTS: Men and women were kept separated with their behavioural activities. The people are trained to grow plants, paint, was vessels. They are kept in a good music. People of age 18 – 60 years are brought to shelter with maximum stay from 6 months to 1 year.

CONCLUSION: Skill building and confidence building exercises by staffs. Vocational and skill building on small business. Tracing the family members within short duration. Mental health referrals, treatment and follow up and testimonials of people who had been effectively reintegrated with families.

KEYWORDS: Anbagam, Shelter, Somelessare

A Study on The Longevity of Low-Birth-Weight In Nicu Babies Discharged From Secondary Level of Care Institutions In Mayiladuthurai District During 2021-2022

Mrs. B. Ambika, Dr. P. Kumaragurubaran

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: The Low Birth Weight babies (LBW) especially those weighing less than 2000gms discharged from NICU are more at risk for morbidity and mortality during their first year of life due to many factors such as maternal high-risk status, gestational age at birth, breastfeeding practice, immunization status, etc., unless they are monitored at the field vehemently by the public health personnel. Infant Mortality Rate in India is 13% in which Low Birth Weight plays a major role

AIM: To assess the 'longevity' of low birth weight NICU discharged babies at secondary care institutions in Mayiladuthurai district.

MATERIALS & METHODS:

Study duration : 2 months (September and October 2022)

Study period : 01.09.2020 to 31.08.2021

Study design : Retrospective study

Sample size : 102

Setting of the study : Primary and Secondary care institutions in Mayiladuthurai District (Mayiladu-thurai GH & Sirkali GH) and Community (Data from discharge summary, RCH register, immunization records and PICME online entry)

Study population : Low birth weight NICU discharged babies from Mayiladuthurai GH & Sirkali GH with inclusion criteria.

INCLUSION CRITERIA:

1. Low birth weight babies (whose birth weight is less than 2000 gms at birth) who were admitted at NICU and discharged from Mayiladuthurai GH & Sirkali GH during the period taken for the study.
2. The parents of low birth weight babies who accepted to participate in the study and gave informed consent.
3. The Low birth weight NICU discharged babies who were resident of Mayiladuthurai district only were included in the study.

EXCLUSION CRITERIA:

1. Low birth weight babies whose birth weight was more than 2000 gms.
2. The parents of low birth weight babies who were not willing to participate in the study.

DATA COLLECTION PROCEDURES:

1. After getting permission from the concerned authorities of Mayiladuthurai GH, Sirkali GH and DDHS, Mayiladuthurai as per the standard procedures, the data are collected.
2. At the community level, informed consent from the parents of the study samples are collected.
3. The data of low birth weight NICU discharged babies weighing less than 2000 gms are collected from Mayiladuthurai GH & Sirkali GH.

4. The required follow up details are collected from Village Health Nurses of the concerned area and PHC.
5. All the required parameters such as sex , duration of stay at NICU, High risk status of the mother , type of delivery, gestational age at birth , birth weight , indication for admission , maternal age, place of delivery, nature of labour , stimulation for the initiation of breath, initiation of breast feeding, duration of breast feeding in months , initiation of weaning, readmission after discharge and immunization status were analysed with the longevity of the NICU babies.
1. The quality of care provided at NICU of Secondary Institutions plays a prime role in the Survival of the LBW NICU discharged babies.
2. The Longevity (survival rate) is 96.1% which shows that the Monitoring at the community level by Public Health Personnel is appreciable.
3. The Field workers such as Village Health Nurses, Anganwadi Workers and ASHAs are playing vital role to educate the mothers to care the babies and to identify and seek early medical assistance at the right time.
4. The Child Welfare Programmes and Strategies such as Universal Immunization Program (UIP), Home Based Newborn Care (HBNC), Home Based Young Child Care (HBYC) and Social Awareness and Actions to Neutralise Pneumonia Successfully (SAANS) assist in the strengthening of Health and nutritional status of all the babies especially LBW babies.

Financial support: Self

Data Analysis: The collected data are analysed by Descriptive Statistics using percentage.

RESULTS:

1. The Readmission is less in LBW babies who weighed > 1500gms than <1500gms after discharge from NICU during the first year of life.
2. The Major cause of death is due to Aspiration than the other causes among the LBW NICU discharged babies.
3. The Longevity (survival rate) is 96.1% in comparison with the death rate at end of the First year of life
4. All these babies are Immunised after discharge upto the age.

CONCLUSIONS:

The study reveals:

Recommendations:

- The Longevity of the Low Birth Weight NICU discharged babies can be improved by imminent care at NICU and intense monitoring at the Community through the existing Child Welfare Programmes eventhough the other factors like maternal age, High-Risk status, gestational age, type of delivery, etc., affect the survival.
- The periodic training to the Field Functionaries is required in the reduction of NMR and IMR to sustain in par with the SDG Goals.

Living With Diabetes: Knowledge and Coping Patterns of Diabetic Patients In Two Districts of Tamil Nadu

Dr. Devarajan Krishnan, Dr. Kasturi Sen Ray,
TATA INSTITUTE OF SOCIAL SCIENCES, MUMBAI.

BACKGROUND: Diabetes Mellitus is a disorder which cannot be cured but can be managed well with some lifestyle modification throughout the life. To have an effective control, it is important to know from patient's point of view the major constrains in life-long modification of lifestyle. This may be a major problem in population living in rural area where knowledge base is poor. The exploratory study has been done in the rural districts of Tamil Nadu to identify, whether the patients are aware of the disease, whether they were informed about the necessary modifications including diet, physical activity and stress handling, what are the constraints they face in following the above-mentioned modifications. The study was done in government hospitals of two different districts, situated far and close to city, to know the difference in awareness, knowledge and practice. The objectives of this study include,

To assess the patient's notion of diabetes, as a disease.

To know the pre-diagnostic dietary habits.

To know the typical lifestyle modification suggested by the physician.

To assess the difficulties faced (if any), in following a modified diet pattern.

To assess the difficulties faced in adopting other lifestyle modifications suggested, including exercise pattern and stress handling

METHODS: It was a qualitative exploratory study to understand the knowledge and coping patterns of diabetic patients with diet and other lifestyle modifications. Proper permission was taken from the senior officials of the government hospital and primary health centre. The study presented in this dissertation includes the interviews of the diabetic patients registered with the government hospital and the primary health centre of the respective areas. Patients enrolled were recently diagnosed or less than five years only. Patients age more than 65 with co morbid conditions were excluded from the study.

RESULTS: The literacy rates up to Secondary level schooling of both places were more than 50%. But more than 75% people said they don't know what the disease is, more than 50% is not aware of the disease symptoms but found that they were eager to know. 80% patients were aware and reported to be informed by the doctor about the dietary modification and physical activity, but stress being a major component in diabetes management was

not known to any of them. More than 30% have informed that they are not following the dietary prescription and the rests were following irregularly. The importance of satisfying the taste bud occasionally but controlling the total intake quantity, which may facilitate to adhere to the modified guidelines throughout the lifetime, were not informed by the physicians. Regarding physical activity 62% of the people were not following any kind of activity focusing health management. Diabetes Distress Scale 17 by Polonsky, gives a total diabetes distress scale score plus four sub scale scores of emotional burdens, physician related distress, regimen distress and interpersonal distress. It is a 6 points Scale ranging from no problem to very serious problem. A mean score of 3 or higher is considered as a level of distress that needs clinical attention. The results done in the two districts revealed that all patients are severely suffering from high distress in emotional burden, regimen distress and interpersonal distress. The only distress they did not suffer from was physician's distress unlike other countries and even in urban India, as they have complete faith on their doctors.

CONCLUSION:

It was evident that a holistic approach was lacking in all the subjects from both districts

indicating „knowledge on diabetes[] needs attention.

RECOMMENDATIONS

Medicines alone cannot manage Diabetic condition. Rather than concentrating only on diagnosis and treatment aspect, a holistic approach is needed. Patients both from town and village are from low socio-economic strata, having poor knowledge of the disease management, suffering from emotional burden, regimen distress and interpersonal distress due to the diseased condition. There is no health worker other than the physician to advice the people on lifestyle modifications. Due to heavy workload, physicians do not have time to update themselves and makes faulty short cuts. Decentralization of government health sectors needs to be the priority and bodies like National Rural Health Mission (NRHM) should work more on ground level health education focusing on preventive, therapeutic and risk factors of diabetes especially in rural population having lower exposure. New counselors from the community should be selected and trained with the latest updates of the disease and follow the current standard guidelines given by the World Health Organization.

Crimson Tide: Smart Watch Based Health Tracking System

Jaya Swathika R, Thivyasree K T R, M. Chengathir Selvi, T Manonman

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING,
MEPCO SCHLENK ENGINEERING COLLEGE, SIVAKASI

Previous research examining physiological changes across the menstrual cycle has considered biological responses to shifting hormones in isolation. Clinical studies, for example, have shown those women's nightly basal body temperature increases from 0.28 to 0.56 °C following post ovulation progesterone production. Women's resting pulse rate, respiratory rate, and heart rate variability (HRV) are similarly elevated in the luteal phase, whereas skin perfusion decreases significantly following the fertile window's closing.

In this project, we probed what phase-based differences a wearable bracelet could detect in users' WST, heart rate, HRV, respiratory rate, and skin perfusion. Drawing on insight from artificial intelligence and machine learning, we then sought to develop an algorithm that could identify the fertile window in real time. Along with this we intend to predict the

reason for irregular periods, if so (through stress, thyroid, obesity). We have an idea that wearable technology can detect significant, concurrent phase-based shifts in WST, heart rate, and respiratory rate (all $P < .001$). HRV and skin perfusion similarly varied across the menstrual cycle (all $P < .05$). Our findings would be robust to daily, individual, and cycle level covariates. Furthermore, we would develop a machine learning algorithm that can detect the fertile window with 70% accuracy.

Our contributions highlight the impact of artificial intelligence and machine learning's integration into healthcare. By monitoring numerous physiological parameters simultaneously, wearable technology uniquely improves upon retrospective methods for the first real-time predictive model of ovulation.

KEYWORDS: Heart rate; machine learning; menstrual cycle; ovulation detection/methods

Makkalai Thedi Maruthuvam; A Community Based Physiotherapy Intervention In Improving The Quality of Living and Rehabilitation of Stroke Patients - A Case Report

S.K. Karl Marx,

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Stroke is one of the leading causes of death and disability in India. The Physiotherapy interventions that include specific Evidence based treatment techniques, are aimed at improving the quality of living and restoring back the functional capacity of the patients.

MATERIALS & METHODS: A 62 years old gentleman with resultant right sided hemiplegic post hemorrhagic stroke was treated with physiotherapy interventions .The evaluations of Pre and Post rehabilitation were made at

certain intervals, using “Barthel Index Score” a therapeutic scale used to assess Activities of Daily Living (ADL)

RESULTS: Patient was treated with regular sessions of exercise protocols. Short-term and Long-term goals were set; and focused on the target achievement.

CONCLUSION: The Physiotherapy interventions aimed at Rehabilitation and Restoration of a healthy lifestyle had a good result as anticipated

Rational use of Antibiotic Therapy in Primary Health Care Facility

Dr. Subramanian C

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Daily on average of 200 to 250 patients are coming to outpatient consultation at CHC Kelambakkam. The usage of the antibiotic in the outpatient consultation needs to address. So, there is a need to study on rational use of antibiotic at primary care level. To study the level of indiscriminate usage of antibiotic and to avoid antibiotic related hazards, to estimate the cost in providing antibiotic and to create awareness about the usage of the antibiotic at primary care facility of CHC kelambakkam.

METHODOLOGY: Outpatient nominal doctors register analyzed, and doctors and health care professionals interviewed

RESULTS: Doctors are compelled to use the antibiotic in the outpatient consultation analyzed

CONCLUSION: To need of awareness usage of antibiotic primary care facility

RECOMMENDATION: Strategies need to be evolved for creating awareness among the doctors and health care professionals. Develop the antibiotic policy.

A Study To Assess The Weaning and Its Knowledge Among Postnatal Mothers In Paramakudi Hud

Mrs. Manjusha, Mrs. Suguna, Mrs. Rajathi,

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION: Weaning is important as breast milk is insufficient to meet the nutritional requirements of Infants after six months of birth. Its helps to address the increasing nutritional requirements of the baby for its growth and development to realise its full genetical potential. The main aim of this study is to assess the knowledge about weaning practices among Postnatal mothers.

MATERIAL AND METHODS: Parthibanur block was selected randomly among six blocks of Paramakudi HUD. A self-administered questionnaire was given to all the mothers with children between 4 to 6 months of age. Totally 60 mothers' response was collected and analysed.

RESULTS: In our study, Minimum age is 20, Maximum age is 25. Occupation wise, 23% were self-employed, 95% had own houses,

47% were in joint family. Mothers with 6 month old child was 60%, 5 month old child was 33%. In weaning knowledge assessment questionnaire 93% to 97% mothers had known about weaning preparation and methods. About 87% of mothers were aware of correct weaning starting month of 6 month, 10% are not aware. More than 60% of mothers were aware of correct age to start egg and meat. About 75% of mothers are afraid of allergic reactions while starting weaning.

CONCLUSION: Knowledge about weaning methods and practices were found to be satisfactory. Teaching mothers about good weaning practices will help to promote growth and development of the child, to realise its full the genetic potential.

KEYWORDS: Weaning, Postnatal mothers, Paramakudi.

An Observational Study To Determine The Effectivity of Refractive Error Correction After Power Glass Prescription For Palli Sirar Kannoli Kappom Thittam Beneficiaries In Paramakudi Hud

Dr. Mangaiyarkarasi, Parthibanur Block

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Correction of Visual impairment due to Refractive error is the easiest and effective method for enhancing vision, improving academic performance and quality of life of children Under “Palli Sirar Kannoli Kappom Thittam” Scheme of state government, around 75 lakhs students studying from class VI to class XII are screened annually and free spectacles are issued for correction. Uncorrected refractive error prevalence in Ramnad District is 3.3%. This study was conducted to assess the effectivity, adherence to glass wear, product quality, and improvement in academic performance of the scheme beneficiaries in Paramakudi HUD.

MATERIALS AND METHOD: By simple random sampling, among 6 Blocks of Paramakudi HUD, Parthibanur Block was selected. By simple random sampling out of 37 Government schools in Parthibanur, Parthibanur Govt. Higher Secondary School was chosen randomly and out of 148 beneficiaries, 50 beneficiaries of year 2021 – 2022 were enquired about their spectacle

condition, duration of wear, comfort level, academic performance after glass wear, spectacle wear interest and type of error through self-administered questionnaire and the results were analysed.

RESULT: Out of 53 participants, 56.6% were male and 43.4% female. The age distribution of participants was 1.9% in 11 to 13 yrs. and 98.9% in 14 to 18 yrs. Myopia was the most common refractive error (96.2%) and 3.8% had astigmatism. continuous wear was done by only 19.2%. Irregular wearers had headache (13.5%) and blurred vision (1.9%). Academic performance improved in 92.3% children. Among 30.1% children who disliked spectacle wear, 68.8% cited personal dislike and 25% peer mockery.

CONCLUSION: Despite rendition of free glasses, lack of awareness among children regarding regular use of spectacle wear still remains a challenge, which requires intensification of IEC component in KKT beneficiaries.

Influence of Maternal Height on Birth Weight of The Babies

Dr. Abdul Rajak, Ramasampatti, Peraiyur Block
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Prevalence of short stature in paramakudi HUD is 10% during 2018. There are many studies which proved the correlation between maternal height influencing birth weight of the babies. In the book “THE POOR ECONOMICS” also abhijit banerjee argued that maternal height influences the birth weight of the babies in south Asian countries. Hence this study was conducted to see the influence of maternal height on birth weight in paramakudi HUD.

METHOD: Analysis of PICMEE data of antenatal mothers who are registered in Ramasampatti PHC (between April 1st 2018 – march 31st 2019) retrospectively. Ramasampatti PHC was selected by simple random sampling among 30 PHCs in paramakudi HUD. Total number of 150 mothers were registered during the study period of which 87 mothers were selected by simple random sampling. the data of mother height and birth weight of babies collected and analysed. The results are shown below

RESULTS:

Mean height – 151.93cms

Mean birth weight – 2.99

Minimum height 130cms

Maximum height – 168cms

% of normal height mothers having low birth weight babies -17.6%

% of normal height mothers having normal weight babies – 82.4%

% of short stature mother having low birth weight babies – 16.7%

% of short stature mothers having normal birth weight – 83.3%

P Value 0.652 (which is not significant)

CONCLUSION: The chi square test was not significant as the P value is 0.652. The correlation between height of the mother and birth weight of the babies is not significant. Because of positive correlation between these two factors in previous studied more research is needed with more numbers of sample size, which including the analysis of all other variables like Maternal nutrition, High risk profile of mother, Socio-economic status by logistic regression and ANOVA analysis.

Knowledge of Family Welfare Practices Among High Order Birth, Paramakudi Hud

Ms Uma,

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Paramakudi HUD has 6 Blocks out of which Kamuthi Block was observed to have high number of High Order Births. State HOB rate is 7%, Kamuthi block is HOB rate is 6.5%. This study was undertaken to study the knowledge of Family Welfare Practices among High Order Birth mothers in Kamuthi Block.

METHODS: Kamuthi Block has 30 HSC's of which Mustakurichi HSC was selected by simple random Method. During September (2021-2022), Sixty three number of High Order Birth happened. Out of which, sixty Mothers were provided with self administered questionnaire and Data collected was Analysed. Three mothers were not contactable.

RESULTS: In our study Minimum age was 19 years, and Maximum age was 36 years, mean age 25.7 years, standard deviation 3.5 years.

Maximum people have knowledge of family welfare methods, and about 5% of mothers are not aware of advantages of family welfare methods like injection, Antara and 7% not aware of Chaya pills. About 15%, study population was not aware of Government incentives for family welfare methods adoption, 19% not aware of vasectomy for male partners, 2% not aware of complications of HOB like Maternal death.

CONCLUSION: More awareness about temporary methods of contraception like Antara and Chaya has to provided and male sterilization methods. Awareness about complication of HOB will helps to reduce HOB burden.

KEY WORDS: High order birth, Antara, Chaya.

Prevalence of Reproductive Tract Infection Among Adolescent Girls In Paramakudi Hud

Dr. M.M. Karthik,

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: This study conducted among adolescent girls in Paramakudi HUD aims at detecting the reproductive health awareness and knowledge about free sanitary pads supplied by RKSK Program.

METHOD: The study was conducted in Paramakudi HUD in BOGALUR block. Among 4 Higher secondary schools, Manjur and Kamankottai higher secondary school was selected by random sampling. Symptoms of RTI prevalence and reproductive health awareness was assessed by giving questionnaire which contained screening questions for RTI and free sanitary pads supplied by RKSK Program.

RESULT: Under RKSK program, 100% of adolescent girls have received free disposable sanitary napkins. About 75% of subjects are reported having vaginal discharge. About 80% of study group reported having back ache and lower abdomen pain. Only 20% have approached healthcare for these symptoms. Nearly 75% have discussed their symptoms of RTI with peers or parents.

CONCLUSION: Behavioral change modification among adolescent girls to seek medical help for their symptoms of reproductive tract infection by interpersonal communication need to be addressed. Evaluation of reason of back ache due to anemia needs further research.

Reasons For Deliveries In Private Facilities In Paramakudi Hud

Mrs. Alamelumangai, Muthukulathur Block
Mrs. Kalaiselvi, MLHP, Muthukulathur Block

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Over the period , mothers seeking delivery care in private facilities was observed to be increasing in Paramakudi HUD. This directly results in increased out of pocket expenditure despite of availability of quality delivery care services in government institution. This study was undertaken to understand the reasons for seeking natal care in private Facilities among mothers delivered private facilities of Paramakudi HUD.

METHODS: Muthukulathur Block was selected by simple random sampling out of 6 Blocks in Paramakudi HUD. Out of 4 PHCs in Muthukulathur Block, Theriruveli , Melakodumalur PHCs were randomly selected. 2 HSCs out of 12 HSCs in the 2 PHCs was randomly selected. During September (2021 - 2022) 81 Mothers had private deliveries. All the mothers were selected and interviewer administrator questionnaire was used to collect data. 21Mothers were not able to be contacted. data of 60 mothers were analyzed for results.

RESULTS: About 80% had two –wheelers, 63% had own lands, and 95% had own house. About 25% of mothers were not aware of

delivery services in Government facilities. About 45% mothers preferred private delivery because of their primi status. In 12% of mothers, family members didn't prefer for delivery services in Government. About 35% preferred private due to availability of immediate treatment. Around 35%mothers preferred private due to availability of privacy, single rooms. About 20% mothers preferred private hospital as they will not be compelled to adopt family welfare method. Nearly 13% preferred private facilities due to easy transport availability. About 41% mothers wanted private services as they are good compared to Government services.

CONCLUSION: Transport facilities, privacy, non-compulsion of family welfare methods adoption, are identified as important reasons for preferring private services. Also, family and primi status influences the decision of preferring private delivery. Awareness has to be created regarding facilities, privacy, transport to mother and family will improve deliveries in Government facilities. Key words Government facilities, delivery services, preference for private delivery.

Sex Selective Abortion Among Antenatal Mothers

Ms. K Shalini, MLHP, Nainarkoil Block, Mrs. T Karthika, MLHP, Nainarkoil Block, Mrs. S Kalavathi, Sector Health Nurse, Nainarkoil Block

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Sex ratio in Paramakudi HUD was 936 in 2021-2022 which is low compared to the sex ratio (954) in state. Mid trimester sex selective abortions is an important cause for the skewed sex ratio. This study was undertaken to assess the Prediction for sex selective abortions among mothers in 1st trimester in Paramakudi HUD.

METHODS: Out of 30 PHC's in Paramakudi HUD, Nainarkoil PHC was selected by Simple Random Method. All Antenatal mothers in 1st trimester during the study period were included. Self Administered questionnaire was provided to all the included Mothers and Collected data was analyzed. Data of 30 Mothers was analyzed and results are as follows.

RESULTS: In our study, minimum age is 19 years, maximum age is 33years, mean age is 24.2 years, SD 3.7 years. More than 55% Mothers are aware about PCPNDT Act, more than 95 % are aware that sex determination is

a crime. Nearly 45% were interested to know sex of fetus during scan. Reason of Place of scanning was influenced by family in 53 % of Mothers.

Importantly 87 % of Mothers may Seek abortion on Influence by Family. Only 56% had Knowledge of correct Gestational age to do abortion as per guidelines. Around 80% of Mothers are aware of health complication due to abortions. Only 67% of Mothers had Knowledge to seek family Planning services after abortion.

CONCLUSION: Awareness about abortion services in government facilities and correct Gestational age will promote safe abortions. Mothers preference for female child influences decision to seek abortion. Intensive Behavioral change, to avoid male sex child preference, to family can help normalise sex ratio.

KEYWORDS: Sex ratio, PCPNDT Act, Mid trimester abortion

Study To Assess Improvement In Knowledge of Ncd Protocols In Mtm Care Providers

Dr. Neppolean, Keelathooval Block

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: STEP SURVEY on Non communicable diseases (NCD) says that expected prevalence of hypertension is 33.9%, Diabetes is 17.67% and both is 10.5%. To identify the hidden NCD cases and provide adequate care to the existing cases Tamilnadu Government launched a special program named “MAKKALAI THEDI MARUTHUVAM (MTM)” MTM is the most important flagship program of Tamilnadu government to address the burden of NCDs and to prevent morbidity and mortality in the community. The key care providers are NCD Staff nurses, Mid level health providers (MLHP) and Women health volunteers (WHV). This Study was conducted among these MTM care providers to assess the improvement in knowledge of NCD protocols following an NCD training session.

METHODS: Out of six blocks in Paramakudi HUD Muthukulathur was selected by simple random sampling method. All the 51 MTM care

provider’s knowledge on NCD protocols was assessed by selfadministered questionnaire. Then training on this protocol was given by trained medical officer. Post training knowledge was assessed providing the same questionnaire and data was analyzed.

RESULTS: Out of 51 participants, 20 scored above 90% and none scored 100% in pre training knowledge assessment. 33 scored above 90% and 9 scored 100% in post training knowledge assessment. Pre test mean score was 20.80 with standard deviation (SD) of 4.13. Post test mean score is 22.57 with SD of 3.84. The increase in mean score of 1.765 by training was found to be significant with $P < 0.05$

CONCLUSION: There is definite improvement in knowledge on NCD protocols in MTM care providers after an effective training session by qualified medical officers. This emphasizes the importance of periodical training for MTM care providers to improve the health of the.

The Reasons For Teenage Pregnancy In Paramakudi Hud

Mrs. P. Ananthi, MLHP, Kadaladi Block Mrs. Vasantha VHN, Kadaladi Block
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION: A Preliminary analysis of PICME data of pregnancies during April -2021 to March-2022 in Paramakudi HUD Showed 33% of teenage pregnancies occurred in Kadaladi Block. This study was conducted to assess the reasons for teenage pregnancies in Kadaladi Block.

METHODS: A cross sectional study was under taken by self administered questionnaire from 45 mothers with teenage deliveries during April-2021 to March-2022 in Kadaladi Block.

RESULTS: In our study Minimum age was 16yrs, maximum age was 19yrs, mean age was 18.4yrs, and standard deviation 0.93yrs. Occupation wise 45% were self employed, 95% had own House, 58% were in joint family.

About 70% of mothers were aware of correct age for marriage. About 90% of mothers known about consequences to health of mother and baby in teenage pregnancy. About 85% of Mothers are aware of LBW out come in teenage pregnancy. Nearly 90% of mothers are not aware of difficulties in baby care, 100% of mothers said their marriage in teenage was not avoidable.

CONCLUSION: Promotion of women in empowerment and awareness about social, medical, and mental complications of teenage pregnancies will help to avoid teenage marriage and pregnancy.

KEYWORDS: Teen age Pregnancy , Women Empowerment

Prevalence of Medication Adherence and Factors Associated With Poor Medication Adherence Among Diabetics Who Are Makkalai Thedi Maruthuvam Beneficiaries In Kanyakumari District, 2021-2022

Dr. C. Varsha, Dr. S. Meenachi

INTRODUCTION: According to the World Health Organization, diabetes was the ninth leading cause of death. Treatment effectiveness decreases with non-adherence to prescribed medications. In Makkalai Thedi Maruthuvam (MTM) programme of Tamil Nadu, Women Health volunteers distribute medicines to Diabetes patients of > 45 years at home. Assessment of medication adherence and factors associated with poor adherence would help improve the programme.

METHODS: We conducted a cross sectional study among MTM beneficiaries >45 years who are known cases of Diabetes Mellitus. Our sample size was 225; 15 clusters *15. Health Subcentres were clusters. We randomly selected 15 clusters initially, then 15 patients from each cluster. Participants were interviewed by volunteers using tamil translated questionnaire. The medication adherence was measured using morisky adherence scale. Good adherence was defined as Morisky score >6.

RESULTS: Mean age of participants was 60; 62% were females; median duration since

diagnosis of Diabetes was 6 years; 74% had poor medication adherence. Duration <6 years (OR 2.0), forget to take (OR 2.9), apprehension about side effect (OR 4.2), use of indigenous medicines (OR 5.0) and having had follow up tests (OR 2.1) were factors associated with poor medication adherence

CONCLUSION: Three fourth of Diabetes patients had poor medication adherence. Lesser duration since diagnosis, forgetting drug schedule, worry about side effects and use of indigenous medicine could be predisposing for poor medication adherence. Curiously doing follow up tests was also a risk factor in this study which could be due to some confounders. We recommended targeted health education towards recently diagnosed ones and those who take indigenous medicines; apprehension about side effects and teaching reminder techniques to be duly handled during health education

KEY WORDS: Diabetes, Medication adherence

Reasons for Private preference among poor mothers regarding the delivery services in Kanyakumari District

D.S Amirtha Leena

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION: Tamil Nadu Government is totally committed to bridge the gap in the existing health infrastructure and to provide accessible, affordable and equitable healthcare of the highest order to the public. In Kanyakumari district, 65% of deliveries happen at private institutions. It is one of the top five districts with the majority of private deliveries, including mothers in below poverty line. Knowing the reasons for private preference among the Below Poverty Line mothers could improve service provision to them at Government institutions. Hence, we conducted this study.

METHODS: A cross sectional study was conducted among the below poverty line mothers who delivered in the private sector of Kanyakumari district during the period May to August 2022. Sample size was 300. Thirty mothers were randomly selected from each block (9 blocks + 1 corporation ($10 \times 3 = 300$)). The mothers were interviewed by Volunteers. We used Tamil translated questionnaire which was pretested in the field. We did descriptive analysis using excel and online open epi software

RESULTS: Majority of the study participants (43%) were in the age group of 26-30 years. Most of them (60%) were married for ≤ 3 years. Majority of the study participants (72%) were graduates. Only 9% of the study participants/families had an experience of hospitalisation in Government sector. Major reasons for private delivery were personal perception (22%), availability of better services at private (21%), prevailing cultural factors (20%), user friendly services at private (19%), availability of personalised services (9%), negative attitude towards the Government sector (9%) respectively.

CONCLUSION: Only one among ten mothers/family member had utilised government institutions for any hospitalisation; personal perceptions, Cultural factors, better services (as perceived by mother) and user-friendly services of private sector were major reasons cited for private preference.

KEYWORDS: Below Poverty Line mothers, private Preference, delivery services

Prevalence of Medication Adherence and Factors Associated With Poor Medication Adherence Among Diabetics Who Are Makkalai Thedi Maruthuvam Beneficiaries In Kanyakumari District, 2021-2022

Dr. R. Sivaram, Dr. S. Meenachi

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

INTRODUCTION: Hypertension causes major health issues when left untreated or uncontrolled. In Tamil Nadu, Makkalai Thedi Maruthuvam is a population based programme to take detect and care Non-Communicable Disease patients. Medication adherence is crucial for good control. Field assessment of prevalence of medication adherence would support improvement of programme implementation

METHODS: A cross-sectional study was conducted among hypertensive patients who were Makkalai Thedi Maruthuvam Beneficiaries in Kanyakumari District 2021-22. Patients above 45 years old who consumed at least one antihypertensive drug were interviewed through door-to-door survey with the help of volunteers. Sample size was 225; fifteen clusters (Health Subcentres) were selected randomly and fifteen patients were selected randomly from each cluster; if selected participant was unwilling or unavailable, replacement was done using random sampling within cluster line

list. We used Morisky Medication Adherence Scale (MMAS-8) to measure medication adherence. We used Tamil translated version of questionnaire which had been tested in field. As per the criteria, high adherence (=8 points), medium (6 or 7 points) and low (<6 points). We considered greater than 6 points as acceptable level of adherence

RESULTS: Mean age was 62.8 years & median age 64 years. Among 225 patients, (28%) had acceptable adherence to antihypertensive drugs. Forgetting (60%), recently diagnosed (76%) and failure to carry drugs when travelling (40%) were reported by majority of poor adherent patients.

CONCLUSION: Approximately one in four patients had poor medication adherence among hypertensive patients. We recommended intense health education to recently diagnosed patients to practise reminder techniques routinely as well as while planning for travel.

KEY WORDS: Hypertension, Medication adherence

Analysis of Maternal Mortality in Chengalpattu District, Tamilnadu, March 2017 – April 2022, India

Dr. B. Baranidharan; Vinili Simpson; Dr. T.S. Selvavinayagam.

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Maternal mortality is the reflection of the health care services provided to the women by the society. Maternal mortality is usually ascribed to complications that generally occur during or around labour and cannot be predicted. The major causes of maternal mortality are hemorrhage, hypertensive disorders of pregnancy and sepsis. All those causes are preventable through early identification and prompt treatment.

METHOD: This Retrospective analysis was done for the maternal deaths occurred in Chengalpattu District from April 2017 to March 2022.

RESULTS: A fluctuating trend is being observed. MMR is peak in last 2 years. It was 18.96 during the period April 2019 to March 2019. Majority of maternal deaths (64.6%) have occurred in the age group of 21 – 30 yrs. Majority of maternal deaths (74.7 %) have occurred in Government Medical College Hospital. Higher proportion of maternal deaths (72.1%) has occurred during the postnatal period. Majority of the deaths (43%)

have occurred in post LSCS period. Higher proportions of maternal deaths (55.7%) have occurred among the multigravida mothers. Among 57 births majority (55.7%) of the birth were live birth. Majority of the maternal deaths (64.6%) are due to direct cause, which is highly preventable. Higher proportions of maternal deaths (31.4%) are due to PPH. Majority of maternal deaths (60.7%) are due to Covid.

CONCLUSION: Overall Maternal mortality was 54.97/100000 live births. Last 2 years maternal mortality was high due to covid pandemic. The leading cause for maternal death in the district is hemorrhage followed by hypertensive disorders of pregnancy. These direct causes of deaths are potentially preventable by optimum utilization of existing MCH facilities, identifying the bottlenecks in health care delivery system, early identification of high risk pregnancies and complications and timely referral to tertiary care centre.

KEYWORDS: Maternal deaths, Sustainable Development Goals, Postpartum Hemorrhage (PPH), Non Pneumatic Anti Shock Garment (NASG).

Estimating the diagnostic validity of E-Paarvai Mobile Health technology as a Primary Screening Tool for Cataract in Thoothukudi District, 2022

Shruthie SG, Deepanchakravarthi V, Porchelvan S, Kumarasamy

GOVT THOOTHUKUDI MEDICAL COLLEGE, INDIA

BACKGROUND:

- To overcome the shortage of ophthalmologists, the Tamil Nadu eGovernance Agency (TNeGA) has developed an AI-powered mobile application called E-Paarvai in February 2021 to detect cataract.
- This study is therefore conducted to estimate the diagnostic validity of E-Paarvai mobile app as a Primary Screening Tool for Cataract in above 50 population in Thoothukudi District

METHODS:

- 348 Outpatients above 50 years reporting to Upgraded PHCs in Thoothukudi District participated in this cross sectional diagnostic study.
- Screening for cataract using E-Paarvai mobile app done by trained Mid-level Healthcare providers was the index test while the reference test was the blinded examination conducted by Paramedical Ophthalmic Assistants.
- Sensitivity, Specificity, Predictive values and Likelihood ratios were estimated for

the index test. 95% Confidence intervals were calculated to denote the precision of the estimates.

RESULTS:

- Preliminary analyses indicate that the E-paarvai mobile application has a sensitivity and specificity of 84.8% (81.8, 87.8) and 52.4% (48.2, 56.6) respectively.
- The predictive values of a positive and negative test are 74.3% (70.6, 78) and 67.9% (64, 71.8).
- Positive and negative likelihood ratios are estimated to be 1.78 and 0.29 respectively.

CONCLUSION:

- As per preliminary data, the E-paarvai mobile application does seem to have great potential in ruling in cataract with high degree of accuracy in the aged population, thereby making it a reliable tool for primary screening by field staff with limited training.

KEYWORDS: Accuracy, E-Paarvai, Cataract, Mobile Health Technology

Knowledge and Attitude Towards Teenage Pregnancy Among High School Students In Bishnupur District, Manipur: A Cross-Sectional Study

Priya Laikhuram, H. Sanayaima Devi
RIMS, MANIPUR UNIVERSITY

BACKGROUND: Teenage pregnancy is a high risk pregnancy due to its high maternal and neonatal mortality and morbidity. The burden of teenage pregnancy was 8.6% in Manipur (NFHS-5). This study will give a baseline data about knowledge and attitude about teenage pregnancy among the high school students of the Bishnupur district which can aid in developing activities and policies to prevent teenage pregnancy and in turn improve maternal, adolescent and child health.

OBJECTIVE: To assess the knowledge and attitude towards teenage pregnancy among the high school students of Bishnupur district, Manipur

MATERIALS AND METHODS: A cross-sectional study was conducted among 400 high school students of class IX and X of Bishnupur district of Manipur during April to May, 2022 using a self-administered structured questionnaire. Participants were recruited using convenience sampling. Data were collected after taking assent from the participants. Descriptive

statistics like mean, median, frequency, percentage, etc were used. Chi square test was performed to check for association between independent and outcome variables ($p < 0.05$).

RESULTS: Mean age of study participants was 15.14 ± 0.95 years. Only 34.2% had adequate knowledge on teenage pregnancy and 25.5% favourable attitude towards teenage pregnancy. Significant associations were found between type of schools ($p=0.000$), type of family ($p=0.025$), education of the father ($p=0.010$) and that of mother ($p=0.000$) with knowledge of participants on teenage pregnancy.

CONCLUSION: Three-fourth of the participants have inadequate knowledge and unfavourable attitude on teenage pregnancy which highlighted the need for encouragement of school authority to include curriculum related to teenage pregnancy like debate, quiz, essay competition etc.

KEYWORDS: Teenage pregnancy, Knowledge, Attitude.

Knowledge and Perception of Tuberculosis Patients Towards Tuberculosis In Bishnupur District, Manipur: A Cross-Sectional Study

Takhellambam Gitanjali, Shantibala K, BS Akoijam
RIMS, MANIPUR UNIVERSITY

BACKGROUND: Ending the TB epidemic by 2030 is one of the health targets of the United Nations Sustainable Development Goals. PLHIV are more susceptible to developing active tuberculosis (TB) and risks TB reactivation in patients with latent TB. Manipur has high PLHIV (adult prevalence rate of 1.15%). COVID-19 pandemic escalated the TB burden thereby causing setbacks in decades of gains. This study will assess the baseline information on knowledge and perception of the TB patients towards TB and help the concern authorities in developing strategies and policies to tackle the burden of TB.

METHOD: A cross-sectional study was conducted among all the TB patients (≥ 18 years) registered in District TB Centre, Bishnupur district, Manipur during August 2022. Telephonic interview using semi-structured questionnaire was conducted after taking informed verbal consent, collecting information on socio-demographics, knowledge (max. score= 10, min. score= 0) and perception (max. score= 55, min. score= 11) about Tuberculosis. Chi-square test, independent t-test and Pearson's correlation were used using SPSS 26.

RESULT: 63 participants agreed to participate (response rate=79.74%). Mean age of the participants was 51.59 ± 15.58 years. 68.3% were male, 58.7% were non-smoker, 52.4% consumed alcohol and 22.3% had other chronic illness. 34 (54%) had poor knowledge. Average score for perception was 36.8 ± 3.2 . Males had significantly higher perception (37.3 ± 2.9) compared to females (35.6 ± 3.5) ($p=0.044$). No other independent variables were found to be significantly associated with the knowledge or perception.

CONCLUSION: More than half of the participants had poor knowledge regarding tuberculosis. Half of the participants gave "negligence of the patient" as a reason for not completing TB treatment. More than 4/5th of the participants gave "fear of discrimination" as the main reason for not disclosing TB treatment. The study highlighted the need for further study among larger population and increasing awareness.

KEYWORDS: Tuberculosis, Knowledge, Perception

Prevalence of Exclusive Breastfeeding Practices Among The Mothers at Villages of Pudhur Nadu, Jawadhu Hills, Tirupathur District, Tamil Nadu, 2022

T R. Senthil, Murali Umapathy

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Exclusive breastfeeding should be continued for the first 6 months of child's life with early initiation, may be continued 2 years or more (WHO). The prevalence of exclusive breastfeeding is globally 44% (WHO), India 63% & Tamil Nadu 55% (NFHS-5 2019-21), among the hilly area population 26%. Objectives were to estimate the prevalence of exclusive breastfeeding & assess breast feeding practices among mothers at villages of Pudhur Nadu, Jawadhu Hills, Tirupathur District, Tamil Nadu.

METHODS: Cross sectional study done (October 2022), with study population of the mothers, who had delivered baby from Oct'21 to Sep'22 residing in the villages of Pudhur Nadu. Simple random sampling done. Pretested questionnaire used. ASHAs used as trained interviewers. Based on NFHS-5 (2019-21), the assumption of exclusive breast feeding 50%, confidence interval of 95%, relative precision: 5%. Total respondents are 186 with 10% non-response. Data analysis by MS Excel, Epi info 7.2. Descriptive analysis by proportions, Chi-square tests done. Prior permission from Ethics committee, DPH& PM obtained. Participant information sheet provided, consent obtained, the identity was anonymized.

RESULTS: 185 mothers responded, mean age 21(sd 3.7), 99% Hindus & belong to ST

community. Prevalence of exclusive breast feeding 57%. Major reasons for prelacteal feed (13%) are due to work of mother 83%. Stopped breast feeding before 6 months (43%) due to work of mother 36%, less milk secretion 20%, belief that milk is not enough for baby 12%. Colostrum feed given 96%. Breast feeding initiated within 1 hour of birth of baby 92%. Factors associated with mothers who don't exclusively breast fed by proportional analysis (chi-square test, p value < 0.05) is higher order of birth(3 and more). Age, age at marriage, socio-demographic factors like education, income, family size, type of family are not associated significantly. Atleast 3 antenatal visits at health sub centres & postnatal visits at public health facilities is associated with mothers' exclusively breast feeding the children (as protective factor).

CONCLUSION: Among mothers of Puthur Nadu village exclusive breast feeding practice is high compared to the expected. Interview by health staffs might have lead to information bias & an overestimate. Study by indepth interviews with mothers may better find the factors. Further studies can be done including rural & urban population.

KEYWORDS: Exclusive breast feeding, Jawadhu hills

Mega Camp Approach for COVID 19 Vaccination in Tamil Nadu

**Dr. T.S.Selvavinayagam, Dr. N. Chitra, Dr. K. Vinay Kumar, Dr. Satish Kumar
Mr. M. Manimozhi, M. Megalashri, Dr. Pooja Sanghvi**

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: In January 2021, Government of Tamil Nadu started Covid-19 Vaccination to health care and frontline workers. Over the next 1 year, Covid-19 Vaccination was expanded in a phased manner to all beneficiaries aged 12 years and above. Despite Vaccination Centers strategically spread across the State and widespread information dissemination, vaccine uptake was slow and wastage rate was 6%. By August 2021, less than 55% of eligible population had received first dose and only 30% received second dose. A July 2021 study showed that unawareness of where to get vaccine were the most common reasons for low uptake among the non-vaccinated in Tamil Nadu. Expanding the reach of vaccines to everyone is crucial to counter the risk of hospitalization, transmission. In this article, we would like to document the strategic interventions adopted by Tamil Nadu to improve Covid-19 Vaccination accessibility and uptake.

METHODS: From May 2021, different initiatives were implemented to improve vaccine accessibility like Door to Door, Near to Home, Workplace and School Vaccinations and Standalone Vaccination. From September 2021, weekly Mega Covid Vaccination Camps

were launched in all districts at fixed all day booths, manned by a vaccinator, data entry operator and 2 mobilizers. Vaccines, logistics and equipment were deployed as per prepared microplans. Manpower and additional resources were deployed; mobilization and supervision were strengthened through coordination with various government departments, medical colleges, private institutions, citizen groups, media, local SHGs and NGOs.

RESULTS: 38 Mega Covid Vaccination Camps were conducted till September 2022 through 11, 08,557 booth sessions across Tamil Nadu vaccinating 5, 51, 30,576 beneficiaries. Average vaccinations per day rose to 2, 23,685 and vaccine wastage dropped to -0.7%. Overall, 44% of total vaccinations were done through mega camps.

CONCLUSION: Mega Camp approach involves judicious deployment of resources and builds trust in the population regarding consistency and effectiveness of immunization services. Few areas of concern such as AEFI management and internet connectivity for data entry need to be addressed.

KEYWORDS: COVID, Vaccination, Mega Camp

Standalone Vaccination Centers for COVID Vaccination in Tamil Nadu

Dr. T.S.Selvavinayagam, Dr. C. Sekar, Dr. K. Vinay Kumar, Ramani, Patric Ignatious, Ebenezer Yesubatham, Dr. Pooja Sanghvi

BACKGROUND: Covid-19 Vaccination was started in January 2021 in Tamil Nadu and expanded to all beneficiaries above the age of 12 years in a phased manner over the year. Strategic interventions like Near to Home, Workplace, School and Mega Camp Vaccinations were implemented to boost coverage. However, by December 2021, only 58% of eligible population was fully vaccinated and 85% had received at least one dose. With expansion of vaccination to 15 to 18 years age group and introduction of precautionary dose due in January 2022, number of doses to be administered stood at 10 crores. Due to engagement of frontline health workers in COVID management and vaccination in the community, it is ascertained that coverage of routine immunization disrupted in few pockets. Sustaining expansion of vaccine reach was crucial to counter the risk of transmission and new variants of concern. In this article, we would like to document the sustainable model of Standalone Vaccination centres adopted by Tamil Nadu to enhance Covid-19 Vaccination coverage.

METHODS: From December 2021, Standalone COVID Vaccination centres were established at 2, 286 CCPs in 403 blocks across Tamil Nadu providing COVID Vaccination and RT-PCR testing services throughout the week for 3 months. 2, 048 additional retired nurses and nursing students pooled in as vaccinators also mobilized beneficiaries and provided real time data entry in COWIN portal.

RESULTS: 9,79,497 beneficiaries received first dose, 23, 31,806 received second dose and 2, 21,127 received precaution dose in 3 months.

CONCLUSION: Standalone centers dedicated to COVID testing, vaccination and mobilization staffed by hired vaccinators streamlined Covid and routine health care delivery. Such strategies can be effective during sudden demand surge in immunization services.

KEYWORDS: COVID, Vaccination, Standalone, Vaccinator

Self-Registration in PICME portal by Antenatal mothers for RCH ID generation

Dr. T.S. Selvavinayagam, Dr. N. Chitra, Dr. K. Vinay Kumar, Amutha, Uma, Srimantha,

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Pregnancy and Infant Cohort Monitoring and Evaluation (PICME) developed by Health and Family Welfare department through NIC, Chennai in 2008 to follow 11 lakh pregnant women annually and to record their pregnancy details with the aim of reducing Maternal Mortality and Infant Mortality. 8713 VHNs in rural areas and 1846 UHNs in urban areas been provided with login credentials.

Dr. Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS), a conditional cash benefit scheme is being implemented in the State since 15.09.2006 with a noble objective of providing assistance to poor pregnant women/mothers to meet expenses on nutritious diet, to compensate the loss of income during motherhood, to avoid low birth weight of newborn babies and aimed at reducing IMR and MMR.

PICME 2.0 web portal captures the details of pregnant women starting from Ante Natal registration to till 5 years of the child. The mothers are given a unique RCH ID number. Using this number, the details of the mother can be viewed anywhere in the world.

In GO.(MS).No.351, Health and Family Welfare (AB2) Department, dated:09.10.2017, Government of Tamil Nadu has made RCH ID number mandatory for mothers to get birth certificate.

At present, pregnancy registration is done by the Village Health Nurse (VHN/UHN) and RCH ID number is issued by using the PICME 2.0 website. <https://picme.tn.gov.in>. There were reports on issue of RCH IDs in few pockets and hence, it was decided to introduce this initiative for ease of AN mothers.

METHODS: In discussion with NIC, Chennai, an additional facility of “ Self-Registration of Antenatal mothers for RCH ID in PICME 2.0 Web portal ” was developed and the same was inaugurated by Hon’ble Minister of Medical and Family Welfare on 27.05.2022, so as to enable the pregnant mother to get RCH ID number by themselves through PICME 2.0 web portal https://picme.tn.gov.in/picme_public.

RESULTS: Over 6 months, around 1854 Antenatal mothers have self-registered their pregnancy using this website facility and obtained their RCH ID Number.

CONCLUSION: This provision of Self-Registration of Antenatal mothers for RCH ID in PICME 2.0 Web portal definitely serves for the most needed and ensures that all Antenatal mothers no longer to depend someone to help in AN registration for receipt of RCH IDs.

KEYWORDS: Self-Registration, PICME, RCH IDs.

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**Dr. T.S. Selvavinayagam, Dr. N. Chitra, Dr. K. Vinay Kumar,
Dr. Satish Kumar Mr. M. Manimozhi, M. Megalashri, Dr. Pooja Sanghvi**
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: In January 2021, Government of Tamil Nadu started Covid-19 Vaccination to health care and frontline workers. Over the next 1 year, Covid-19 Vaccination was expanded in a phased manner to all beneficiaries aged 12 years and above. Despite Vaccination Centers strategically spread across the State and widespread information dissemination, vaccine uptake was slow and wastage rate was 6%. By August 2021, less than 55% of eligible population had received first dose and only 30% received second dose. A July 2021 study showed that unawareness of where to get vaccine were the most common reasons for low uptake among the non-vaccinated in Tamil Nadu. Expanding the reach of vaccines to everyone is crucial to counter the risk of hospitalization, transmission. In this article, we would like to document the strategic interventions adopted by Tamil Nadu to improve Covid-19 Vaccination accessibility and uptake.

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were launched in all districts at fixed all day booths, manned by a vaccinator, data entry operator and 2 mobilizers. Vaccines, logistics and equipment were deployed as per prepared microplans. Manpower and additional resources were deployed; mobilization and supervision were strengthened through coordination with various government departments, medical colleges, private institutions, citizen groups, media, local SHGs and NGOs.

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KEYWORDS: COVID, Vaccination, Standalone, Vaccinator

Implementation of Student Ambassadors model in public schools of Chennai for awareness generation and prevention of TB - Lessons learned and scopes for scale up under National TB Elimination Program in Tamil Nadu.

Priscilla Rebecca B, Dr. Karikalan. N, Dhanalakshmi. A

BACKGROUND: Preventive school health interventions could have positive public health implications in resource- limited settings with meagre resources spent on treatment and population health care. We implemented and evaluated a school children lead participatory intervention to improve TB knowledge among their co students in the public schools of Chennai metropolitan city.

METHODS: Our study population comprised students enrolled from Class 7th to Class 9th between age group of 13–15 years. Informal feedbacks with the study team members helped to identify and categories the major themes pertaining to operational and implementation challenges associated with the intervention of student TB ambassadors.

FINDINGS: We identified three major implementation barriers in adopting a student led participatory intervention for TB awareness and prevention.

Lack of age appropriate student friendly Information Education and Communication (IEC) materials for TB

Before the initiation of the intervention, the study team felt that the available IEC materials for TB lacked content, style, less interesting for the school students and not age appropriate. Developing student friendly intervention material were costly and time consuming.

Lack of coordination between the health and education department was experienced before and during the intervention.

As the study intervention involved three major stakeholders pertaining to TB program, schools health program (RBSK) and school education department, there were bottlenecks in getting permission and coordination between them which lead to time delays.

Challenges faced at the school level during implementation were manifold.

Lack of dedicated day or timing for the school health intervention within the school curriculum was challenging for the study team to priorities and pre plan the intervention schedule. Students from higher secondary grade were excluded from the intervention citing exam as a reason.

CONCLUSION AND

RECOMMENDATIONS: TB awareness and prevention interventions aimed at school students would require active coordination between stakeholders. Developing student friendly awareness materials of TB through competitions, co-creations and talent hunts could be cost effective.

KEYWORDS: (maximum 4 words): Tuberculosis, schools, intervention, ambassadors, RBSK, students

Reemergence of Diphtheria: A Public Health Threat

P. Arthy Devi, Sivados Raju, V. Kalaivani, A. Kumaresan, R. Dinesh, V. Sathya, Dr. Hemachithra, Dr. Ravindran, Dr. Vinay Kumar, Dr. Arun, Dr. Surenderan, T.S. Selvavinayagam, Palani Sampath
 DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Diphtheria is a toxin-mediated infection caused by *Corynebacterium* sp; primarily *Corynebacterium diphtheriae*. The predisposing factor for this disease is the failure to immunize during childhood.

As part of National Immunization Program, laboratory supported vaccine preventable diseases surveillance was initiated in SPHL, DPH&PM, Chennai-06. Capacity building has been strengthened for case investigation, reporting, and data management. Specimens collected and sent to State Public Health Laboratory for lab conformation by RT-PCR assay.

METHODS: Throat swab sample from suspected diphtheria cases admitted in Tertiary Health Care Centre were collected in Amie's medium and subjected to RT_PCR assay. *Corynebacterium diphtheriae* were confirmed with real-time PCR by detecting the diphtheria toxin gene (tox). Blood samples were collected for ELISA to measure the level of IgG antibody against the toxoid of *C. diphtheriae*.

RESULTS: A total of 144 suspected cases from 12 districts in Tamilnadu during 2020-2022,

of which 56(38%) were reported positive for *Corynebacterium diphtheriae*. Almost 43(29%) positive cases occurred in <10 years age group, in which 64% were male and 36% were females. In <10 years age group, only 25% of children had received three doses of diphtheria vaccine. Serum samples obtained from suspected cases showed maximum antibody levels in the 1-9 years age group (95%) and the least in the >10 years age group (38%). The risk of mortality has been increased, if the specimen collection is \geq 6 days from the onset.

CONCLUSION: Diphtheria predominantly affects children of <15 years of age, and several investigations have shown that unimmunized and immunocompromised populations are particularly vulnerable to the disease. Mortality increases the severity of disease, delay between onset of disease and administration of antitoxin. To know the real status of disease burden, referral samples has to be increased. Diphtheria being the emerging pathogen of increasing significance worldwide, it is imperative to take appropriate measures to control the disease.

KEYWORDS: Diphtheria, tox gene, IgG antibody, vaccination



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V. Sathya, Dr. Hemachithra, Dr. Ravindran, Dr. Vinay Kumar, Dr. Arun,
Dr. Surenderan, T.S. Selvavinayagam, Palani Sampath**
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE



Prevalence and Distribution of Dengue Virus (DENV) Serotypes Circulating in Tamilnadu, India

A. Kumaresan, Sivadoss Raju, M. Rajesh Kumar, J. Priyanka, T.S. Selvavinayagam, Palani Sampath.

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Dengue virus (DENV) is the most common vector-borne viral disease, with nearly 400 million worldwide infections each year concentrated in the tropical and subtropical regions of the world. Ideally, surveillance activities should include the rapid detection of human infection supported by valid clinical and laboratory diagnosis, vector surveillance and monitoring of environmental and social risk factors for dengue outbreaks to ensure that increased dengue transmission is detected early and that the response is rapid and appropriate.

MATERIALS AND METHODS: A total of 16710 pooled *Aedes aegypti* mosquito samples (2016-2022) from different household and urban areas were subjected to Molecular studies. The sample processing was carried out in a Type II Biosafety Cabinet with HEPA filters, at SPHL, Chennai. RNA extraction was done by using King Fisher Flex Nucleic Acid Extractor as per manufacturer's instructions. Purified and extracted RNA was subjected to DENV RT-PCR analysis by using commercial kit (Helini bio molecules). RT-PCR was done and analysed by using Light Cycler Cobas Z 480. DENV RT-PCR Positive RNA Extracts will be subjected to Dengue virus (DENV) serotyping by Real Time PCR using Multiplex RT-PCR Kit for the

detection and differentiation of Dengue Virus specific RNA and its serotypes.

RESULTS: Among the 16710 pooled *Aedes aegypti* mosquito samples (2016-2022) the positive rate is 2016 (2/40), 2017 (1/107), 2018 (36/835), 2019 553/1603), 2020 (158/2209), 2021 (238/6457), 2022 up to 43 rd week (167/5459). However, the positive percentage was differs in each year. Meanwhile the serotypes of the Dengue virus were determined. In 2018, 32 positive samples were subjected to serotyping. Among that dengue serotype 2 is the most predominant and also there is a mixed infection of DENV 2&4. For the year 2022 the pools have to be serotype for detection of serotypes of Dengue circulating in Tamilnadu.

CONCLUSION: There is an urgent need for better surveillance and control of DENV spread to help mitigate the global spread of epidemic dengue. Vector surveillance as a potential tool to detect DENV from field caught mosquitoes is yet to be explored and not being implemented in many states. State Public Health Laboratory (SPHL) with its RT-PCR lab capacity supports the detection of DENV from vector mosquitoes being used as a potential tool for Dengue control and surveillance.

KEYWORDS: Vector surveillance, *Aedes aegypti*, RT-PCR, Serotyping

Prevalence and risk factors associated with Latent Tuberculosis Infection (LTBI) detected by IGRA among the Household contacts (HHC) of Active Tuberculosis Cases in Tiruvallore District.

V. Kalaivani, Sivadoss Raju, Asha Frederick, Lakshmi Murali, V. Abinaya, Ranjith K. Rober, Suma, P. Arthy Devi, A. Kumaresan, V. Mageshwari, B. Kavitha, T.S. Selvavinayagam, Palani Sampath.

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Tuberculosis (TB) is a major public health problem and a leading cause of death worldwide. Household contacts (HHCs) of TB Patients are at high risk of developing LTBI and active disease from the index patient.

Latent TB Management includes Screening, Diagnosis, Treatment and follow-up of latent TB infection for eligible household contacts of microbiologically confirmed pulmonary TB patients (except children <5yrs and HIV patients). Latent TB infection Management is one of the Key activities to prevent active TB diseases.

METHODOLOGY: Blood samples of 1200 Household contacts of Pulmonary TB Patients from Tiruvallore District were collected and referred to State Public Health Laboratory for diagnosis of LTBI by Interferon Gamma Release Assay (IGRA) and the basic parameters (CBC, RBS, Urea, Creatinine, Total billirubin and Chest X-ray) for positive Latent TB infection were investigated in DTC, Thiruvallore.

RESULTS: In total of 1200 Household contacts of Pulmonary TB cases tested for IGRA, Almost all HHC shared their residence

with the index case for more than a year. Among them 520 (43%) were positive for LTBI and female was predominantly positive (62.3%) than male (37.7%). 59% of the LTBI was observed between 15-44 Age Group. 59% of LTBI patients were anaemic, 7% of the LTBI Patient's RBS were increased and the level of Urea, Creatinine, and Total Billirubin was found to be normal for the LTBI patients. And also there is no significant changes in Chest X ray for the LTBI patients. 15% of index cases spread their infection almost two of their household contacts, 5% of index cases spread to three of their contacts and 1% of index cases spread to 4 of their household contacts.

CONCLUSION: The findings are preliminary in nature pertaining to Tiruvallore district and the risk of the index cases needs to be investigated to control the spread. Early diagnosis, investigation of risk factors and treatment of Latent TB infection among the household contacts of TB patients are very important to reduce the TB disease burden in the community.

KEY WORDS: Pulmonary Tuberculosis, LTBI, Interferon Gamma Release Assay,

Assess The Effectiveness of Survivorship Program (Sp) In Meeting The Holistic Needs of Breast Cancer Survivors

**Mrs. P. VANAJA MSc., (N), MBA (HM), MA.,
Dr. N. JAYA MSc(N), MA., Ph.,D.,**

TAMIL NADU GOVT. MULTI SUPER SPECIALTY HOSPITAL, CHENNAI -02.
DEAN , SHENBAGHA COLLEGE OF NURSING, CHENNAI – 77.

AIM: The aim of the study was to assess the lacking care of breast cancer survivors and intended to meet the holistic needs of the survivors in order to enhance their survival and reduce the burden of breast cancer symptoms.

METHODS: The True experimental design and the participants of 32 were selected by simple random sampling technique was used to collect the data from samples by using Structured Questionnaires assessing the demographic variables, holistic care needs that is Physical, Psychological, Social & Spiritual aspects among breast cancer survivors.

RESULTS: The present study findings revealed that, in experimental group are reduced 28.51% physical needs score where as control group are reduced only 1.81%, In Experimental group are reduced 26.53% psychological needs score where as control group are reduced only 1.90%, In Experimental

group are reduced 31.80% social needs score whereas control group are reduced only 1.80%, In Experimental group are reduced 35.56% Spiritual needs score whereas control group are reduced only 2.88%, this difference shows the effectiveness of the survivorship program in this study.

CONCLUSION: In all the domain, effectiveness of survivorship program with percentage of reduction score shows that the survivorship program had effectiveness in meeting the holistic need in experimental group when compared to control group. The study finding helps the survivors to enhance the survival through reduction of morbidity associated breast cancer and helps to identify and fulfill the need without dependency.

KEYWORDS: Survivorship program, Holistic needs, Breast Cancer Survivors,



LESSONS FROM THE FIELD

Surface water consumption in Attuputhur village Walajabath block Kancheepuram District

Jaisundar Narayanan

PROBLEM: Surface water consumption is hazardous, it creates public health emergency. It leads to many water borne diseases like cholera, acute diarrheal disease, jaundice, leptospirosis, typhoid etc. In some villages people are using surface water for their drinking and other purpose due to high alkalinity content of water which turns boiled rice to yellowish color.

LOCAL SETTING: In Kanchipuram, Attuputhur village 600 houses and 1500 population are estimated. These village people used to consume harvested rain water in ponds. Ground water is chemically not potable in these areas. In 2007, Acute diarrheal disease cases are recorded in the village and the reason of ADD is found as drinking of surface water. Hence, creating awareness among the public not to consume surface water.

APPROACH: Nowadays, the villagers are consuming the Reverse Osmosis water for their cooking and drinking purpose which are higher in cost which is not affordable. The annual expenditure for RO water is estimated around as Rs.21600. Thus, to reduce their burden on expenditure for water, the water resources from nearby villages which are potable can be supplied through kootu kudineer thitam to such kind of villages which is the permanent solution to avoid future water borne disease outbreaks.

LESSONS LEARNED: In this case study, it is clear that our ancestors analyzed earlier that ground water is chemically not potable. So in these villages they constructed more number of ponds to harvest the rain water for the usage of water management. So in villages which are having more number of ponds, needs CDSS or Kootu Kudineer Thittam to be implement.

Laboratory Services in Primary Health Care – Success Stories in a Govt. Primary Health Centre, Thalavaipattinam, Tiruppur District

Suguna. G, Dr Riyaz Sulthana, Dr Thenmozhi. A and Dr Jagadeeshkumar. K,
DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

BACKGROUND: Laboratory services are an integral part of the Health Care System in Tamil Nadu. Directorate of Public Health & Preventive Medicine has a network of 2127 Primary Health Centres, each facility has a clinical laboratory to provide diagnostic support for Communicable Diseases, NCD and MCH Programmes.

PROBLEM: Challenges to provide reliable and quality laboratory services in a Primary Health Care Setting to support the rural community.

LOCAL SETTING: PHC laboratory functions with basic infrastructure lab equipment's, reagents and consumables. Community awareness to be created about the functionality of PHC Lab.

APPROACH: Establishment of a functional PHC Lab with basic facilities to detect high risk Antenatal Mothers to diagnose anaemia and follow-up, early diagnosis of Gestational Diabetes Mellitus (GDM) by Glucose Challenge Test (GCT), Management of Chronic Diabetes Cases under NCD Program and to reduce the out of pocket expenditure by Free Diagnostics provided to the Rural Community.

RELEVANT CHANGES: Participated in CMC, Biochemistry EQAS Program consistently

with excellent score in performance, calibrated all the required instruments, ensured availability of reagents and consumables through MO(PHC) and obtained NABL Certification to ensure Quality Laboratory services.

LESSONS LEARNED: Ante Natal Mother diagnosed by the lab having severe anemia has shown improvement due to regular follow-up during high-risk camp, detection of GDM in Antenatal Mothers and regular follow-up, Chronic diabetes cases with regular follow-up and cost benefit analysis of PHC lab services to rural community from Nov 2019 to Nov 2022.

IMPACT: NABL Certification obtained by PHC has transformed the perception of the Govt.PHC Lab in the community, first of its kind in the State .Management of high-risk Ante Natal Mothers with Anemia and GDM will be presented. Alleviation of out of pocket expenditure on diagnostics to the rural community will be documented.

CONCLUSION: Laboratory services in a Primary Health Centre is playing a vital role in early detection and management of Communicable and Non-Communicable Diseases(anaemia,diabetes,hypertension).

Mixed infection in Arpakkam village Kancheepuram block kancheepuram district

Jaisundar Narayanan

PROBLEM: Pit taps more are the main reason for causing mixed infections like waterborne and vector borne diseases like acute diarrhoeal disease, cholera, typhoid, leptospirosis, dengue, chikungunya etc. Some village panchayats people are still using pit taps due to lack of ground water availability.

LOCAL SETTING : In Kanchipuram district, kancheepuram block, Arpakkam village around 500 houses and 1800 populations are estimated by 2011. These village people used pit taps to collect water for drinking and domestic purposes. In 2014 of September few fever cases are recorded and gradually raised. The recorded all fever cases presented with different clinical symptoms ie fever with rigor, high fever with severe headache, fever with joint pain, high fever with vomiting and abdominal pain.

APPROACH: As per the clinical symptoms we segregated the patients collected the blood sample and sent to the laboratory confirmation.

The lab investigation reports indicated leptospirosis, dengue, typhoid & chikungunya. Among the fever cases daily Conducted fever camp at Arpakkam village and detected new cases as well as followed up the old cases. Some fever cases treated with antibiotics in village itself and monitored daily. Worsening cases are shifted to district headquarters hospital for epidemic logical team. As per our instructions all pit taps are removed by local authority. More focus on source reduction activity, locked houses are identified and destruction of all breeding sources. The local informers are fixed for daily reporting of fever symptoms. The situation after two weeks fever cases reports became nil & outbreak controlled.

LESSONS LEARNED: In this case study, pit taps are main reasons for carrying out breaks. Any village panchayat having pit taps is pointing to a future outbreak. This should be strictly avoided. Pit taps are major cause for mixed infection

Focused on pregnancy outcome of unattended and unfocused mothers with dignity and social justice through better access to quality health services, Ariyalur district, Tamil Nadu, India, 2022

Dr. M.Geetharani, Dr. Selvanayagam, Dr. Sekar, Dr. Shanmugam, Dr. Revathy, Dr. Mehanadhan, Dr. Ashok, Dr. Tamilselvam, Dr. Karthiga, Dr. Thantchanamoorthy, Dr. Maheswaran, Dr. Jaisankar, Dr. Velmurugan, Dr. A.Ragu, Dr. Arun Prasanth, Mrs. Singari, Mrs. Arockyia Mary, Mrs. Kulanthai Tharasa, Mrs. Suseela, Mrs. Jothylakshmi, Mrs. Sharmila, Mrs. Samathuvam, Mrs. Priya, Mrs. Ash, Mrs. Malathy, Mrs. Ranjitham, Mrs. Kanimozhi, Mrs. Jelsiflora, Mrs. Dhamayenthi, Mrs. Renugadevi

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

PROBLEM: Discrimination, violence and stigma against unattended women are common in the society. Lack of utilizing the ante natal and delivery care services highly impact the maternal complications and poor perinatal outcome.

LOCAL SETTING: Ariyalur District

APPROACH STRATEGIES: Totally 17 unattended/unfocused women were identified by the village health nurses and the sector nurses by survey method between April and September of 2022. The direct observation approach used to determine the challenges on those women and their health status was periodically evaluated. 59% (10) of them were under 30 years. 59% (11) were having two children and 82% (12) were identified in their third trimester. Among them 41% (7) Widower, unmarried 34% (4), mentally retarded and separated 18% (5). 65% (11) delivered live births and 24% (4) underwent Medical termination of pregnancy. 80% (12) were delivered in government hospitals and 2 were undelivered. 73% (11) of the women adopted any one of the family planning methods and the rest didn't willing for it.

RELEVANT MEASURES: The children of unattended women were taken into proper care and adoption through Tamil Nadu

Government's cradle baby scheme under the supervision of the Social Department and the Child Protection officer. The unattended mothers were fostered by other departments to prevent foeticide, infanticide, child trafficking and orphans.

RECOMMENDATIONS: This study recommends the government to increase the family planning compensation amount rupees. 50,000/- for vulnerable unfocused women.

Unfocused women were motivated and encouraged to reveal their pregnancy to receive the full benefits from Dr Muthu Lakshmi benefit scheme.

CHALLENGES: The main challenge was to standardize the regulations of delivering Medical Method of Abortion tablets and Urine Pregnancy Test selling in pharmacies needs periodic audition. Enlisting the female sexual workers, to be registered and observed them continuously.

LESSONS LEARNED: Create awareness of universally accepted safer sex and the state should take possible measures to monitor those unfocused mothers.

KEYWORDS: Pregnant and unfocused mothers, Tamil Nadu, adoption, Cradle baby scheme



Covid 19 Exposure Risk Assessment of Health Care Workers – An Experience From A Designated Covid Hospital, Puducherry.

Dr. Anandaraj R, Dr. Zubeda Begum, Dr. Vignesh M, Dr. Kavita Vasudevan

DEPARTMENT OF COMMUNITY MEDICINE, IGMCRI

PROBLEM: Health care workers (HCWs) are at increased risk of acquiring COVID-19 disease, if there is a breach in the personal protection while managing patients. Large number of COVID-19 affected health personnel getting isolated for treatment and their close contacts undergoing quarantine affects hospital service delivery.

LOCAL SETTING: IGMCRI has been assigned as a designated COVID19 hospital by the Health Department, Govt of Puducherry. As per the instructions of the Covid core committee, a subcommittee was formed to assess the exposure of HCWs posted for Covid duty.

APPROACH: Risk assessment surveys were conducted periodically by Community Medicine to those HCWs who complete a round of duty in the Covid hospital. Assessment was conducted in accordance with MOHFW guidelines. Data collected was analysed and any HCW reporting symptoms suspected of Covid or any HCW reporting breach of his/ her personal protective equipment was investigated. Risk status was assessed and classified as high or low, as per MOHFW guidelines. Prompt corrective action

taken and those who warrant a Covid test were advised to undergo testing as per prevailing ICMR guidelines.

RELEVANT CHANGES: Since April 2020, 10 rounds of risk assessment have been completed till July 2020. On an average, 125 HCWs were posted in each round of which 112 (89.6%) were assessed, 10 (8.9%) were found to be at high risk. None reported providing care to COVID patients without recommended PPE, while two reported accidental exposure to body fluids on intact skin/ mucosa and eight reported breach of PPE. On an average, eight reported symptoms, of which four (50.0%) were tested and none were found positive.

LESSONS LEARNED: Health-work force is a valuable and scarce resource. Adaptation of the survey by all HCWs was a challenge, given their priorities during pandemic and prevailing misbeliefs. With periodic training and hand-holding regarding appropriate PPE usage, average number of HCWs who were reported as high risk came down from 20 in the initial rounds to one in the subsequent rounds.

KEYWORDS: COVID19, Health care worker, Risk assessment



Establishing Tele-Counselling Centre During Covid19 – Higher Education Institution A Nodal Agency For Public Health Emergency: Lessons Learned

Johannes Samuel J, Prince Annadurai D and Joseph Samuel Rajan

DEPARTMENT OF SOCIAL WORK (AIDED), MADRAS CHRISTIAN COLLEGE,
DEPARTMENT OF POLITICAL SCIENCE, MADRAS CHRISTIAN COLLEGE

PROBLEM: Individuals who were infected by COVID19 and their families were one of the most afflicted by the pandemic, their psychological, social and economic implications were severe. The uncertainty of life and psycho-social impacts triggered a crisis.

LOCAL SETTING: The Chengalpattu District Health Administration set up a hotline for the people to get information regarding their symptoms, hospital bed availability, vaccines and basic needs for people in Quarantine. The District Health Administration and local Governance organized and managed to facilitate medical resources. The basic need of the people was met. But the psycho-social needs of individuals and families infected by COVID19 were identified as a gap in services.

APPROACH: The Department of Social Works, Madras Christian College collaborated with the Chengalpattu District Administration and served as a nodal agency to establish a Tele-Counselling Centre to address the psycho-social needs of the COVID19 infected individuals in the District. The Tele-Counselling Centre operated with Professional social workers

and trained counsellors, Telephone calls were made to enquire on the psycho-social needs of patients, appropriate counselling was provided and follow up calls were made to check on the Psychosocial support process.

RELEVANT CHANGES: The beneficiaries' psycho-social needs were addressed through counselling and referral services. Networking with Government and voluntary service providers were established. Re-assurance, Empathetic listening to catharsis, Grief counselling for loss of life in family, High risk Individuals with suicidal ideations were provided counselling services.

LESSONS LEARNED: The Public-Private Partnership helped organize and mitigate the crisis. Sharing and utilization of resources and expertise were vital in providing health care service. Higher education institutions can be nodal agencies with trained professionals and teams to respond to health emergencies and disaster. The physical and technological infrastructure of these institutions can be used to establish disaster response centers in multiple locations.

The Rights Of The Dead and Their Rights To Have Dignity In Their Last Rites For Covid Death, Kadugur Block, Ariyalur District, Tamil Nadu, India, 2020-2022

**Dr. R. Karthiga, Mr. Smith Simom, Mr. Gigin, Mrs. Rathna
 Dr. H. Muthukrishnan, Dr. Hemachand Gandhi, Dr. Ramesh, Dr. Kanmani
 Mr. Vakheel, Mr. Dharmalingam, Mr. Sathish, Mr. Sivarajan
 GUIDE : Dr. M. Geetharani,**

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE,

INTRODUCTION: The COVID-19 pandemic, also known as the Corona virus pandemic, is an ongoing global pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The pandemic had caused more than 618 million cases and 6.54 million confirmed deaths, making it one of the deadliest in history. This need for rapid disposal of covid deaths but there is a shortage of people who can do the funerals and last rituals. This has led to a situation where people are paying bribes in order to get space or a furnace for cremation. In Ariyalur district there was 306 covid deaths which was disposed by Public health staff even their relatives were afraid to come forward for funeral.

PROBLEMS: Fear & Hesitation among relatives, lack of manpower, lack of facilities in crematorium, lack of electrical crematorium, and lack of logistics, lack of awareness of disease.

APPROACH: As per District Collector and ICMR guidelines, we convinced patient's relatives to bury the bodies. We formed group of Health Inspectors to carry the bodies from

mortuary to Crematorium/Burial ground. And also they were trained about guidelines of Covid Death. We were allotted space for burial in the outer area of Municipality and Rural. Our local people sponsored JCP, even during the Rainy Season. Initial period of Covid wave electrical crematorium was not available later on it was rectified. So far 146 Covid bodies buried and 160 bodies cremated.

LESSON LEARNT: Nature can do anything irrespective of people. During pandemic period our health workers not cared about their life irrespective of their age, own health, season, they didn't bother, lack of manpower. We learnt the following lessons in this period. Importance of Self – Reliance, No stronger institution than family, Happiness lies in the little things, your mental health matters the most, kindness goes A Long Way.

PEOPLE INVOLVED: Block development officer, Kadugur block, Municipality Commissioner, Sanitary Inspector, Ariyalur Municipality, NGOs, and Lions Club members

KEY WORDS: Covid deaths, dignity in burial, Ariyalur, Tamil Nadu

Efficient Covid-19 Vaccination Drive For The Vulnerable Groups, Ariyalur District of Tamil Nadu, India During 2021-2022

Dr. M. Geetharani, Dr. Vijaya Bharathi, Dr. Selvavinayagam, Dr. Sekar, Dr. Shanmugam, Dr. Revathy, Dr. Mehanadhan, Dr. Ashok, Dr. Tamiselvam, Dr. Karthiga, Dr. Thantchanamoorthy, Mrs. Idragandhi, Mrs. Jesintha, Mrs. Murugeswari, Mrs. Jothy, Mrs. Tamilarasi, Mrs. Vasantha, Mr. Anbalagan, Mr. Vaheel, Mr. Arun Prakash, Mr. Ravikumar, Mr. Rajkumar, Mr. Perumal, Dr. Shanmugam, Dr. Ezhil Bharathi, Dr. Veerappan, Dr. Gayathri, Mr. Kumar

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE,

INTRODUCTION: Vaccines are very effective interventions to reduce the disease globally. Almost 68% of the world population has received at least one dose of COVID-19 vaccine. Whereas vaccine hesitancy among the most vulnerable people living in the rural areas forms a critical barrier and it is a huge challenge for public health. Ariyalur is a backward district in the state of Tamil Nadu in terms of female literacy rate around 61.74% and most of its population are hesitant for change, stubborn to adopt vaccination. So special measures and strategies are required to vaccinate this population.

PROBLEM: Less literacy rate, Socio-economic conditions, lack of awareness lead to the hesitancy for vaccination among vulnerable people.

APPROACH: The camp mainly focused on most vulnerable population who are illiterate and hesitant about vaccination. An attempt was made thereby by encouraging them in an effective friendly manner.

Narikuravar community lack knowledge about the disease and are generally unwilling to wear masks. So, as per the guidance of DDHS, a health team created knowledge about the spread of infection and the importance of mask and Covid vaccination among the community.

Farming Labours are present in significant number in Ariyalur district and women

constitutes a majority of farming labours. Due to harvesting season, the farm labours were not able to participate in the vaccination programme. To ensure the Farm Labours are being vaccinated, an event was conducted by the officials participating in sowing along with 50 members and perform cultural activities to ensure the vaccination becomes people's activity.

Shepherd community people were in risk of covid outbreak due to their occupation. So they were brought under one roof for vaccination in order to control the spread of infection and possible complications.

LESSON LEARNED: The strategy adopted by a harmonious manner for COVID-19 vaccination has shown to be effective in reducing hospitalization, the severity of COVID-19 infection, and improving outcomes, especially in vulnerable group. These kind of COVID-19 vaccination programs should continue to improve the outcome of such a disease. The Health and Family Welfare Department in Ariyalur has vaccinated 7187 pregnant women making the District first in the state to achieve 100% coverage. This district also achieved 100% vaccination of patients living with HIV by giving vaccines at their door steps.

KEYWORDS: Coronavirus disease-19 (COVID-19), Pandemic, vaccine hesitancy, vulnerable population

Man Made Disaster

Jayakumar Ponnarasu

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

PROBLEM: Unexpected fire accident occurred in Government Kasturba Gandhi Hospital, neonatal intensive care unit (NICU) in Triplicane, Chennai on 26 May 2021 more than 40 neonates and feeding mothers got stuck in the fire accident.

LOCAL SETTING: A fire had broken out from the split AC in duty doctors room adjacent to the NICU. The entire department was shrouded in heavy fumes, and the fire had spread to an AC outlet that was close to a large room, putting the entire block in grave danger.

APPROACH: I have been trained for fire emergencies 7 years ago, I immediately ran into the accident zone and handled the situation solely before the rescue team arrived. Within half an hour, I had emptied 12 fire extinguishers to put out the fire and reduced the thick smog.

After bringing the situation under control I myself collapsed. I was treated in the ICU for five days for multiple problems since I had inhaled large amounts of carbon dioxide and toxic fumes.

RELEVANT CHANGES: After bringing the situation under control, health care workers shifted all neonates to the adjacent ward and mobilized sick neonates to the nearest hospitals. Later all the electric circuits were examined completely and changed the affected parts immediately.

KEYWORDS: Man made disaster, fire accident, rescue

LESSON LEARNT: The proper maintenance of all equipment in frequent intervals and all the health care workers should be trained regarding fire safety and control measures.

Problems Faced During Field Activities

Dr. S. Thiruoli and Dr. R. Ragavi

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE,

PROBLEMS FACED: During field visits and daily OPD there is always a constant barrier in providing services to the people and that causes the failure of most of our IEC activities in the field. The lack of awareness on Medical conditions and difficulties in making people understand the role of PHC is the barrier that we are discussing.

CONTENTS : Discussion about the incidents happened in daily OPD , field people's opinion about the role of PHC and study conducted in field level about the awareness of people on disease burden.

APPROACH TO THE PROBLEM: By creating an awareness to the people , trying to teach the people by conducting Patient support group meetings, frequent camps in village and IEC sessions in PHC .

RELEVANT CHANGES: While conducting those approaches, some people may understand the role of PHC, but it does not cause any effect in their routine. For eg.:people going to GH will only go there, inspite of all our efforts. It takes along time to bring out behavioural changes in public.

LESSONS LEARNED : Teaching old age group and working group mostly lead to failure of IEC activities and most people demand treatment of their choice for quick recovery. To solve this problem ,creating awareness among school students by conducting sessions on medical topics may bring desired changes in the society.

KEYWORDS: Lack of Awareness about Diseases

The Need of Stress Management among health Care Workers due to field level problems

R. Manjula

PROBLEM: This is about discussing the problems faced by the Health Care Workers and the Stress they undergo due to the field challenges.

The health care workers face a lots of problems in the work place while promoting the field level activities and providing health care to the public. They had to face the public and their questions due to the wrong information through media and other fake messages about the health care services.

The health care workers are in a position to educate the public and promote them for a healthy life and they are in apposition to educate them in the following areas Family planning Higher order birth Hazards of home delivery Motivating them for institutional deliveries in government hospitals etc. Corona Vaccination and awareness

LOCAL SETTING: The public is having a prejudice about the health care services

due to spread of fake messages and miscommunication. So they are not convinced by the words of health care workers . This has become a challenge to them.

APPROACH: Providing various techniques to help the health care workers to come out of the stress due to environmental stress ,work pressure like visualisation, SMARTE approach (Silence for 5 minute Mind movie for 5 minutes Affirmations Reading Thanking finally exercise for healthy wellbeing) waking up early morning, Meditation, Power of positive thinking approach to convenience and gain public trust

RELEVANT CHANGES: Initially work stress level was measured and after implementing the above techniques the quantum of stress level has reduced and they were able to work well.

LESSONS LEARNED: By changing the way of thinking and following the appreciation and thanking methods. The convincing skills improved well.

Immediate Attention for Myopia Management - Post covid period

Veerasamy. M,

OPHTHALMIC ASSISTANT, KARUNGALLAKUDI PHC,

MYOPIC EPIDEMIC: Myopia is a major Public Health Problem, common among children. Hence it should be identified early and addressed properly. Otherwise, it leads to permanent impairment and the number of affected children will be doubled by year 2050. Various studies indicate that Myopia is increasing after covid period.

WHY IT NEEDS ATTENTION: Myopia should be addressed early, otherwise it results in lazy eye and leads to high Myopia causing risk of retinal detachment, glaucoma, and macular degeneration and ends up in permanent blindness. The main problem is inability to see black board. Defective vision affects not only children education, but also affects their life.

REASON FOR INCREASING : Myopia Researchers say that too much usage of smart phone, tablet PC and computers are the main reasons for this increase. Most of our children are addicted to digital devices. During covid time children are forced to learn through online; grounded to remain indoors, the time they spent with mobiles has dramatically increased, resulting in defective vision and Myopia.

MANAGEMENT: Already Tamilnadu Government is implementing “Kannoli

Kappom Thittam” for early identification of defective vision and providing spectacles. But there are other important add-on factors need to be considered in Myopia control strategy. We should encourage children to engage in outdoor play activities.

When children are exposed to sun light during their outdoor activity, it helps to secrete more dopamine. Dopamine helps to prevent the development of myopia by preventing the eyeball elongation. Relaxed accommodation, natural bright illumination, good visual field and reduced pupil size are other benefits. Awareness needed among parents and teachers to strictly restrict the usage of electronic gadgets by children. Balance between distance and near work can control myopia onset and progression.

All students from class I to VIII should be made to play compulsorily in outdoors in the sunlight for 45 minutes in the morning. Early sleep in the night is mandatory. Timely intervention to control progression at an early stage may prevent kids from developing Myopia.

KEYWORDS: Myopia, environment, children, control strategy

Strategic Approach in Improving Treatment Adherence of Benzathine Penicillin Secondary Prophylaxis for Rheumatic Heart Disease in School Going Children's of Villupuram District.

Dr. Porkodi S, Dr. Packialakshmi P

PROBLEM: Rheumatic fever complicated by rheumatic heart disease (RHD) is a major contributor to morbidity and premature death among the socio-economically underprivileged population of developing countries. In India the prevalence rate of RHD is estimated around 0.9 /1000 children in the age group of 5-14 years. Benzathine penicillin is a cheap and effective solution for prophylaxis of RHD but complications remain high due to poor adherence.

LOCAL SETTING: In Tamil Nadu it is estimated to be 0.68/1000 as of 2010. Despite effective measures like motivation, health education and sensitization programmes, adherence to RHD prophylaxis is still not convincing and the main reasons are lack of awareness, distance, waiting time, lost track of date and lack of support from family members.

APPROACH: To solve this poor adherence and to minimize complication a strategy was devised at the district level with introduction of (i)Reminder registry and (ii) Inj. benzathine penicillin block level patient support group (iii) Sunday Prophylaxis.

RELEVANT CHANGES: Reminder registry – This strategy employs making reminder calls to patients about their dues

Inj. benzathine penicillin block level patient support group – Block level patient support groups were formed where in patients can interact between them.

Sunday prophylaxis – Since many of the patients are school going children's, prophylaxis is planned on every Sunday.

With the adoption of the above-mentioned strategies, there was a remarkable improvement in patient follow-up of up to 94%

LESSONS LEARNED: Patient friendly strategies can be an effective tool in improving compliance and adherence especially in conditions which needs long term prophylaxis and the same can be implemented Nationwide.

KEYWORDS: Rheumatic heart disease, Secondary prophylaxis, Adherence, Benzathine penicillin

Life Saving Mission - Mch

Dr. S. Samboorna Sankaran Mbbs Assistant Surgeon
Dr.r.meganathan, Dr Tamilselvan,R.vasantha, S.devi
 DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE
 JAYANKONDAM BLOCKARIYALUR HUD , ARIYALUR DT

Ms.Marry 34 years female wife of selvam ,She is a house wife residing in kavatteri , udayarpalam TK,Ariyalur DT.Her last child birth was five month back para – 5, live -3, death – 2(5 full term normal vaginal delivery).She belongs to Nari kuravar community.In her last pregnancy we followed her regularly till her EDD.Her LMP;EDD was not known,her scan EDD was 11.01.2022.She was registered and immunized ,we explained her the complications of high order birth, anaemia and gave multiple counsellings and explained about health services available in PHC for AN and PN mothers.Nutritional supplements given and anaemia correction done by proper follow up.VHN followed the patient and done all AN visit properly.She was made to visit PHC for AN checkups monthly till 7th months and from 8th month twice monthly. After that weekly.Every trimester obstetrics scan was taken and proper evaluation was done. After keen and regular follow up on 04.01.2022 ,she delivered an alive healthy female baby at Government CHC Meensurthy, Jayankondam, Ariyalur DT.She was counselled for under going PS and on 06.01.2022 she underwent PS at Jayamkondam GH.Post op mother and baby were followed by our health workers and safely discharged home.VHN done all Post Natal visits.

Problems:

- Ignorance
- Noncooperative patient
- Nomadic life style of patient

Local setting:

- Unhygienic environment
- Isolated from village population

Approach

- Area visit
- Assurance and awareness
- PHC visit
- Multiple counselling
- Free nutritional supplements and AN Scans

Relavent Changes:

- Measures taken Disinfections of area, Monthly high risk camps, Family planning counselling, proper AN and PN home visits

Strategy:

- Create awareness about healthcare services available in PHC

Impact:

Delivered at community health centres
 PS done after fifth delivery

Lesson learnt:

- Effect of multiple coounselling
- Need of special strategy apporaxch for nomadic populations



DPHICON 2022 PRE – CONFERENCE WORKSHOP 05.12.2022

HALL A
ISLE OF WIND

THEME : OPERATIONAL RESEARCH ON PUBLIC HEALTH

Chairperson: **Dr. G. Jerard Maria Selvam**, Additional Director of Public Health
Dr. S. Sudharshini, Associate Professor of Community Medicine, MMC

TIME	OPERATIONAL RESEARCH AND PROTOCOL DEVELOPMENT	SPEAKERS
09.30am - 9.35am	Welcome and Introduction about Academy for Public Health	Dr. K. Shivaram Selvakumar Senior Advisor, Academy for Public Health
09.35am - 10.00am	Operational Research: what, why and how? Operational Research into policy and practice	Dr. DSA Karthickeyan Founder and Chair, Academy for Public Health
10.00am - 10.30am	Research principles: determinants and outcomes	Dr. Thaddeus Alfonso Secretary General, Academy for Public Health
10.30am - 11.00am	Research terminology and definitions: Study design, Population, Sampling, and Variables	Dr. Thaddeus Alfonso Secretary General, Academy for Public Health
11.00am - 11.15am	Tea Break	
11.15am - 12.15pm	The research questions and Protocol development	Dr. DSA Karthickeyan Founder and Chair, Academy for Public Health
12.15pm - 12.40pm	How to do a literature search using, PUBMED and Demonstration of the use of a reference management tool Mendeley	Dr. DSA Karthickeyan Founder and Chair, Academy for Public Health
12.40pm - 01.00pm	Ethics Considerations of Research Protocols	Dr. Thaddeus Alfonso Secretary General, Academy for Public Health
01.00pm - 01.15pm	The role of investigators and authors and English Language for Medical Writing	Dr. Vanithapriyaa Program Manager, Academy for Public Health
01.15pm - 02.00pm	Lunch Break	
SCIENTIFIC PAPER WRITING		
02.00pm - 02.15pm	Publishing without perishing, Refreshing data analysis	Dr. DSA Karthickeyan Founder and Chair, Academy for Public Health
02.15pm - 02.40pm	Paper Narrative: Introduction, Methods, Results, Discussion	Dr. Thaddeus Alfonso Secretary General, Academy for Public Health
02.40pm - 02.55pm	Tables and figures	Dr. Vanithapriyaa Program Manager, Academy for Public Health
02.55pm - 03.10pm	Abstract, Title, Funding, authorship	Dr. DSA Karthickeyan Founder and Chair, Academy for Public Health
03.10pm - 03.25pm	Tea Break	
03.25pm - 03.40pm	Submission of the paper and peer review, Dealing with peer review and Communication after publication	Dr. Thaddeus Alfonso Secretary General, Academy for Public Health
03.40pm - 04.00pm	English Language for Medical Writing publication	Dr. Vanithapriyaa Program Manager, Academy for Public Health

HALL B
ISLE OF WATER

THEME : IMPORTANCE OF CIVIL REGISTRATION AND VITAL STATISTICS IN PUBLIC HEALTH

Chairperson: **Mr. Sajjan Singh R. Chavan, I.A.S.**, Director of Census Operations & Joint Registrar General of India
Mrs. VR Sumathi, Joint Director, State Bureau of Health Intelligence

TIME	TOPICS	SPEAKERS
09.15am – 09.30am	What is Civil Registration and Vital Statistics?	Dr. Hilde De Craeve Team Leader – Health System, WHO
09.30am – 09.45am	Birth and Death Registration - Turning all Stones	Mr. Sajjan Singh R. Chavan IAS Director of Census Operations & Joint Registrar General of India
09.45am – 10.00am	RBD act & processes for event registration in Tamil Nadu	Mrs. VR Sumathi Joint Director, SBHI, Tamil Nadu
10.00am – 11.30am	Ascertaining causes of death & group work	Dr. Chalapati Rao Associate Professor, Australian National University Dr. Anand Kumar Paulraj State CRVS Officer, WHO – India
11.30am – 11.50am	Tea Break	
11.50am – 01.20pm	Digitizing cause of death information (e-Mor)	Dr. Sukanya R Scientist – E, NCDIR (ICMR) Dr. Abishek S State Nosologist, State Bureau of Health Intelligence
01.20pm – 01.30pm	Feedback & Vote of thanks	



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HALL C
BALL ROOM 1

THEME : SOCIETAL DYNAMICS IN PUBLIC HEALTH

Chairperson: **Dr. K.S.T. Suresh**, Joint Director of Public Health (PHC)
Prof. Keith Gomez, Former professor of Social work, Loyola College, Psychotherapist, Chennai

TIME	TOPICS	SPEAKERS
9.30am - 10.00am	Role of Medical Social Work in Public Health Interventions Session Chairpersons: Dr. K. Sekar , DPSSDM Consultant - PWB, Ms Uma Suresh , Freelance Counselor and Trainer	Dr. M.D.Rohini Krishnan Former Social Welfare Officer Mr.G. Augustine Social Worker, LCECU, CMC
10.00am - 11.00am	Psychiatric Social Work - Solutions for Mental Health Challenges as Public Health Burden Session Chairpersons: Dr. Sinu , Dept of Social Work NIMHANS, Dr. Kirubakaran , Research Assistants Schizophrenia Research Foundation	Ms. Sangeetha Research Officer (SCARF) Dr. Kirubakaran Prof. Social Work Loyola College Prof. Preenu Ashok Consultant Psychotherapist
11.00am - 11.15am	Tea Break	
11.15am - 12.15pm	Children and Family Social Work and Health Session Chairpersons: Prof. Fr. Das , Student Counsellor Arulanatham College	Prof. Dr. Francis Adaikkalam AP Faculty in Social Work Loyola College
12.15pm - 01.15pm	Social Work Research for Public Health- Beyond SDG Session Chairpersons: Prof. Dr. Simon , Managing Trustee Interdependent Compassion Trust (ICT) Health reforms in Special Groups Session Chairpersons: Prof. Dr. Simon , Managing Trustee Interdependent Compassion Trust (ICT)	Dr. Lalitha Faculty, RGNID, Sriperumbudur Dr. K.Sekar Consultant – DPSSDM Consultant - PWB
01.15pm - 01.45pm	Social Work & Public Health: Future Collaboration to Enhance Patient Care in Tamil Nadu	Dr. Anish Associate Professor Rajagiri Medical of Social Science

HALL D
BALL ROOM 2

THEME : HEALTH ECONOMICS IN PUBLIC HEALTH

Chairperson: **Dr. V. Satish Ragavan**, Joint Director of Public Health (TANSACS)
Dr. Muraleedharan. VR. Ph.D., Professor, Department of Humanities and Social Sciences, IIT

TIME	TOPICS	SPEAKERS
10.00am - 10.30am	Quantifying Health benefits- Insurance and Public Health	Prof. Mariappan HOD Health Economics TISS, Mumbai.
10.30am - 11.00am	Economic Evaluation of data	Dr. M. Muniyandi Scientist C, NIRT
11.00am - 11.15am	Tea Break	
11.15am - 11.45am	Economic Modelling for Evidence Based Decision Making	Dr. Antony Stanley Senior Research Officer, SCTIMST
11.45am - 12.30pm	Need for Financial Navigation services to alleviate Financial distress	Dr. Prasanna Thirunavukkarasu Associate Professor, Department of Community and Family Medicine AIIMS Jodhpur



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DPHICON 2022 PRE – CONFERENCE WORKSHOP 05.12.2022

HALL E
NAUTICA
Part 1

THEME : RECENT ADVANCES IN LEGISLATION RELATED TO PUBLIC HEALTH

Chairperson: **Dr. P. Sampath**, Joint Director of Public Health (Communicable Diseases)

TIME	TOPICS	SPEAKERS
09.30am - 10.15am	Public Health Act- Time to Amend	Dr. Mathivanan Retd. Deputy Director Public Health
10.15am - 11.00am	Safe food is a Public health Priority- Through The FSSAI	Dr. T. A. Devaparthasarathy Additional Commissioner Food Safety, Tamil Nadu
11.00am - 11.30am	Tea Break	
11.30am - 12.30pm	Challenges in Child Health- Protection of Children From Sexual Offences Act - POCSO	Mr. Dhanasekara Pandiyan Joint Director, Dept of Social Defence Govt of Tamil Nadu
12.30pm - 01.30pm	Lunch Break	
Part 2	Chairperson: 1. Dr. K. Krishnaraj, Joint Director of Public Health (Non - Communicable Diseases)	
01.30pm - 02.15pm	Legal support for Mental Health	Dr. M. Malaippan HOD Psychiatry, Kilpauk Medical College and Hospital
02.15pm - 03.00pm	Ending Discrimination- HIV Act and Transgender act	Dr. L. Ramakrishnan Vice President SAATHI
03.00pm - 03.15pm	TEA BREAK	
03.15pm - 04.00pm	Ensuring tobacco Free generation - COTPA	Mr. S.Cyril Alexander Professional Social Worker, Founder, MACT

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PORT HALL

THEME : COMPANION IN TAMIL NADU PUBLIC HEALTH JOURNEY

Chairperson: **Dr. C. Sekar**, Additional Director of Public Health and Preventive Medicine

TIME	TOPICS	SPEAKERS
9.30am - 10.00am	Social Welfare Support programs - Abuse against Orphaned, Children, Women and Geriatric groups	Mr. Dhanasekara Pandiyan Joint Director, Dept of Social Defence Govt of Tamil Nadu
10.00am - 10.30am	Nutrition and Public health- Interdisciplinary Approach	Ms. V. Amudhavalli IAS Director ICDS, Department of Social Welfare
10.30am - 11.00am	Building the Future- School and Public Health	Mrs. Anitha Joint Director (NSS), Department of School Education
11.00am - 11.15am	Tea Break	
11.15am - 11.45am	Disaster Resilience - Joint hands of revenue and Public Health	Dr. Rajamanikam Muruganandh Capacity Building and Training Consultant
11.45 am- 12.15pm	Challenges in delivering urban Health Services	Dr. M. Jagadeesan City Health Officer, GCC
12.15pm - 12.45pm	DRDA - For Healthy Villages- with Focus on WASH	Dr. Narnaware Manish Shankarrao IAS Additional Director Rural Development (General)
12.45pm - 02.00pm	Lunch Break	
02.00pm - 03.00pm	Comprehensive primary health care nurses as Trendsetters to combat NCD	Dr. S. Ani Grace Kalaimathi Registrar, Tamil Nadu Nursing Council
03.00pm – 03.45pm	Differently abled - Reflections	Ms. Jacintha Lazarus I.A.S Commissioner for welfare of the differently abled



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Date: 06.12.2022

DPHICON 2022

Day 1

TIME	TOPICS	SPEAKERS				Hall A Ball Room
9.20am - 9.30am Purpose of the Conference	DPHICON 2022 : Conceptualization	Dr. T.S. Selvainayagam Director of Public Health and Preventive Medicine				
9.30am - 9.50am Plenary Session 1	Global Health Security Agenda	Ms. Sangita Patel Director, Health Office, USAID				
9.50am - 10.50am Panel Discussion 1	Public Health Cadre & Effective Implementation of PH Act : An Introduction and Way forward Panelists: Dr. Aarushi Bhatnagar Senior Economist Health, World Bank Dr. Sunil Nandraj Former Advisor, Government of India Dr. P. Kuganantham Consultant, Social Medicine and Infectious Diseases, SIMS Hospital	Dr. Pankaj Badamilal Shah Head of the Department, Social and Preventive Medicine, SRMCH Dr. N.Chitra Officer on Special Duty (OSD) in the cadre of Director, DPH&PM				
10.50am - 11.10am Tea Break						
11.10am - 12.20pm Panel Discussion 2	Climate Change and Human Health - The Unfinished Agenda Panelists: Dr. Marion Jane Cros Senior Health Specialist, World Bank Dr. Chitra Grace Associate Professor, Global Institute of Public Health, Trivandrum Prof. Kalpana Balakrishnan Dean (Research) & Director, SRIHER Dr. Poornima Prabhakaran Director, Centre for Environmental Health, Public Health Foundation of India	Ms. Supriya Sahu IAS Additional Chief Secretary to Government of Tamil Nadu (Environment, Climate Change and Forests Department) Dr. Rameshwar Sorokhalban Deputy Director, National Programme on Climate Change and Human Health Dr. K.C. Seran Additional Director, NHM				
12.20pm - 12.40pm Plenary Session 2	UHC : Seamless integration of Primary, Secondary and Tertiary care services	Dr. Manoj Jhalani Director, Department of Health Systems Development, SEARO, World Health Organization				
12.40pm - 1.00pm Plenary Session 3	Sustainable Development Goals and Tamil Nadu Health Systems, 2030	Dr. Darez Ahamed IAS Commissioner, Department of Rural Development and Panchayat Raj, Government of Tamil Nadu				
1.00pm - 1.20pm Plenary Session 4	Nurse empowerment through regulations and policies	Dr. Annie Grace Kalaimathi Registrar, Tamil Nadu Nurses & Midwives Council				
1.20pm - 2.00pm Lunch Break						
2.00pm - 2.20pm Plenary Session 5	Public Health Challenges in Global, National and State Context	Dr. Sudha Seshayyan M.S Vice Chancellor, Tamil Nadu Dr MGR Medical University				
2.20pm - 3.20pm Panel Discussion 3	Covid - 19 Spectrum and Continuing Challenges in Achieving SDGs Panelists: Dr. Sitanshu Sekhar Kar Professor & Head, Preventive & Social Medicine, JIPMER Dr. Jayaprakash Mulyil Prof. of Community Medicine & Consultant, Division of GI Sciences, CMC Vellore Dr. Sujete Kumar Singh Principal Advisor, National Centre for Disease Control (NCDC), Delhi	Dr. K. Surendhiran Surveillance Medical Officer, WHO - India, Chennai Dr. A. Somasundaram Director, Institute of Community Medicine, MMC				
3.20pm - 3.40pm Tea Break						
3.40pm - 4.50pm Panel Discussion 4	Financing Primary Health Care: Global Lessons to Identify Opportunities for Tamil Nadu Panelists: Thiru. N. Muruganandam, IAS Additional Chief Secretary to Government of Tamil Nadu (Finance) Dr. Valeria De Oliveira Cruz Regional Adviser for Health Financing and Governance, SEARO, WHO Prof. Soonman Kwon Professor, School of Public Health, National University Seoul Dr. Edson Correia Araujo Senior Economist, World Bank	Dr. Trina Haque Practice Manager, HNP SAR, World Bank Prof. V.R. Mureeddearan Faculty member, Department of Humanities and Social Sciences, IIT Madras Dr. C. Sekar Additional Director UHC, DPH & PM				
4.50pm - 5.10pm Plenary Session 6	Emerging NCDs Including NAFLD, Colon CA, CRDs etc	Dr. Graeve Hilde Rene Susanne Team Leader (Health Systems) WHO Country Office for India				
5.10pm - 6.10pm Panel Discussion 5	Combating Challenges due to Lifestyle Changes, Substance Abuse and Cross Cutting Risk Factors Panelists: Dr. M. Suresh Kumar Research & Development Director, Cities RISE Dr. Rana J Singh Deputy Regional Director, The Union, South East Asia Dr. V. Sabitha Prof. & Head of the Department, Psychiatry, Govt. Chengalpattu Medical College and Hospital	Dr. P.P. Kanan Professor of Psychiatry, RGGGH and MMC Dr. V. Satish Raghavan AIDS Director, Tamil Nadu State AIDS Control Society				
6.10pm - 6.30pm Plenary Session 7	Primary Health Care and NCD Control - Gaps and Challenges	Dr. Tom Frieden (Virtual) President & CEO, Resolve to Save Lives (RTSL)				
TIME	HALL B ISLE OF WIND	HALL C ISLE OF WATER	HALL D PORT HALL	HALL E NAUTICA		
2.00pm - 5.30pm	Session 1 (* Session includes 20 Oral Presentations)	Session 2 (* Session includes 20 Oral Presentations)	Session 3 (* Session includes 20 Oral Presentations)	Quiz Prelims for Post-Graduates Quiz Prelims for Medical Officers Quiz Prelims for Staff Nurses / VHN/SHN/CHN/ANM Quiz Prelims for Health Inspectors / BHS		

** Presenters will be allowed 7 mins for Presentation & 2 mins discussion

CULTURALS / BANOUET @06.30pm

DPHICON 2022



Date: 07.12.2022

DPHICON 2022

Day 2

TIME	TOPICS	SPEAKERS				Hall A Ball Room
9.30am - 9.50am Plenary Session 1	Galvanising Multi Sectoral Resources for Achieving Public Health Goals	Dr (Tmt) Beela Rajesh IAS Principal Secretary & Commissioner, Land Reforms, Government of Tamil Nadu				
9.50am - 10.10am Plenary Session 2	Leveraging the Learnings from COVID Vaccination for Routine Immunization	Dr. Pradeep Haldar Former Expert Advisor, Government of India				
10.10am - 10.30am Plenary Session 3	COVID 19 : Public Health Emergency - A Learning Experience from Tamil Nadu	Dr. J. Radhakrishnan IAS Principal Secretary to Government, Co-operation, Food and Consumer Protection Department, Govt. of T.N.				
10.30am - 11.30am Panel Discussion 1	Disease Surveillance	Chair cum Moderator Dr. Ruma H. Gokhale Associate Director for Science and Programs, Division of Global Health Protection				
	Panelists: Capt. Michael Friedman Global Public Health Specialist, Center for Disease Control (CDC), USA Dr. Venkata Raghava Mohan HOD and Professor, Community Health and Dev (CHAD), CMC, Vellore Dr. Asha Raghavan Sub Regional Team Leader, WHO - India, Chennai Dr. Govindarajulu Srinivas Professor & Head, Department of Epidemiology, The Tamil Nadu Dr MGR Medical University					
11.30am - 11.50am	Tea Break					
11.50am - 12.10pm Plenary Session 4	Revisiting the Public Health Strategies for Incremental Reduction of MMR & IMR beyond SDGs	Dr Kaushik Ganguly Social Policy Specialist (Child Survival), UNICEF India, Field Office for Tamil Nadu & Kerala				
12.10pm - 12.30pm Plenary Session 5	Innovations in Primary Health Care - Learnings from Brazil	Dr. Edson Correia Araujo Senior Economist, World Bank				
12.30pm - 1.30pm Panel Discussion 2	One Health Approach	Chair cum Moderator Maj Gen (Prof) Atul Kotwal, SM, VSM Executive Director, National Health Systems Resource Centre				
	Panelists: Dr. Dinesh Nair Senior Health Specialist, World Bank Dr. Ashwani Kumar Scientist-G and Director, VCRC, Pondicherry Dr. Reuben Swamickan Division Chief, TB & Infectious Diseases, USAID Prof. Rahul Narang Dean and Head of the Department, Microbiology All India Institute of Medical Sciences, Bhopal Dr. P. Manickam Scientist F (Epidemiology) Head, Division of Online Courses, NIE Dr. Jerard Maria Selvam Additional Director, NHM					
1.30pm - 2.10pm	Lunch Break					
2.10pm - 2.30pm Plenary Session 6	Enhancing managerial capacity and soft skills among Primary care professionals	Dr. Sanju Thomas Abraham Managing Director, Tamil Nadu Apex Skill Centre for Health Care				
2.30pm - 2.50pm Plenary Session 7	Revisiting the need for Multi - Tasking / Task Shifting / Putting into Practice the Learnt Skills	Dr. Himanshu Bhusan Advisor, Public Health Administration, National Health System Resource Centre (NHSRC)				
2.50pm - 3.50pm Panel Discussion 3	PPP Model in Public Health	Chair cum Moderator Dr. Sai Subhasree Raghavan Founder President and Managing Trustee, SAATHI				
	Panelists: Dr. Vikram Rajan Senior Health Specialist, World Bank Dr. Ramanana Rao President, GVK - EMRI Mr. Kumar Varadhan HOD of HR, IOC, Tamil Nadu & Puducherry Dr. R. Chandrashekhar Chairman IGBC, Consultant, World Bank Dr. Suranjan Prasad Pallipamula Director, Partnerships, Strategies and Programs, JHIEGO Dr. S. Bhavani Uma Devi Additional Director, TNHSRP					
3.50pm - 4.10pm	Tea Break					
4.10pm - 4.30pm Plenary Session 8	Integrating IT platform for Capacity Building for Public Health Interventions	Thiru. Arun Kumar Selvaraj Deputy General Manager, Projects, ECHO India				
4.30pm - 4.50pm Plenary Session 9	THAIMAI - Tool for Effective Tracking of Mothers and Children	Dr. R. Arulananand State RMNCHA Consultant, UNICEF - India				
4.50pm - 5.50pm Panel Discussion 4	Achieving Disease Elimination as per SDGs (TB, Malaria, Filaria, Measles, Rubella, Tetanus, Rabies)	Chair cum Moderator Dr. Mohan D Gupte Founder Director (Retd.), NIE & ICMR School of Public Health				
	Panelists: Dr. ShyamKumar Sriram Assistant Professor (Tenure-Track), Ohio University, Athens Dr. Nirmal Joe Senior Regional Director (H & FW), ROHPW, Government of India Dr. C. Padmapriyadarshini Director, National Institute of Research in Tuberculosis - ICMR, Chennai Dr. Kannan Chairman of Academy of Medical Specialties, IMA Dr. G. Amalraj EB Member, IAPTNSC Dr. P. Vadivelan Officer on Special Duty (OSD) in the cadre of Director, DPH&PM					
5.50pm - 6.10pm Plenary Session 10	Building the future - School based Primary care interventions	Dr. Kanchana Khan Principal cum Research Director, Omayal Achi College of Nursing				
6.10pm - 6.30pm	Community Mental Health for Staff Nurses - Need of the Hour	Dr. Fabiola Principal, Meenakshi College of Nursing				
TIME	HALL B ISLE OF WIND	HALL C ISLE OF WATER	HALL D PORT HALL	HALL E NAUTICA		
11.30am - 1.00pm	Session 4 (* Session includes 10 Oral Presentations)	Session 5 (* Session includes 10 Oral Presentations)	Session 6 (* Session includes 10 Oral Presentations)	Perspectives 1 (* Session includes 10 Oral Presentations)		
2.00pm - 5.30pm	Session 7 (* Session includes 20 Oral Presentations)	Session 8 (* Session includes 20 Oral Presentations)	Session 9 (* Session includes 20 Oral Presentations)	Nursing Session 1 (* Session includes 22 Oral Presentations)		

** Presentation will be allowed 7 min for Presentation & 2 min discussion

CULTURALS / BANQUET @06.30pm

DPHICON 2022



Date: 08.12.2022

DPHICON 2022

Day 3

TIME	TOPICS	SPEAKERS	Hall A Ball Room	
9.30am - 9.50am Plenary Session 1	Emerging & Re-emerging Infectious Diseases : Handling the Uninvited Visitors	Dr. Soumya Swaminathan Chief Scientist, World Health Organization		
9.50am - 10.10am Plenary Session 2	Time Tested Drugs & Equipment Logistics System to reach the last mile health care delivery in Tamil Nadu	Thiru. Deepak Jacob IAS Managing Director, Tamil Nadu Medical Services Corporation		
10.10am - 10.30am Plenary Session 3	Rational Prescribing/Anti-Microbial Resistance	Dr. Daniel vander Ende Medical Officer, Division of HealthCare Quality Program, Centre for Disease Control and Prevention, USA		
10.30am - 10.50am Plenary Session 4	Support of COWIN in India's fight against COVID Pandemic and Repurposing this Technology through Digital Public Goods (DPGs) for Universal Immunization Programs	Thiru. Abhimanyu Saxena Officer in Charge, Health Systems Strengthening, UNDP, India Country Office		
10.50am - 11.10am Plenary Session 5	Co-designing a Playway intervention for Teachers and Students on Handwashing importance and avoiding open air defecation	Prof. Eric Gordon (Virtual) Professor & Director, Engagement Lab Assistant Dean of Civic Partnerships, School of the Arts, Emerson College, USA		
11.10am - 11.30am Tea Break				
11.30am - 12.50pm Plenary Session 6	<ol style="list-style-type: none"> Tamil Nadu model of Public Health / Role of Public Health Department in Tamil Nadu Health system - A Centenary Journey Role of Food Safety Department in Ensuring Public Health Journey of Public Health Care Delivery in control of HIV, AIDS and way forward Investing in Primary Health Care - A step towards Universal Health Coverage Additive effects of AYUSH services in control of Non-communicable Diseases Clean air, Water, Sanitation, General waste management in prevention of Non-Communicable & Communicable diseases Scope of Government Health Insurance schemes in Primary Health Care services Human Resource Management in Primary Health Care - Role of Medical Services Recruitment Board (MSRB) 	Dr. P. Senthil Kumar IAS Principal Secretary, Health and Family Welfare Department, Govt. of Tamil Nadu Thiru. R. Lalvena IAS Commissioner, Food Safety and Drug Administration Department, Govt. of Tamil Nadu Thiru. T.N. Hariharan IAS Project Director, Tamil Nadu State AIDS Control Society Tmt. Shilpa Prabhakar Sathesh IAS Mission Director, National Health Mission Dr. S. Ganesh IAS Commissioner, Indian Medicine & Homeopathy Thiru. P. Ponniah IAS Director of Municipal Administration Dr. S. Uma IAS Project Director, Tamil Nadu Health Systems Project Thiru. A.R. Gladstone Pushpa Raj IAS Chairman, Medical Services Recruitment Board		
12.50pm - 1.10pm Plenary Session 7	Artificial Intelligence and Machine Learning Systems in Public Health	Ms. Aparna Krishnan Project Director, J-Pal, South Asia		
1.10pm - 1.50pm Lunch Break				
1.50pm - 2.10pm Plenary Session 8	Ethical dilemma / Ethical considerations in decision making in implementing Public Health interventions	Prof. Brogen Singh Akoijam Dean, Regional Institute of Medical Sciences, Imphal, Manipur		
2.10pm - 3.10pm	Special Session for Media			
3.10pm - 3.30pm Plenary Session 9	e-Lab Solutions for Community Health (LIMS)	Dr. V.S. Dhruwey (Virtual) Chief District Health Officer in Kheda district, Gujarat		
3.30pm - 3.50pm Plenary Session 10	Baseline Assessment of Cold Chain Points in the State 2020-21	Ms. Pooja Sanghvi State Consultant, UNICEF - India, Field office for Tamil Nadu and Kerala		
3.50pm - 4.10pm Plenary Session 11	Quality Improvement Interventions in Health Care Facilities through TNHSRP	Dr. R.M. Meenakshi Sundari Team Leader - Quality Improvement Wing, Tamil Nadu Health Systems Reform Program		
4.10pm - 4.20pm Tea Break				
TIME	HALL B ISLE OF WIND	HALL C ISLE OF WATER	HALL D PORT HALL	HALL E NAUTICA
11.00am - 2.00pm	Session 10 (* Session includes 15 Oral Presentations)	Session 11 (* Session includes 15 Oral Presentations)	Quiz for Post - Graduates Finals	Quiz Final for Staff Nurses / VHN/SHN/CHN/ANM
			Quiz for Medical Officers Finals	Quiz Final for Health Inspectors

** Presentors will be allowed 7 mins for Presentation & 2 mins discussion

5.00pm VALEDICTORY FUNCTION

REVIEWER'S LIST

Name	Designation	Institution
Dr.M.Thiruvekadam	Assistant Professor	Government Theni Medical College
Dr. A.Velmurugan	Assistant Professor	Government Theni Medical College
Dr.S.Priya	Professor	Government Madurai Medical College
Dr.A.Ra.Boornema	Assistant Professor	Government Madurai Medical College
Dr.B.Hemamalini	Assistant Professor	Government Madurai Medical College
Dr.A.Sakthivel	Assistant Professor	Government Madurai Medical College
Dr.M.Selvameena	Assistant Professor	Government Virudhunagar Medical College
Dr Susila T	Assistant professor	Govt Stanley medical college
Dr Evangeline Mary A	Assistant professor	Govt Stanley medical college
Dr Tamil Arasi R	Assistant professor	Govt Stanley medical college
Dr Yamuna Devi R	Assistant professor	Govt Stanley medical college
Dr Krithiga S	Assistant professor	Govt Stanley medical college
Dr Senthilarasi D	Assistant professor	Govt Stanley medical college
Dr.Pankaj	Professor	Sri Ramachandra Medical College
Dr. Priya Senthilkumar	Professor	Madras Medical College
Dr. Mary Ramola	Professor	Kilpauk Medical College
Dr. Sudharshini	Associate Professor	Madras Medical College
Dr. P. Manickam	Scientist- F	National Institute of Epidemiology
Dr. Tarun Bhatnagar	Scientist-F	National Institute of Epidemiology
Dr. Bhavani Shankara Bagepally	Scientist-E	National Institute of Epidemiology
Dr. Jeyashree Kathiresan	Scientist-D	National Institute of Epidemiology
Dr. S.A. Rizwan	Scientist-D	National Institute of Epidemiology
Dr. M. Santhosh Kumar	Scientist-C	National Institute of Epidemiology
Dr. Leebark Raja	Scientist 'E' (Medical)	National Institute for Research in Tuberculosis
Dr. Bhavani PK	Scientist 'D' (Medical)	National Institute for Research in Tuberculosis
Dr. Karikalan N	Scientist 'C' (Socio-Behavioural Research)	National Institute for Research in Tuberculosis

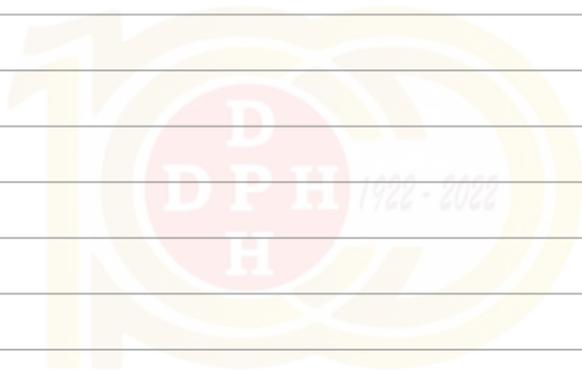
Name	Designation	Institution
Dr. Vasantha M	Technical Officer-C (Statistics)	National Institute for Research in Tuberculosis
Dr Thaddeus Alfonso	Mental Health, Training, Program Management, Operational Research	"Academy for Public Health, (WHO/TDR SORT IT collaborating institution), Palakkal House, Kotttooli"
Ms Vanitha Priya	Operational Research, Water treatment, Environmental Health	"Academy for Public Health, (WHO/TDR SORT IT collaborating institution), Palakkal House, Kotttooli"
Dr Kalpita	Operational Research, TB, HIV, Communicable diseases, NCD, Public Health, Medical Education, MCH, RCH	Baroda Medical College, Vadodara
Dr Kedar	Operational Research, TB, HIV, Communicable diseases, NCD, Public Health, Medical Education, MCH, RCH	GMERS Medical College Gotri, Vadodara, Gujarat
Dr Vinayagamoorthy	Operational Research, TB, HIV, Communicable diseases, NCD, Public Health, Medical Education, MCH, RCH	All India Institute of Medical Sciences, Deoghar, Jharkhand
Dr Kalaiselvi	Operational Research, TB, HIV, Communicable diseases, NCD, Public Health, Medical Education, MCH, RCH	All India Institute of Medical Sciences, Nagpur
Dr Mohan	Oncology,	Malabar Cancer Centre, Thaassery-670103, Kerala
Dr. R. SENTHIL KUMAR	Professor	Madras Medical College
Dr. A. CHITRA	Professor	Madras Medical College
DR.VIJAYALAKSHMI.M	Professor	Madras Medical College
Dr.J.ANAIAPPAN	Professor	Madras Medical College
DR.UMAMAGESHWARI.R	Professor	Madras Medical College

Name	Designation	Institution
DR.KUMAR CAROLINE PRIYA	Professor	Madras Medical College
DR.VIJAYAKUMAR.M	Assistant Professor	Madras Medical College
DR.P.R. THIRUMALAIKUMAR	Assistant Professor	Madras Medical College
DR.B.PRABAKARAN	Assistant Professor	Madras Medical College
DR.S.M.BALAJI	Assistant Professor	Madras Medical College
DR.C.SAMYKKHAN	Assistant Professor	Madras Medical College
DR.V.DAMODARAN	Assistant Professor	Madras Medical College
Dr.SENTHIL RAJKUMAR.K.S	Assistant Professor	Madras Medical College
DR. ARAVINTH RAM.A	Assistant Professor	Madras Medical College
Dr Manikandanesan SNIE		Safety net
Dr Anusha SPM DPH		Ariyalur Medical College
Dr Savitha		Private
Dr Ravi Varman MPH Pondy		WHO
Dr Biswajit MPH		West Bengal Health Department
Dr Asha MPH	Addl Director of Medical and Rural Health services and State TB Officer	DPH
Dr Rachna William	Regional Technical Manager	JSI
Dr Naveen Paul	State AEFI Consultant	JSI
Dr Parthiban	DD	DPH
Dr Prakash Venkatesan	MPH	DPH
Dr Vidhya Vishwanathan	DD- NCD	DPH

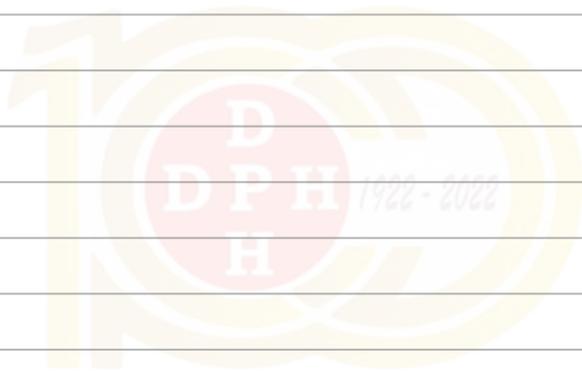
LIST OF CONTRIBUTORS

Name	Designation	Institution
Dr. T.S. Selvavinayagam	Director	DPH
Dr. A Somasundaram	Additional Director	DPH
Dr. Jerard Maria Selvam	Additional Director	NHM
Dr. K Vinay kumar	Joint Director, Immunisation	DPH
Dr. Vidhya Viswanathan	Deputy Director, NCD	DPH
Dr. Pradeep M	Medical Officer	DPH
Dr. Vijay Suraj H M	Medical Officer	DPH
Dr. Aravind Raj	Medical Officer	DPH
Dr. Sakthivel	Medical Officer	DPH
Dr. S.M. Dharani	Medical Officer	DPH
Dr. A.M. Abdul Rahman	Post Graduate	MMC
Dr. M. Tamil Amudhan	Post Graduate	MMC
Dr. P.S. Priyanka	Medical Officer	DPH
Dr. S. Abinaya	Medical Officer	DPH
Dr. A. Pavithra	Medical Officer	DPH
Mr. Badri	Statistician	NHM
Mr. Ranjith	Web developer	DPH

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