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Background: *e*Health literacy refers to the ability to seek, understand, evaluate, and apply health information from digital sources to address health issues. While a few studies have examined *e*Health literacy in Sri Lanka, research among healthcare professionals, particularly health education nursing officers (HENOs), is scarce. The HENOs play a key role in patient education within hospitals, yet no studies have validated *e*Health literacy tools specifically for this group.

Aims: To assess the level of *e*-health literacy and its associated factors among HENOs working in government hospitals of Sri Lanka

Methods: A descriptive cross-sectional study was conducted using the *e*HEALS scale. A total of 116 HENOs working in government hospitals were invited to participate in the study. Content validity of the instrument was assessed by an expert panel of eight members, and pre-testing was conducted among ten nursing officers. Exploratory factor analysis (EFA) was performed to evaluate construct validity.

Results: The response rate was 65.5% (n=76). The mean *e*HEALS score was 31.34 (SD=4.3) out of a maximum of 40. A statistically significant positive correlation was found between *e*HEALS scores and work experience as a HENO (Kendall's tau-b=0.224; p=0.014). However, no significant correlations were observed between eHEALS scores and age (Pearson r=-0.075; p=0.518) or educational level (Kendall's tau-b=0.094; p=0.325). The EFA fit into a unidimensional model and 60.97% of the variance explained. The Cronbach's alpha for the scale was 0.9.

Conclusions: The *e*HEALS scale demonstrated unidimensionality, consistent with the original authors' findings, and proved to be a valid and reliable tool for assessing eHealth literacy among HENOs in Sri Lankan government hospitals.

Key words: *e*-health literacy, *e*HEALS, Health education, Nursing officers

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OP 2

Assessment of available information technology infrastructure in medical officer of health (MOH) offices in Galle District, Sri Lanka

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Background: Information technology (IT) has become a key necessity for public health services. Therefore, developing adequate IT infrastructure at the MOH level is essential.

Aims: To assess the current status of IT infrastructure in MOH offices and describe the perceptions of public health staff in Galle District, Sri Lanka

Methods: An IT facility survey was conducted by interviewing all MOHs. A Google based self-administered questionnaire was used to gather further opinions. The survey was conducted by IT Unit of the Regional Director of Health Services Office, Galle.

Results: The average number of functioning laptops owned by the MOHs was 2.2 (range: 1-4) and of functioning desktop computers was 2.6 (range: 1-5). Eleven (55%) MOHs were having two or less laptops, while 7 (35%) were having two or less desktops. However, only 3 (15%) MOHs were having three or less laptops + desktops. Except in one, laptops and desktops of all MOHs were assigned; and the development officers, supervising public health inspectors and nursing sisters were the common assignees. Only 9 (45%) MOHs acknowledged that they have sufficient computers and other IT devices to carry out public health activities. Seven (35%) MOHs reported that the functionality of the computers was slow. Out of 20 MOHs, 90% were having internet connections, while only 1 (5%) was having fibre connections. Only 7 (35%) MOHs reported that their internet connection works satisfactorily.

Conclusions: Availability of laptop and desktop computers was perceived as insufficient by MOH teams and internet connections in majority of MOHs were perceived as not satisfactory.

Key words: Information technology infrastructure, Medical officer of health offices, Galle District, Sri Lanka

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OP 3

From screen to street: a video-based intervention to improve helmet use awareness among motorcyclists

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Background: Motorcyclists are vulnerable road users. A pre-intervention assessment conducted at the Accident Service Unit of the National Hospital of Sri Lanka (NHSL) revealed that 11.93% of motorcycle crash victims were not wearing helmets at the time of the crash. As a targeted intervention, a 55-second video was developed and aired on social media (https://youtu.be/Zb0EXLIMUO4) to improve awareness of helmet use among motorcyclists.

Aims: To assess the effectiveness of a video-based intervention (VBI) in improving the helmet use awareness among motorcyclists

Methods: The factors and contents of the VBI were derived through key informant interviews. Key stakeholders examined the content validity of the script. Two methods were used to assess the effectiveness of the VBI: pre- and post-test and a focus group discussion (FGD). For the pre- and post-test, 50 motorcyclists were purposively selected from the visitors of NHSL. A helmet-use awareness questionnaire was administered shortly before the video link was shared, and the same questionnaire was readministered after two weeks to the same population. The difference in the mean awareness score was tested for significance using a paired t-test. A thematic analysis was conducted to examine the data obtained from the FGD.

Results: The difference between the mean awareness scores in the pre-intervention assessment (2.5) and the post-intervention (2.8) was statistically significant ($p<0.05$). Thematic analysis revealed that the VBI was effective in improving awareness, engaging viewers through its emotional impact.

Conclusions: The study concludes that the VBI effectively improves the awareness of helmet use among motorcyclists.

Key words: Motorcyclists, Road traffic accidents, Video-based intervention, Helmet, NHSL

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OP 4

Smart Susastho Kormi: a digital healthcare model transforming primary healthcare delivery in Bangladesh

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Background: Bangladesh's healthcare system faces significant challenges, including a shortage of health facilities, with only 1.1 physicians per 10,000 people. The rise of non-communicable diseases (NCD) further complicates care delivery, resulting in delayed diagnosis and increased health inequities.

Aims: To evaluate the effectiveness of *Smart Susastho Kormi* (SSK) model in enhancing healthcare accessibility, early detection of NCDs and improving treatment coordination through digital tools across various urban and rural areas of Bangladesh

Methods: The SSK model is a digital healthcare system operated by trained pharmacy owners serving as primary healthcare facilitators. Pharmacies were enrolled based on their willingness to participate and basic requirements. They received a Smart Health Kit, a mobile application, digital health accounts and an AI-powered referral system. Each participant used the digital platform to enrol and create a health account to record socio-demographic and clinical data. They collected vitals like body mass index, blood pressure and glucose, which the AI system analysed to enable referrals, telemedicine, and follow-up care.

Results: The study covered 479 pharmacies and reached 8,515 individuals. Hypertension (11.31%) and diabetes (8.47%) emerged as the most common NCDs, especially in the 50–59 age group. The solution enabled early risk detection, improved access to primary care and reduced healthcare costs.

Conclusions: The SSK model demonstrates a viable path towards equitable, technology-enabled healthcare in Bangladesh. While rural adoption remains a challenge, this approach offers a solution for advancing universal health coverage.

Key words: Digital health, Non-communicable diseases, Pharmacy-based model, AI in healthcare

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OP 5

Development and validation of an artificial intelligence integrated screening tool for early identification of women at high risk of endometriosis in Bangladesh

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Background: Endometriosis affects 10% of women globally. Lack of awareness, stigma and limited healthcare access delay diagnosis with serious consequences.

Aims: To develop and validate a questionnaire-based artificial intelligence (AI) supported screening tool, integrated into a mobile application, for early identification and timely referral of women at risk of endometriosis

Methods: A questionnaire was developed through literature review, in-depth interviews and a survey of 100 diagnosed cases. A rule-based AI algorithm was then designed to classify risk. A validation workshop with gynaecologists, epidemiologists and AI experts refined the tool, which was then integrated into a culturally contextualized mobile application. A cross-sectional validation study was conducted among 335 women (aged 13–55) attending gynaecology outpatients at two hospitals. The app's risk assessment was compared with gynaecologists' clinical evaluations (gold standard).

Results: Among 335 participants, 75.52% reported dysmenorrhea (40.64% severe, 30.59% moderate and 28.77% mild). Additionally, 56.21%, 50.69%, 16.21% and 10.69% experienced depression, IBS-like-symptoms, dysuria and dyschezia, respectively. Among 206 married women, 22.82% reported dyspareunia and 20.87% infertility. The tool demonstrated 82.55% sensitivity, 83.87% specificity, 80.39% precision, 83.33% accuracy and 81.52% F1 score.

Conclusions: This tool may reduce diagnostic delay and promote early intervention to democratize access to endometriosis care in Bangladesh. Further research is recommended.

Key words: Endometriosis, Artificial intelligence, Risk assessment, Screening tool

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OP 6

Digital Health Corner (DHC): Improving employee wellness and addressing non-communicable diseases through workplace digital health innovation

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Background: Non-communicable diseases (NCDs) impact employee health and productivity in Bangladesh, where workplaces lack preventive care. The DHC model was developed to address these gaps using digital health interventions.

Aims: To assess the feasibility of a digital workplace health model in promoting employee wellness and managing NCDs by risk identification and monitoring

Methods: A two-year pilot study was conducted among 8,374 participants (7,553 employees, 821 family members) across 20 corporate and factory workplaces in Bangladesh. Participants received health screenings via a Smart Health Kit, digital risk assessments and telemedicine consultations. Socio-demographic, clinical metrics and disease prevalence were collected digitally. Follow-up user feedback was collected on health changes, medication adherence and satisfaction.

Results: Non-communicable disease rates were higher in corporate staff (2.52%) than factory workers (0.15%), with diabetes (1.63%) and hypertension (1.37%) being most prevalent. Among them, 16.11% had high normal blood pressure, 13.88% were overweight and 2.27% were obese. Diabetes was commoner in male employees (7.62%) than females (4.49%). Age was strongly linked to NCDs (diabetes: OR=6.72, hypertension: OR=5.55). Follow-up showed 73.62% health improvement, 64.95% medication adherence and 82.03% satisfaction.

Conclusions: The DHC pilot demonstrated that workplace-based digital healthcare can manage NCD risks, improve health outcomes and present substantial potential for global adoption.

Key words: Non-communicable diseases, Digital health, Workplace wellness, Preventive care, Employee health

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OP 7

Are mothers still telling stories to their children?

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Background: Storytelling is a time-tested activity where adults pass knowledge to their young, fostering social, cognitive and emotional development. Research on use of storytelling in the modern Sri Lankan context is minimal.

Aims: To describe knowledge, attitudes and practices, and factors associated with using stories to stimulate child development among mothers attending the child welfare clinic at Ragama Medical Officer of Health Area, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 268 consecutively sampled mothers from registrants at child welfare clinics at Ragama. An interviewer-administered questionnaire assessed storytelling practices and related knowledge and attitudes. The data were analysed using descriptive statistics and chi-squared test was applied to analyse the factors associated.

Results: The majority (n=225; 84%) reported storytelling with 33.5% (n=90) reporting regular storytelling. The commonest (n=161; 71.2%) occasion for storytelling was at bedtime and the second commonest (n=104; 46%) was during meals. The commonest themes were animals (n=182; 68%) and only 38.7% (n=103) reported telling fairy tales. The majority had good knowledge and favourable attitudes towards story telling. Household income (χ^2=18.75; df=8; p=0.016) and mother's educational level (χ^2=22.28; df=6; p=0.001) were significantly associated with regular story telling.

Conclusions: Storytelling is commonly practised but not consistently in the surveyed community. Household income and educational status influence regular storytelling. Thus, promoting story telling in communities of low socio-economic status is important to ensure better developmental outcomes among children.

Key words: Storytelling, Mothers, Knowledge, Attitudes, Practices, Ragama

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OP 8

Reduction in birth rates in Sri Lanka

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Background: Over the years, the number of live births has been declining in Sri Lanka. This reduction could have been due to an increase in modern family planning method usage as well as due to recent changes in socio-economic factors following the COVID-19 pandemic and the economic crisis. Such a reduction in birth rates would have a long-term impact on population demography in Sri Lanka.

Aims: To assess the significance of birth rate reduction from year 2017 to 2023 in Sri Lanka

Methods: A secondary data analysis using crude birth rates and number of live births reported by the Register General's Department (RGD) from 2017 to 2023 was done. Yearly crude birth rates published by the RGD were compared with the previous year's birthrate using rate ratios. Statistical significance was assessed with 95% confidence interval and $p<0.05$.

Results: The national birth rates have dropped from 16 per 1000 population in 2017 to 11.2 per 1000 population in 2023. Number of live births has dropped from 326,461 in 2017 to 247,900 in 2023. In each year, a lower birth rate has been reported compared to the previous year. The lowest rate ratio (0.903) was observed in the years 2022 to 2023. The highest rate ratio (0.975) was observed in the years 2017 to 2018. Rate ratio values over 2017 to 2023 years were statistically significant ($p<0.01$).

Conclusions: In Sri Lanka, the birth rate reduction from 2017 to 2023 was statistically significant when analysed using the rate ratio. The causes and demographic factors for the above significant reduction need to be further studied.

Key words: Declining birth rates, Sri Lanka

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OP 9

Translation and validation of the Mother-Infant Bonding Scale (MIBS) among Sri Lankan postpartum mothers

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Background: Mother-infant bonding (MIB) refers to the unidirectional positive emotions a mother feels toward her newborn and is an important motivator for parenting behaviours. Currently, no screening tool is available to assess MIB failures in the local context.

Aims: To translate the Mother-Infant Bonding Scale (MIBS) and validate it for use among postpartum mothers in Sri Lanka

Methods: The Sinhala version of MIBS was developed using standard translation-back translation method. Improvements were made following focus group discussions with the target groups, expert evaluation and pre-testing. Construct validity was appraised in a descriptive cross-sectional study conducted among 100 postpartum mothers within the first six months after delivery attending the maternal & child health clinics in Matara Health Unit Area. Convergent validity of the MIBS Sinhala version was established by demonstrating correlations with the scores of Childbirth Experience Questionnaire (CEQ) and Maternal Competency Assessment Tool – Early Infancy (MCAT-EI). Reliability of the MIBS was assessed using Cronbach's alpha and test-retest reliability.

Results: The scores of MIBS-Sinhala showed significant moderate negative correlations with scores of CEQ (Spearman's rho=-0.31; p=0.002) and MCAT-EI (Spearman's rho=-0.312; p=0.002) as anticipated. Internal consistency of MIBS-Sinhala was acceptable (Cronbach's alpha=0.745) with significant inter-item correlations. Test-retest reliability of MIBS was high (Spearman rho=0.93; p<0.001).

Conclusions: The results showed satisfactory validity and reliability of the MIBS-Sinhala, indicating its usefulness in detecting mother-infant bonding failures in the local context. A confirmatory factor analysis is recommended to confirm the factorial validity of MIBS further.

Key words: Validation, Mother-Infant Bonding Scale (MIBS), Sri Lanka

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OP 10

Factorial validity of the Sinhala version of Eating Disorders Examination Questionnaire 6.0 in Sri Lankan adolescents

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Background: Disordered eating behaviours are common among adolescents. There are no studies conducted on disordered eating behaviours in Sri Lanka as there is no validated tool to identify such behaviours among adolescents. Eating Disorders Examination Questionnaire 6.0 (EDEQ 6.0) is a widely used questionnaire, which has been translated to Sinhala language and culturally adapted to the Sri Lankan context using cognitive validation and expert evaluations.

Aims: To assess the factorial validity of the Sinhala version of EDEQ 6.0 among adolescent school children aged 16-19 years in Matara Education Division of Matara District, Sri Lanka

Methods: A cross-sectional study was conducted in a random sample of 168 adolescents attending schools in the Matara District. The Sinhala version of EDEQ 6.0 (EDEQ 6.0–Sinhala) was subjected to confirmatory factor analysis (CFA) using SPSS Amos software. The original factor structure and a series of different proposed models were tested for fit indices. Original factor structure of the questionnaire included (a) restraint, (b) eating concern, (c) shape concern and (d) weight concern, as the subscales.

Results: Mean age of the sample was 16.92 (SD=0.99) years. Majority were girls (52.7%), Sinhala in ethnicity (99.4%) and from G.C.E. Ordinary Level and lower grades (52.7%). The CFA did not support the original factor structure (Goodness of Fit Index (GFI)=0.791; Comparative Fit Index (CFI)=0.803; Tucker-Lewis Index (TLI)= 0.759; Root Mean Square Error of Approximation (RMSEA)=0.102). A four-factor model with factors corresponding to the themes of (a) dietary restraint, (b) preoccupation and restraint, (c) weight and shape concern (d) eating shame gave a satisfactory model fit (GFI=0.821; CFI=0.837; TLI=0.799; RMSEA=0.093). The new themes of this model were based on modification indices and exploratory analysis.

Conclusions: Factor structure of the EDEQ 6.0-Sinhala should be modified from the original factor structure in order to be used among Sri Lankan adolescents. Further studies are recommended to examine the factorial validity of the modified factor structure among a larger sample of adolescents.

Key words: Eating Disorders Examination Questionnaire (EDEQ), Factorial validity, Sri Lanka

Acknowledgement: This study was funded by the Department Development Fund, Department of Community Medicine, Faculty of Medicine, University of Ruhuna.

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OP 11

Barrier for dissemination of knowledge on sexual intercourse during pregnancy among antenatal women in Puttalam District, Sri Lanka

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Background: Comprehensive understanding of sexual education is essential for maintaining a healthy sexual relationship with one's partner during pregnancy. However, various barriers hinder the effective communication and dissemination of accurate information.

Aims: To determine the barriers for dissemination of knowledge on sexual intercourse during pregnancy among antenatal women in Puttalam District, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 576 antenatal women, selected using a multistage cluster sampling technique. Data were collected through a questionnaire.

Results: The most utilized sources of knowledge were healthcare professionals (63.0%), followed by internet (58.9%), friends or relatives (22.0%), and books or magazines (22.0%). However, only 37.8% of the participants received personalized information from healthcare-workers. Moreover, 63.9% used internet-based knowledge sources such as YouTube (37.2%), medical websites (21.4%), Facebook (4.5%), TikTok (0.3%) and non-medical websites (0.2%). The most preferred healthcare providers for information related to sexual education were midwives (57.3%), followed by gynaecologists (28.5%), family doctors (5.4%), medical officer of health (3.5%) and nurses (1.6%). The most common reasons for not discussing the topic were perceived lack of necessity (37.3%), fear of causing distress (11.5%), belief in having adequate knowledge (6.4%), lack of opportunity (6.1%) and preference for friends' advice (0.9%). Participants who engaged in personalized discussions had a higher prevalence of sexual intercourse ($p<0.01$), while the use of healthcare workers ($p=0.63$) or internet sources ($p=0.104$) did not show a significant difference.

Conclusions: Healthcare workers are the primary source of sexual health information in Sri Lanka. However, it also revealed a significant gap in personalized discussions and information delivery.

Key words: Sexual intercourse during pregnancy, Information, Sexual well-being

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OP 12

Mode of delivery preference and its associated factors among pregnant women in Bangladesh

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Background: Caesarean sections (CS) conducted without clinical necessity can lead to adverse outcomes for both mothers and infants. The 2022 Bangladesh Demographic and Health Survey (BDHS) indicates that 45% of live births occur via CS. Although physicians primarily determine the mode of delivery, there is limited understanding on whether the rising trend in CS can be attributed to maternal preferences or to the healthcare service providers' failure to adhere to obstetrical guidelines.

Aims: To identify the preferred mode of delivery and associated factors among primigravid women in Bangladesh

Methods: This cross-sectional study was conducted among primigravid women receiving antenatal care (ANC) from three private and three state hospitals in Dhaka, Chittagong and Manikganj. The study excluded expectant women recommended for elective CS. The sample was chosen using convenience sampling. A semi-structured, pre-tested questionnaire was used for data collection. Bivariate and multivariable logistic regression analysis was applied to examine the association between dependent and explanatory variables.

Results: Among 389 participants, the majority were Muslim (82.26%), aged 20-24 years (32.9%) and married after the age of 18 years (57%). Only 44.73% of them had completed primary education while 38.56% of their husbands had completed secondary education. Nearly 75% of the pregnancies were planned, 77.89% reported singleton pregnancies, and 64.78% had no comorbid diseases. Almost 78% preferred state hospitals for delivery, while around 90% reported access to mass media like television, newspapers, mobile phones or the internet. Their preferred delivery mode was normal vaginal delivery (NVD) in 85.09% and CS in 14.91%. Women who previously used contraceptives (adjusted odds ratio (AOR)=0.3; 95% CI: 0.1, 0.88) were significantly less likely to prefer CS. The strongest factors influencing the preference for CS were their perception of risk to the mother (AOR=22.0; 95% CI: 3.84, 125.77) or baby (AOR=20.68; 95% CI: 4.38, 97.53). Women who perceived vaginal delivery as less threatening, either for themselves or their infants, were significantly more inclined to prefer NVD over CS.

Conclusions: The preference for CS delivery aligns with the World Health Organization's recommended range of 10-15% for CS. Clinically not indicated CS conducted in private health facilities have significantly contributed to CS. Regular audits of clinics are recommended, accompanied by strict instructions and appropriate guidelines for assessing the justification of CS deliveries. Furthermore, public awareness of the harmful consequences associated with unnecessary CS deliveries should be improved.

Key words: Caesarean section, Normal vaginal delivery, Delivery mode preference

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OP 13

Comparing child health development record developmental screening with a play-based autism screening tool: highlighting the need for interaction-based assessment

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Background: The child health development record (CHDR) is used to screen for early developmental issues. Mothers complete the checklist at home, which is later confirmed by public health midwives during field visits. In contrast, Social Attention and Communication Surveillance-Revised (SACS-R) Tool is a play-based autism screening tool.

Aims: To compare the caregiver-reported CHDR checklist with a directly observed play-based screening tool (SACS-R)

Methods: Data collection occurred at 36-month maternal and child health clinics across 18 selected medical officer of health areas, involving a total sample of randomly selected 207 children. Public health midwives of the area administered the tools and recorded data for both CHDR and SACS-R using the software, REDCap. Subsequently, the data were analysed using SPSS for individual item assessments.

Results: Four checklist items in the CHDR were identified as comparable to those in the SACS-R. Of the total pretend play concerns identified by SACS-R, 85% were not captured by the CHDR. Around 93% of the cases related to eye contact were not flagged in the CHDR. Regarding difficulties in understanding instructions, 88% were not detected by CHDR. Similarly, among children with speech-related issues, CHDR missed 71% of the cases.

Conclusions: The CHDR is a caregiver-reported screening tool that lacks play-based observational data. While some checklist items may have nuances in the questions between the two tools, large discrepancies in the data may highlight the importance of incorporating direct interactions, such as play, into early-childhood assessments.

Key words: Autism spectrum disorder, Neurodevelopmental disorder, Early childhood screening tools

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OP 14

Family-based sexual health intervention for adolescents in low-middle income countries: a systematic review and meta-analysis

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Background: Family-based interventions have received considerable attention as a successful way of promoting adolescent sexual health outcomes. However, the knowledge regarding the effectiveness of family-based interventions in promoting adolescent sexual and reproductive health in lower- and middle-income countries (LMIC) has not been empirically evaluated.

Aims: To assess the effectiveness of family-based sexual and reproductive health interventions (FBSHI) in promoting the sexual health of adolescents living in LMIC

Methods: Systematic searches were conducted for studies published between January 2000 and October 2023 using five electronic databases. Studies were included if they included adolescents aged 10-19 years and their family members (parents, siblings, or primary caregivers) in a key intervention component, evaluated the effectiveness of the interventions using an experimental or quasi-experimental design, assessed sexual and reproductive health (SRH) outcomes reported by adolescents and were carried out in LMIC. Standardized mean difference (SMD) and confidence intervals (CIs) were computed from studies and meta-analyses using a random effect model were conducted.

Results: The review included nine studies, with 2,404 adolescent participants and their families. A significant impact of FBSHI in improving adolescent SRH knowledge (SMD=1.5; 95% CI: 0.31, 2.81) was identified. However, FBSHI were not significantly effective at changing adolescents' sexual and reproductive health attitudes (SMD=0.83; 95% CI: -0.445, 2.105; p=0.202) or improving the sexual and reproductive health communication of adolescents with their families (SMD=0.001; 95% CI: -0.34, 0.34; p=0.997).

Conclusions: Future research should prioritize under-represented areas like Asia and explore innovative intervention formats like longer follow-up duration, diverse session structures to better understand the ways to enhance the effectiveness of these programs in LMIC.

Key words: Adolescents, Sexual and reproductive health, Family-based interventions, Lower and middle-income countries

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OP 15

Maternal responsiveness and associated factors among mothers of children aged 6-12 month attending immunization clinics in Mahara Medical Officer of Health (MOH) Area, Sri Lanka

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Background: The Nurturing Care Framework of the World Health Organization highlights the importance of responsive caregiving in early childhood development. Maternal responsiveness, a key component, refers to a mother's ability to recognize and appropriately respond to her infant's cues. In Sri Lanka, limited data exists on this subject.

Aims: To assess the level of maternal responsiveness and its associated factors among mothers of children aged 6–12 months attending the immunization clinics in Mahara MOH Area, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 331 mothers identified from birth and immunization registers, re-distributed according to their clinic, and randomly selected proportionate to the eligible clinic attendees. Maternal responsiveness was measured using the validated Maternal Infant Responsiveness Instrument, a self-administered questionnaire translated into Sinhala and Tamil languages and validated to local context by an expert panel. Maternal responsiveness was expressed as a mean score. Associated factors were analysed using t-test, and Pearson and Spearman correlation coefficients.

Results: Maternal responsiveness scores ranged from 53 to 104, with a mean of 92.28 (SD=6.4), median of 94 and mode of 95. Significant factors associated with low maternal responsiveness were monthly income <LKR 57,000 ($p=0.003$), inability to meet basic needs ($p<0.001$), maternal substance use ($p=0.041$) and presence of depression ($p=0.003$), while high maternal responsiveness was associated with effective participation in antenatal sessions ($p=0.002$).

Conclusions: Mothers demonstrated relatively high responsiveness, with some key factors identified for low maternal responsiveness. Improving maternal responsiveness may require addressing socioeconomic challenges, maternal mental health, substance use and knowledge enhancement.

Key words: Maternal responsiveness, Nurturing care, Associated factors

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OP 16

Knowledge, attitudes and associated factors of induced abortion among undergraduates of a selected university in Sri Lanka

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Background: Induced abortion, the intentional termination of pregnancy, has significant public health implications in Sri Lanka, where it is legally restricted except to save the mother's life. Understanding young adults' knowledge, attitudes, and associated factors regarding induced abortion is crucial for taking policy decisions and planning interventions.

Aims: To describe the knowledge, attitudes and associated factors of induced abortion among undergraduates of the University of Sri Jayewardenepura, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 427 undergraduates aged 19–30 years selected from all faculties using a multistage sampling method. Data were collected via a self-administered questionnaire developed in Sinhala and English languages and analysed using SPSS.

Results: The response rate was 95.8%, with 63.3% of the respondents being female. The majority (74.1%) demonstrated good knowledge of induced abortion. Over 80% were aware of abortion risks, while 61.6% recognized that abortion is legal only when the mother's life is at risk. Higher knowledge was significantly associated with medical related education (p=0.001), being in a relationship (p=0.017) and family income over LKR 100,000 (p=0.006). A pro-abortion attitude was held by 59.7%, with considerable support for legalizing abortion in cases of sexual assault (68.6%) and serious birth defects (69.7%). Attitudes differed significantly between participants who were single and in relationships (p=0.001). Most (87.7%) supported contraceptive education in the G.C.E. Ordinary Level syllabus.

Conclusions: Expanding sexual and reproductive health education in the school curriculum would be beneficial in further improvement of knowledge. Qualitative studies are recommended for in-depth analysis of attitudes.

Key words: Induced abortion, Unsafe abortion, Knowledge on contraception, Undergraduates

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OP 17

Exclusive breastfeeding practices and associated factors among mothers attending the well-baby clinics in Hanwella Medical officer of Health (MOH) Area, Sri Lanka

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Background: Exclusive breastfeeding (EBF) during the first six months of life is a globally recommended practice, with proven health benefits for both infants and mothers. Despite national policy support and high awareness levels, EBF rates in Sri Lanka tend to decline with infant age. Understanding region-specific factors affecting EBF is essential for targeted interventions.

Aims: To assess EBF practices and identify factors associated with non-exclusive breastfeeding among mothers of infants who had completed six months age at the Hanwella MOH Area, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 198 mothers, selected through multistage sampling from four randomly selected child welfare clinics. Data were collected using a pre-tested, interviewer-administered questionnaire and analysed using SPSS version 21. Associations between EBF and maternal, child and contextual factors were assessed through bivariate and multivariate analyses.

Results: Exclusive breast feeding was initiated by 77.3% of the mothers during first month, but only 37.4% continued EBF up to six months. The most common reasons for early cessation included perceived inadequacy of breast milk (37.6%), infant illness (25.3%), return to employment (12.9%) and breastfeeding difficulties (5.3%). Maternal employment, lower education level and delayed initiation of breastfeeding were significantly associated with reduced EBF duration ($p<0.05$).

Conclusions: Exclusive breastfeeding practices were below the national targets. Strengthening maternal education, enhancing workplace breastfeeding support and addressing common breastfeeding challenges are critical to improving EBF outcomes.

Keywords: Exclusive breastfeeding, Maternal health, Infant feeding, Sri Lanka, Public health

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OP 18

Sociodemographic determinants and outcomes of deliveries taking place outside healthcare institutions in Sri Lanka

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Background: In Sri Lanka, 99.9% of deliveries are taking place in hospitals, and all pregnant women are expected to deliver in a hospital with obstetric care facilities. However, annually, around 250 non-institutional deliveries are taking place, and understanding the socio-demographic profiles influencing these deliveries is crucial for addressing barriers to institutional deliveries.

Aims: To identify sociodemographic factors and delivery outcomes of non-institutional deliveries in Sri Lanka

Methods: A descriptive study using secondary data reported from the electronic Reproductive Health Management Information System (eRHMIS2) of 193 non-institutional deliveries that took place in 2024.

Results: Analysis of the detailed records found the average age of mothers as 29 years (range: 15-45). Ethnicity-wise, 40% Sinhalese, 34% Tamils and 26% Muslims. It was noted that 44% mothers had secondary education only; 10.6% were unmarried; 82% had no occupation; and their average monthly family income was LKR 42,650 (range: 5,000-200,000). Average distance to nearest hospital was 9.4 km (range: 0.2-80). Transportation issues were highlighted by 25% of mothers, followed by 15% feeling institutional delivery is not needed. Treatment was required in 28% of babies, and one maternal death, seven neonatal deaths, and 14 stillbirths were reported.

Conclusions: Ethnicity, marital status, occupation and transportation may influence the likelihood of noninstitutional deliveries. Further research and addressing the concerns will reduce non-institutional deliveries and associated risks.

Key words: Non-institutional delivery, Home delivery, Maternal and child health

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OP 19

Assessment of family functioning and its associated factors among Grade 10 students in government schools in Kegalle District, Sri Lanka

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Background: Family functioning encompasses the social, structural, and organisational dynamics within family, which play a crucial role in adolescents' physical, mental and social well-being.

Aims: To adapt and validate a tool for assessing family functioning and to determine the prevalence and associated factors for unsatisfactory family functioning among Grade 10 students in government schools in Kegalle District, Sri Lanka

Methods: The McMaster Family Assessment Device (FAD) was translated into Sinhala, culturally adapted and validated among Grade 10 students in Ratnapura District using exploratory and confirmatory factor analysis (n=300 each), with reliability assessed via Cronbach's alpha and test-retest. Thereafter, a descriptive cross-sectional study was conducted involving 1,240 students in Kegalle District. It utilised multi-stage cluster sampling with probability proportionate to size. Data were analysed using SPSS AMOS 21 and SPSS 21.

Results: Response rate was 98.1% (n=1,215). Validated tool demonstrated acceptable model fit (CMIN/DF=2.285; SRMR=0.044; RMSEA=0.061; IFI=0.914; CFI=0.913) with satisfactory reliability. Prevalence of unsatisfactory family functioning was 38.4% (n=467; 95% CI: 35.7, 41.2), with highest in communication (41.3%) and role allocation (40.1%) subscales. Male students reported relatively higher dysfunction across all subscales. Significant associations with unsatisfactory family functioning were found for living with both parents (adjusted odds ratio (AOR)=0.73; 95% CI: 0.31, 1.7), rural residence (AOR=0.19; 95% CI: 0.11, 0.31), ill-health of mother (AOR=1.66; 95% CI: 1.23, 2.26) and father (AOR=1.67; 95% CI: 1.23, 2.29) and maternal employment (AOR=2.19; 95% CI: 1.14, 4.2) at $p<0.05$.

Conclusions: Targeted family-based interventions at the community level to improve family functioning among adolescents, with a focus on dimensions exhibiting the highest levels of dysfunction, are required.

Key words: Family, Family functioning, Adolescents, Family functioning assessment

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OP 20

Parental awareness and response to childhood epilepsy: public health implications from a Sri Lankan study

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Background: Epilepsy affects over 50 million people globally, including 13 million children. Despite its prevalence, stigma and misinformation contribute to delays in diagnosis and poor treatment adherence, significantly affecting child health and development.

Aims: To assess parental knowledge, attitudes and practices related to epilepsy among parents of children aged 6–12 years attending the neurology clinic at Lady Ridgeway Hospital, Colombo, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 422 randomly selected parents from December 2024 to January 2025. Data were collected using a validated, pre-tested, interviewer-administered questionnaire. The Delphi method ensured content validity. Chi-squared test was used to examine associations between socio-demographic factors and knowledge levels.

Results: Mean ages of mothers and fathers were 36 and 38 years, respectively. Health professionals were the primary information source (86.8%). Overall, 67.8% of parents had excellent knowledge, 95.5% demonstrated appropriate emergency responses, and 98.8% adhered to medication. However, 52.3% incorrectly offered food or drink post-seizure. While 70.4% showed positive attitudes, 91.5% believed constant supervision was necessary, and 62.6% restricted activities, reflecting overprotective behaviour. Higher maternal education (OR=4; p=0.002) and household income (OR=6.4; p=0.002) were significantly associated with better knowledge.

Conclusion: Although parental knowledge was generally high, persistent misconceptions and protective practices highlight the need for targeted educational interventions. Strengthening public awareness can improve emergency care, reduce stigma, and enhance the well-being of children with epilepsy.

Key words: Childhood epilepsy, Knowledge, Attitudes, Practices

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OP 21

Knowledge and practice of contraceptive methods amongst reproductive-age mothers attending a tertiary care hospital in Northern Sri Lanka

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Background: Contraceptives empower individuals to plan and space pregnancies effectively. Despite public health efforts in Sri Lanka to improve contraceptive awareness and access, unplanned pregnancies and induced abortions remain high. Understanding contraceptive knowledge and practice among reproductive-age mothers is essential for refining public health strategies.

Aims: To assess the level of knowledge and current practice of contraceptive methods, and associated sociodemographic factors among reproductive-age mothers attending a tertiary care hospital in Northern Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 359 mothers aged 16–49 years who are staying with their children in four paediatric wards in Teaching Hospital, Jaffna from November 2023 to February 2024. Data were collected using an interviewer-administered questionnaire through systematic sampling method. Data were analysed using chi-squared test, independent sample t test and correlation coefficient tests.

Results: The mean participant age was 33.7 years (SD=5.9). Awareness of contraceptives was high (98.3%), with condoms and oral pills being the most recognized. Knowledge was poor overall (mean score 5.82/16), and only 56.1% practised contraception. Sterilization and implants were most used. Fear of side effects was the main barrier. There was a significant association between the knowledge with education ($p<0.01$), monthly income ($p<0.01$) and occupation ($p<0.05$). Practice had a significant association with the number of children ($p<0.01$), monthly income ($p<0.05$) and education of the partner ($p<0.05$). Only 21 participants have used emergency contraceptive methods.

Conclusions: Despite high awareness, contraceptive knowledge and usage remain suboptimal, influenced by socio-demographic factors. Enhancing education, addressing misconceptions and promoting emergency contraceptive methods are essential.

Key words: Knowledge, Practices, Contraceptive methods, contraceptive usage

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OP 22

Undernutrition and its associated factors among primary school children of government schools in Horana Education Zone in Sri Lanka

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Background: Undernutrition is a major concern globally and in Sri Lanka, affecting children's growth and development. Key contributing factors include poverty, food insecurity, low maternal education and the recent economic crisis.

Aims: To determine the prevalence of undernutrition (underweight, stunting and thinness) and its associated factors among the primary school children of government schools in Horana Education Zone, Sri Lanka

Methods: A descriptive cross-sectional study was conducted using multistage stratified probability proportionate to size cluster sampling. A self-administered questionnaire was given to parents/guardians after informed written consent. Height and weight of the children were measured using standardized techniques recommended by the World Health Organization (WHO). Nutritional status was assessed using the WHO growth standards: thinness (BMI-for-age <-2SD), stunting (height-for-age <-2SD), and underweight (weight-for-age <-2SD). Associations were tested using chi-squared test at $p<0.05$ significance level.

Results: The study included 478 students, with the majority being females (51%) and aged 5-10 years. The response rate was 100%. The mean age of students was 7.65 years (SD=1.59). The prevalence of thinness, stunting and underweight were 35.2%, 28.7% and 24.1%, respectively. Thinness was significantly associated with large family size ($p=0.006$), higher income ($p=0.037$); stunting with older age ($p<0.001$), lower income ($p=0.041$) and having chronic illnesses ($p<0.001$); and underweight associated with older age ($p=0.01$) and having a disability ($p=0.012$). No significant associations were found between undernutrition and diet or physical activity.

Conclusions: A considerable burden of undernutrition exists among primary school children in Horana Educational Zone. Targeted nutrition education for parents and equitable strengthening of school mid-day meal programme are recommended.

Key words: Thinness, Stunting, Underweight, School children, Undernutrition

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OP 23

Evaluation of knowledge, attitude and practices among the public health midwives towards the RED Book in Seeduwa Medical Officer of Health (MOH) staff, Sri Lanka

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Background: Sri Lanka's maternal mortality ratio (MMR) remained static at around 25 per 100,000 live births in 2023, a relatively successful position for a lower-middle-income country. A significant number of these deaths are preventable by strengthening the preventive healthcare sector. The register of eligible women in danger (RED book) was introduced by UNICEF to identify and track pregnant women at risk in the Sri Lankan health system. The RED book helps ensure these women receive timely and appropriate interventions, including early admission, specialist management, counselling and referral to family planning clinics.

Aims: To assess the knowledge, attitudes and practices of public health midwives (PHMs) towards the RED Book and evaluate the quality and completeness of its implementation in Gampaha District, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among all 25 PHMs in Seeduwa Medical Officer of Health (MOH) Area. A self-administered questionnaire evaluated their knowledge, attitudes and practices regarding the RED book. Additionally, a retrospective quantitative data extraction from the Red Book was used as a checklist.

Results: This audit revealed that the overall knowledge of the PHMs was satisfactory at 80%. Only 48% of PHMs knew how often and where to send RED Book information, and no compiled reports were found to have been sent to the RDHS between January and December 2023. While PHMs' general practices regarding the RED Book were satisfactory, a significant 75% kept the RED Book in wrong location, while 84% incorrectly identified and entered unnecessary women's details. Although attitudes towards the RED Book were generally good (92%), attitudes specifically towards reducing maternal deaths were significantly low (16%). When considering practices, Interventions were made for only 70.8% of the 185 total entries, with 29.2% receiving no intervention. Immediate initial visits (within 24 hours) were provided in only 1.6% of cases, and follow-up visits within two weeks in 46.6%. Full completeness of RED Book information was only 9.7%, and at least 50% completeness was 43.8%.

Conclusions: There was no documentation of discussions about 'danger women' in MOH office meetings, although the RED Book's availability and accessibility at the MOH Office were appreciated. Given the Sri Lanka's high suicide prevalence and dominant female population, preventing suicidal death is crucial. Efficient implementation of the RED Book is vital to address these challenges, but many health sector employees don't fully understand its importance.

Key words: Public health midwives, RED book, Knowledge, Attitudes, Practices, MMR

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OP 24

Anaemia in pregnancy: prevalence, associated factors and influence on birthweight in the Batticaloa Medical Officer of Health (MOH) Area, Sri Lanka

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Background: Anaemia during pregnancy is a significant public health concern, which is associated with adverse maternal and foetal outcomes.

Aims: To assess the prevalence, associated factors and the influence of anaemia in pregnancy on birthweight among mothers in the Batticaloa MOH, Sri Lanka

Methods: A community-based analytical cross-sectional study was conducted among mothers in the MOH area who had their pregnancy outcome in 2023. Data were collected from their antenatal records (H 512 Part B). The chi-squared test and one-way ANOVA were used in bivariate analysis, and the binary logistic regression model was used to identify the factors associated with anaemia in pregnancy.

Results: A total of 864 mothers were recruited. Their mean age was 29.0 years (SD=5.3). The majority were Tamils (85.6%). The mean haemoglobin level during the first and second assessments were 11.87 g/dl (SD=1.27) and 10.95 g/dl (SD=1.11), respectively. The prevalences of mild, moderate and severe anaemia were 14.9%, 19.7% and 0.1%, respectively. The logistic regression demonstrated that anaemia was associated with underweight (adjusted OR (AOR)=2.4; 95% CI: 1.4, 4.2) and maternal age over 35 years (AOR=2.0; 95% CI: 1.2, 3.4). The mean birthweights of term babies born to mothers who did not have gestational diabetes were 2995.6 g, 2960.4 g and 2892.6 g among the non-anaemic, mild anaemic and moderate to severe anaemic mothers ($F_{(2,522)}$=2.724; p=0.067).

Conclusions: Anaemia is prevalent in the study population (34.7%), highlighting the need for nutritional interventions.

Key words: Anaemia, Pregnancy, Prevalence, Foetal outcomes, Maternal outcomes

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OP 25

Job satisfaction and its associated factors among nursing officers in the government hospitals of Kalmunai Regional Director of Health Services (RDHS) Area, Sri Lanka

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Background: Nursing officers play a major role in patient care, often bearing a high workload and stress. Job satisfaction impacts their performance and healthcare quality. Studying the factors affecting job satisfaction, particularly following the COVID-19 pandemic and Sri Lanka's economic challenges, is crucial.

Aims: To describe job satisfaction and its association with selected sociodemographic and service-related factors among nursing officers in the government hospitals of Kalmunai RDHS Area, Sri Lanka

Methods: A descriptive cross-sectional study was conducted in September 2023 among 273 nursing officers from the government hospitals, selected using a multistage stratified random sampling technique, proportionate to the number of eligible nursing officers in each hospital. A tool which was locally developed and validated for assessing job satisfaction among public health midwives was suitably adopted for the study. The cut-off was decided based on expert input. A pre-tested, self-administered questionnaire was used for data collection. Chi-squared test explored associations between job satisfaction and selected factors.

Results: The response rate was 91.9%. The study found that 68.5% of nursing officers were satisfied with their job. Female gender and being single were significantly associated with higher job satisfaction ($p<0.05$), while age, ethnicity and education were not significantly associated. Key service-related factors like fair salary, good support, sufficient leave, balanced working hours and career development opportunities were strongly linked to higher job satisfaction ($p<0.05$).

Conclusions: Targeted improvements in salary structure and leave policy may raise job satisfaction.

Key words: Job satisfaction, Nursing officers, Nurses, Kalmunai RDHS, Service-related factors

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OP 26

Knowledge, attitude and practices on carbon footprint in a suburban school setting in Sri Lanka

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Background: Climate change is an undeniable global crisis, with carbon footprint serving as a key measure of sustainability. Despite its importance, local research on student awareness remains limited.

Aims: To evaluate knowledge, attitudes and practices (KAP) related to carbon footprint among school students in a suburban setting in Gampaha District, Sri Lanka

Methods: A cross-sectional study was conducted among 187 randomly selected Grades 10 and 11 students from two schools in Kelaniya. A self-administered questionnaire was used to gather data. Students with cognitive, language or medical barriers affecting participation were excluded. Students were categorized as having 'satisfactory' or 'unsatisfactory' KAP based on whether their scores were above or below the sample mean. Chi-squared tests were performed to assess relationships.

Results: A majority (59.9%) demonstrated satisfactory knowledge, while the attitudes and practices were slightly lower (51.3% each). Females (p=0.004) and students from nuclear families (p=0.011) showed significantly higher knowledge and more positive attitudes (p<0.001). However, practices did not differ significantly. Socioeconomic class and grades were not significantly associated with KAP.

Conclusions: The gap between knowledge and practice highlights the need for focused climate education. Integrating carbon literacy into the school curriculum and encouraging hands-on eco-friendly projects can bridge this gap and prepare youth for a sustainable future.

Key words: Carbon footprint, School students, Sri Lanka

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OP 27

Assessing the prevalence of occupational stress, burnout and coping mechanisms among employees at Colombo Sea Port, Sri Lanka

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Background: Occupational stress and burnout are widespread among employees in high-pressure job environments such as the Colombo Sea Port.

Aims: To determine the prevalence of occupational stress and burnout among employees at the Colombo Sea Port and to identify their coping mechanisms employed to mitigate stress

Methods: A cross-sectional study was performed involving 427 employees at the Colombo Sea Port. Data were gathered through self-administered questionnaires concentrating on occupational stress, burnout and coping mechanisms.

Results: The study revealed that 66.7% of the employees experienced mild occupational stress levels, while 9.6% reported severe stress. Occupational burnout was prevalent among workers, with 30% reporting a significant level of exhaustion. Problem-focused coping mechanisms were employed by 84.5% of workers, whereas 70.3% utilized emotion-focused solutions. Statistically substantial disparities in job stress and burnout were identified across education, income, job category and service experience, while coping techniques were significantly correlated with levels of job stress and burnout.

Conclusions: The findings indicate a significant prevalence of workplace stress and burnout among seaport workers, with coping mechanisms being essential for stress management. Interventions aimed at mitigating job stress, preventing burnout and fostering good coping strategies are crucial for enhancing workers' mental health.

Key words: Occupational stress, Burnout, Coping mechanisms, Colombo Sea Port, Sri Lanka

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OP 28

The quality of life of quarry workers in four selected quarry sites in Colombo and Kalutara Districts, Sri Lanka

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Background: The quarry industry is one of the most hazardous work environments. Granite is vital for construction, especially buildings and roads. In Sri Lanka, quarry workers face unsafe conditions and poor safety practices, affecting their quality of life. There is a lack of research on their well-being and safety adherence.

Aims: To assess quality of life, safety practices and health issues among quarry workers in Sri Lanka

Methods: A cross-sectional descriptive study was conducted among 60 adult quarry workers at four selected sites in Colombo and Kalutara Districts. Data were collected via an interviewer-administered questionnaire, including the WHO-BREF Quality of Life Scale, lifestyle- and safety-related questions, along with some open-ended items. Observations assessed site conditions and safety compliance. Quantitative data were analysed using SPSS; open-ended responses were analysed through content analysis.

Results: All participants were male; 70% were married, and 60% had completed G.C.E. Ordinary Level. Most had 9–12 years of experience. While 70% reported 6–8 hours of sleep, 21.7% had 4–6 hours due to work-related pain and substance use. Despite self-reported good quality of life, job stress was high. Personal protective equipment (PPE) use was poor, with only 1.67% always using it. About 60% experienced work-related injuries. No workers had formal training on occupational health or PPE use.

Conclusions: Unsafe conditions, poor safety compliance, and lack of training highlight the urgent need for improved occupational health measures, safety education and worker support.

Key words: Occupational health, Quarry workers, Safety practices, PPE, Quality of life

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OP 29

A systematic review of environmental contaminants detected through autopsy studies: implications for public health surveillance

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Background: Autopsy-based studies offer a unique, underutilized avenue for assessing environmental exposures and informing public health strategies. This systematic review provides an overview of environmental contaminants identified through human autopsies, highlighting their value in biomonitoring and surveillance.

Aims: To synthesise the global evidence of environmental contaminants detected through autopsy studies

Methods: A literature search was conducted across PubMed, Scopus and Web of Science for studies published between 2000 and 2024 that reported contaminant levels in autopsy tissues, including liver, kidney, brain, lung and adipose tissue. Eligible studies were screened and evaluated using PRISMA guidelines, with data extracted on study population, contaminants measured, analytical methods and geographic location.

Results: Findings reveal widespread detection of heavy metals, persistent organic pollutants, microplastics and nano plastics. These polymeric particles, recently identified in lung, blood and placental tissues, raise growing concerns over chronic exposure and systemic toxicity. Several studies also identified regional patterns linked to industrial activity, agricultural runoff and urban pollution.

Conclusions: Autopsy-based data proves to be a valuable source for detecting cumulative exposures. This review highlights the critical role of death investigation systems in environmental health monitoring and recommends the integration of standardized autopsy protocols and data-sharing frameworks into national health infrastructure.

Key words: Autopsy, Environmental contaminants, Contaminant levels

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OP 30

Work related musculoskeletal pain among female tea plantation workers in Nuwara-Eliya, Sri Lanka: a mixed methods study

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Background*:* Work related musculoskeletal pain (WRMSP) affects manual workers. Female tea plantation workers engage in heavy manual labour for long hours.

Aims: To determine the prevalence and patterns of WRMSP among female tea plantation workers in Nuwara-Eliya, Sri Lanka

Methods: This mixed-methods study was conducted among 367 adult female tea plantation workers selected from three tea estates. A structured interviewer-administered questionnaire delivered via the Kobo-Collect Toolkit and two focus group discussions were conducted. Descriptive statistics and regression tests were performed using SPSS, and themes and subthemes generated by coding. Dahlgren and Whitehead model provided the framework to triangulate the data.

Results: Shoulder pain was most prevalent (62.6%) and was associated with carrying weight on the shoulder (OR=4.28; 95% CI: 0.29, 0.49), while plucking >25 kg of tea leaves was linked to hand/arm pain in 23% (OR=2.61; 95% CI: 0.44, 0.71), and lifting objects was associated with neck pain in 25.3% (OR=2.53; 95% CI: 0.08, 0.63). The population appeared to be living and working through pain caused by hard labour, household responsibilities, limited rest and inequities in pain management.

Conclusions: Musculoskeletal pain is an inescapable reality and an escalating burden for most female tea plantation workers, worsened by their demanding work and daily routines. They are a vulnerable population influenced by inequities in work and health. A rights-based approach is recommended to tackle their musculoskeletal pain and improve their overall well-being.

Key words: Work-related musculoskeletal pain/disorders, Rheumatological MSDs, Neurological work-related risk factors, Ergonomic factors, Female tea plantation workers

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OP 31

National Authority on Tobacco and Alcohol (NATA) Act: perceived gaps in implementation in Ratnapura District, Sri Lanka

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Background: Sri Lanka, committed to the WHO Framework Convention on Tobacco Control (FCTC), aims to reduce tobacco use. The NATA Act enforces tobacco control through enforcement, cessation support and taxation policies. Despite these, industry interference and rising smokeless tobacco use hinder progress.

Aims: To assess the perceived level of implementation of legislation regarding tobacco control in Ratnapura District, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among spouses/partners of pregnant women attending government antenatal clinics (ANC) in the Ratnapura District. Multistage cluster sampling was used to select 44 ANCs and 20 pregnant women from each. Their spouses/partners (n=880) were approached through public health midwives. Data were collected using an interviewer-administered questionnaire. Descriptive statistics were used to assess prevalence and associations.

Results: The response rate was 98.5% (n=867). Only 32.8% had ever heard of the NATA Act. Pictorial warnings on smoking had been seen by 66.0%, while 31.9% had seen warnings on smokeless tobacco (SLT) products. Tobacco sales to minors were observed by 59.1% for SLT and 55.5% for smoking products. Exposure to tobacco-related advertising was reported on Facebook by 56.7%, on television by 55.4% and in print media by 34.0%. Nearly half had seen SLT products with added colour (45.1%) and added flavour (47.6%). *Sara vita*, a local unregulated commercial product containing tobacco, was identified as violating multiple NATA Act provisions, including packaging regulations. Only 3.7% reported having seen tobacco sold via vending machines.

Conclusions: Awareness of the NATA Act was low. Tobacco sales to minors were widespread, and advertising remains high across media. Unregulated products like *sara vita* violate regulations. Stricter enforcement and public awareness are needed to strengthen tobacco control efforts in Sri Lanka.

Key words: Tobacco, NATA Act enforcement

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OP 32

5A's and 5R's brief intervention for tobacco cessation among spouses/partners of pregnant women

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Background: Despite measures such as pictorial warnings, advertising bans and restrictions on sales to minors under the National Authority on Tobacco and Alcohol (NATA) Act in Sri Lanka, access to comprehensive tobacco cessation services remains limited. Integrating tobacco cessation services into primary healthcare is essential for achieving national tobacco control goals.

Aims: To assess the feasibility and effectiveness of delivering the World Health Organization (WHO) 5A's and 5R's brief intervention for tobacco cessation among spouses/partners of pregnant women in Ratnapura District, Sri Lanka

Methods: A quasi-experimental study was conducted among 360 tobacco-using spouses/partners of pregnant women attending the government field antenatal clinics (ANCs), with 180 each in the intervention and control groups. The ANCs were allocated to intervention and control groups based on geographical location to prevent contamination. The intervention consisted of a structured, paper-based checklist developed in accordance with the WHO's 5A's and 5R's brief intervention methodology. Public health midwives delivered the intervention over six monthly sessions. Routine services were continued to the control group after facing comprehensive pre-test regarding tobacco use and knowledge regarding tobacco. Effectiveness was assessed through pre- and post-tests conducted by trained data collectors.

Results: The response rates were 87.2% (n=158) and 72.0% (n=130) in the intervention and control groups, respectively. In the intervention group, all five exclusive smokers continued smoking. Among dual users (n=41), 36.6% maintained dual use, 24.4% switched to smokeless tobacco (SLT) only and 39.0% achieved complete cessation. Among exclusive SLT users (n=112), 42.0% continued use, whereas 58.0% quit. Overall, 51.3% participants in the intervention group ceased all tobacco use. In the control group, all 15 exclusive smokers continued smoking. Among dual users (n=59), 40.7% continued both forms, 25.4% switched to SLT, 10.2% shifted to exclusive smoking and 23.7% quit. Among exclusive SLT users (n=56), 55.4% continued and 44.6% quit. Overall, 30.0% in the control group achieved cessation. The intervention significantly improved cessation rates (51.3% vs. 30.0%; RR=1.71), indicating a 71% higher likelihood of quitting. The attributable risk reduction was 21.3%, with a number needed to treat (NNT) of 4.7, reinforcing the effectiveness of integrating cessation support into primary healthcare.

Conclusions: The intervention significantly improved tobacco cessation, highlighting its effectiveness. Integrating cessation support into primary healthcare can substantially enhance quit rates, particularly among smokeless tobacco users.

Key words: Tobacco cessation, Primary healthcare intervention, Behavioral counselling

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OP 33

Knowledge, attitudes, preparedness to intervene on cannabis related issues and factors associated among schoolteachers in a coastal community in Sri Lanka

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Background: Cannabis is the most used illicit drug globally and in Sri Lanka and is a growing public health concern. Majority of adolescents are in schools and teachers are key stakeholders in addressing this issue.

Aims: To assess the knowledge, attitudes and preparedness to intervene in cannabis-related issues, and to examine the associated factors among schoolteachers in Chilaw Education Zone, Sri Lanka

Methods: A cross-sectional study was conducted among teachers in the Chilaw Education Zone. The calculated sample size was 426. Teachers were recruited by a multistage stratified sampling method. Data were collected using a pre-tested, self-administered questionnaire. Chi-squared test was used to identify associations.

Results: The response rate was 73.2% (n=312). Most schoolteachers (55.5%) demonstrated a good knowledge level, which was associated with being female, under the age of 35 and of Muslim ethnicity or Islamic religious background. Mass media (83.3%) and social media (75.6%) were the most frequently mentioned sources of information. Of the participants, 58.3% exhibited positively directed attitudes, which were associated with being female, teaching in Type 1C school category and having good knowledge on cannabis. A good level of preparedness was demonstrated by only 43.9% of the teachers and was associated with Muslim ethnicity, Hindu or Islamic religion, being in Type 2 school category, holding special responsibilities within the school and participation in training programmes. Good knowledge on cannabis and positively directed attitudes were also associated with a higher level of preparedness.

Conclusions: The teachers in Chilaw Education Zone had a good level of knowledge and positively directed attitudes towards cannabis prevention. However, preparedness to intervene in cannabis related issues was poor and was determined by the level of knowledge and the direction of attitudes. The current conditions can be improved by targeted training programmes for schoolteachers.

Key words: Interventions, Cannabis, Schoolteachers, Preparedness to intervene

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OP 34

Depression, anxiety and stress among Grade 12 students in the Sinhala medium government schools of Hanguranketha Education Zone, Sri Lanka

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Background: Global and local evidence indicates rising mental health issues among school-going adolescents.

Aims: To determine the prevalence of depression, anxiety and stress, and their associated factors among Grade 12 students in the Sinhala medium schools of Hanguranketha Education Zone

Methods: A cross-sectional analytical study was conducted among Grade 12 students in six Sinhala medium Type 1AB schools. A self-administered questionnaire, including the validated Sinhala version of the 21 item-Depression, Anxiety and Stress Scale (DASS-21) was used. High scores were identified using pre-defined DASS-21 cut-offs with 95% CI. Binary logistic regression followed bivariate analysis to identify significant associated factors.

Results: The sample included 791 students (response rate of 61.8%), with 65.0% being females. In the sample, 24.9% (95% CI: 21.9, 27.9), 30.4% (95% CI: 27.3, 33.7) and 22.8% (95% CI: 19.8, 25.9) had high scores for depression, anxiety and stress, respectively. Depression was significantly associated with female gender (OR=2.2; 95% CI: 1.5, 3.1; p<0.001), low self-confidence (OR=2.0; 95% CI: 1.3, 3.1; p=0.002), loneliness (OR=2.3; 95% CI: 1.5, 3.5; p<0.001), poor family support (OR=2.7; 95% CI: 1.7, 4.3; p<0.001),and less frequent religious activities (OR=1.5; 95% CI: 1.0, 2.2; p=0.028). Anxiety was significantly associated with female gender (OR=1.9; 95% CI: 1.4, 2.8; p=0.004), low self-confidence (OR=1.7; 95% CI: 1.1, 2.5; p=0.017), loneliness (OR=2.3; 95% CI: 1.6, 3.5; p<0.001), poor perceived mental health (OR=1.7; 95% CI: 1.1, 2.6; p=0.013) and physical health conditions (OR=2.3; 95% CI: 1.4, 3.9; p=0.031). Stress was significantly associated with female gender (OR=2.6; 95% CI: 1.8, 3.9; p<0.001), low self-confidence (OR=1.9; 95% CI: 1.2-3.0; p=0.004), loneliness (OR=1.9; 95% CI: 1.2, 3.0; p=0.004), poor perceived mental health (OR=2.2; 95% CI: 1.3, 3.6; p=0.002) and poor teachers' support (OR=1.7; 95% CI: 1.1, 2.6; p=0.013).

Conclusions: Approximately 25% of Grade 12 students showed high mental health scores, highlighting the need for school-based programmes and supportive learning environments to enhance adolescent mental well-being in Sri Lanka.

Key words: Depression, Anxiety, Stress, Grade 12 students, Hanguranketha Education Zone, Sri Lanka

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OP 35

Estimating the health and economic impacts of alcohol control policy interventions in Sri Lanka: a multistate life table modelling approach

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Background: Alcohol consumption contributes significantly to the disease burden in Sri Lanka, despite relatively low per capita consumption. While comprehensive alcohol control policies exist, their impact has not been systematically evaluated.

Aims: To estimate the health and economic benefits of alcohol policy changes using a multistate life table model and effect sizes derived from the International Alcohol Control Policy Index (IACPI)

Methods: A proportional multistate life table Markov model was used to simulate the impact of alcohol policy scenarios: a 20% tax increase, reduction in legal blood alcohol concentration to 0.03%, restricting alcohol outlet hours, a 10% tax decrease, and replacing a complete advertising ban with a partial ban. Changes in population alcohol consumption were estimated using a regression model based on IACPI scores. Health outcomes were measured in health-adjusted life years (HALYs) and economic impacts in healthcare cost savings. Cost-effectiveness was assessed using the incremental cost-effectiveness ratio (ICER).

Results: The most effective scenario was combined drink-driving policies, resulting in 102,000 HALYs gained (72,300–152,000) and cost savings of LKR 274,000 million (-375,000 to -161,000). Restricting outlet hours (9,740 HALYs) and increasing tax by 20% (8,970 HALYs) also showed substantial benefits. Reducing tax by 10% (-4,830 HALYs) and relaxing advertising bans (-59,200 HALYs) led to significant health losses.

Conclusions: Strengthening alcohol policies around drink-driving, taxation, and outlet regulation can yield major health and economic gains in Sri Lanka. Weakening policies is likely to reverse these benefits. This shows the value of evidence-based, comprehensive alcohol policies to improve population health and reduce the economic burden.

Key words: Health and economic impacts, Alcohol control policy interventions, Sri Lanka, Multistate life table modelling approach

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OP 36

Unveiling the impact: trends in tobacco use and second-hand smoke exposure among adolescent females in a medical officer of health (MOH) area in Sri Lanka

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Background: Females are targeted by the tobacco industry.

Aims: To describe the patterns and trends in adolescent female tobacco use and second-hand smoking in Ratmalana MoH Area, Sri Lanka

Methods: A cross-sectional study was conducted among 14–16-year-old school going females in Ratmalana MOH Area. The sample was 281 recruited through stratified cluster sampling. A self-administered questionnaire gathered information on practices, attitudes and knowledge on smoking. Analysis was done using SPSS version 20.

Results: Among the females, 1.7% have ever-smoked with no current-smokers. The reason given for smoking was peer influence. They smoked at social gatherings (50%) and with friends (50%). Access to tobacco products was seen as easy by 28%, while 58% were aware of warning labels. Around 34.6% were exposed to smoking at home and 53% have not participated in any smoking control activities. Although 67% were able to identify smoking related short and long-term health-effects, only 16.7% knew smoking as a risk factor for certain events; 83.3% knew the benefits of quitting; and 14.3% knew the risks of exposure to second-hand smoking. Overall, knowledge score was 49.5% (95% CI; 43.6%, 55.4%) with 82% of students refusing to smoke. Nearly 87% rejected the notion that smoking makes one more attractive, and 88.3% felt that smoking does not improve their self-esteem. 70.1% and 73.6% strongly disagreed that smoking enhances maturity and self-confidence, respectively.

Conclusions: Despite a low prevalence of smoking, findings highlight the need for targeted prevention efforts especially for second hand smoking among females. Addressing knowledge gaps and promoting non-smoking attitudes, will help reduce exposure to tobacco among adolescents.

Key words: Impact, Trends, Tobacco use, Second-hand smoke, Adolescent females, MoH Area, Sri Lanka

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OP 37

Trends in urbanization and its impact on mental health in Nepal

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Background: Nepal is facing rapid urbanization, as 66% of Nepal's population now resides in urban areas. Even though people get access to services and economic opportunities in urban areas, they also face overcrowding, inadequate housing, environmental degradation and social fragmentation, leading to increased mental health challenges such as anxiety, depression and suicide. Mental health care in Nepal is still underfunded and understaffed.

Aims: To analyse trends and drivers of urbanization, and the socio-economic, environmental and lifestyle impacts due to urbanization and explore the existing policies pertaining to urban mental health in Nepal

Methods: This scoping review followed PRISMA guidelines and Arksey and O'Malley's five-stage framework. A comprehensive search was conducted in PubMed, Scopus, Web of Science and Google Scholar. Inclusion criteria encompassed peer-reviewed studies, government and NGO reports on Nepal, and those in English language. Studies were excluded if they lacked relevance to both urbanization and mental health. Data were charted and thematically analysed to extract key findings.

Results: Due to rural-urban migration, administrative classification and post-conflict resettlement, the urban population of Nepal has increased from 22.31% in 2011 to 27.07% in 2021. However, government estimates state that over 66% of the population are currently residing in areas classified as urban, indicating rapid redefinition and expansion of urban boundaries. This rise in urban population has caused overcrowded settlements, poor-quality housing, environmental pollution, unemployment and limited access to recreational spaces, which are associated with elevated risks of depression, anxiety and social isolation, particularly during the COVID-19 pandemic. Policy gaps exist due to intersectoral coordination, inadequate funding and insufficient mental health infrastructure.

Conclusions: Urbanization in Nepal is indicating towards the pressing public health challenge that requires a prompt, context-specific research into its mental health consequences. Mixed-method studies are recommended to capture the socio-environmental stressors associated with urban life. Policy implementation must be strengthened through effective governance, consistent monitoring and community participation. Promoting mental health awareness and integrating services into urban planning are critical for mitigating risks and improving population well-being.

Key words: Mental health, Nepal, Policies, Stressors, Urbanization

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OP 38

Evaluating the effectiveness of mindfulness-based stress reduction in managing adjustment disorder among employees of middle-level management in the apparel sector, Sri Lanka

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Background: The apparel industry in Sri Lanka is a high-stress work environment, leading to an increased prevalence of adjustment disorder (AD) among employees. Despite this, research on effective interventions remains scarce. Mindfulness-based stress reduction (MBSR) has been shown to reduce stress and improve psychological well-being, but its application for AD within the apparel sector is underexplored.

Aims: To assess the effectiveness of MBSR in managing AD among middle-level management employees in the Sri Lankan apparel sector

Methods: A quasi-experimental study with purposive sampling was employed. Participants from four apparel factories were screened for AD by trained counsellors using the Adjustment Disorder New Module-20 (ADNM-20) and DSM-5 criteria. Screened participants were non-randomly assigned to the MBSR intervention group and to the control group that received no intervention. Following the eight-week MBSR intervention, post-tests were analysed for the intervention (n=48) and control (n=46) groups. Mann-Whitney U and Wilcoxon signed-rank tests were used to evaluate between- and within-group differences.

Results: At baseline, both groups recorded high ADNM-20 scores. The MBSR group showed a significantly greater reduction in AD symptoms than the control group ($p<0.001$) post-intervention. Within-group analysis showed a median ADNM-20 score decrease from 62 to 51 in the MBSR group ($Z=-5.92$; $p<0.001$), while the control group showed a median increase from 62 to 65 ($Z=-3.61$; $p<.001$), indicating worsening of AD symptoms.

Conclusions: MBSR is an effective intervention in managing AD symptoms in high-stress work environments. Integrating mindfulness practices into workplace mental health programs may enhance employee resilience and well-being.

Key words: Adjustment disorder, ADNM-20, Apparel industry, MBSR, Workplace mental health

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OP 39

A retrospective analysis of the patterns and sociodemographic factors in suicidal deaths in Peradeniya and Kandy, Sri Lanka

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Background: Suicidal deaths remain a significant public health challenge in Sri Lanka, which prompts studies on local trends to implement preventive actions.

Aims: To analyse the patterns and socio-demographic factors associated with suicidal deaths presented for autopsies to the medico-legal units at the Department of Forensic Medicine, University of Peradeniya and the National Hospital, Kandy, Sri Lanka

Methods: Data were retrospectively extracted from the medico-legal postmortem records of suicide cases reported to the University of Peradeniya and National Hospital, Kandy, between 2020 and 2025. Data were collected using a Google Form structured to capture relevant demographic and case-related details.

Results: A total of 172 suicide cases were analysed, with 83.1% being male. Their mean age was 46.67 years, ranging from 13 to 82 years. Victims aged 60 years or above accounted for 33.1% of the cases, followed by 20.9% in the age group of 18-29 years. The majority was of Sinhalese ethnicity (79.1%), while 32.0% had passed G.C.E. Ordinary Level. Hanging was the most frequently reported method of suicide (72.7%), followed by poisoning (12.8%), railway injury (7.0%) and drowning (4.7%). Only two cases (1.2%) were categorized as complex suicides. Among poisoning cases (n=20), agrochemical ingestion was the most common (45.0%). The stated reason for suicide was unknown in 45.3%, and among the known reasons, family issues (16.9%), health issues (12.8%) and psychiatric illness (8.1%) were predominant. There was no significant association of suicide method with sex (p=0.341) or ethnicity (p=0.432).

Conclusions: The predominance of male victims, the high proportion of elderly individuals and the preference for hanging highlight the need for targeted prevention strategies.

Key words: Autopsy, Public health, Retrospective studies, Sri Lanka, Suicide

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OP 40

Psychological distress in patients with chronic leg ulcers visiting surgical clinics of a tertiary care hospital in Sri Lanka: prevalence, associated factors and coping strategies

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Background: Chronic leg ulcers are debilitating conditions that pose continuous challenges to public health sectors in low-resource regions. Although neglecting mental health leads to poorer wound healing and decreased treatment adherence, the psychological impact of these ulcers often go unaddressed in clinical practice in Sri Lanka.

Aims: To determine the prevalence of significant psychological distress, its associated factors and related coping strategies among patients with chronic leg ulcers attending surgical clinics in a tertiary care hospital in Sri Lanka

Methods: A cross-sectional study was conducted among 164 patients with leg ulcers lasting over six weeks, recruited from specialized wound-care clinics of the National Hospital of Sri Lanka. The locally validated General Health Questionnaire-12 was used to screen for significant psychological distress. Information on coping strategies, and clinical and sociodemographic factors were collected via an interviewer-administered questionnaire.

Results: Participants had a mean age of 61.2 years (SD=10.5); 53.0% were male. The mean ulcer diameter was 5.1 cm (SD=3.8), while the mean duration was 28.5 weeks (SD=20.0). Significant psychological distress was identified in 73.8% of patients (95% CI: 66.4, 80.3). Low household income (p=0.029), ulcer size ≥ 5.1 cm (p=0.009) and reduction in mobility (p=0.01) were significantly associated with distress, while other variables including coping mechanisms were not.

Conclusions: The burden of psychological distress and lack of appropriate coping strategies highlight a critical gap in existing health systems and the need for incorporating psychological assessment and intervention, guided by identified distress-associated factors, in the multidisciplinary approach to wound-care.

Key words: Chronic leg ulcer, Psychological distress, Prevalence, Associated factors, Coping strategies

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OP 41

Mental well-being, associated factors and coping strategies among female doctors in government hospitals in Colombo District, Sri Lanka

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Background: Mental well-being is an essential aspect of overall health, particularly for individuals in high stress professions like medical professionals. Female doctors often face unique challenges which could lead to poor mental well-being. Therefore, identifying the level of mental well-being and coping strategies adopted by female doctors is crucial to plan interventions.

Aims: To describe the mental well-being, coping strategies and associated factors among female doctors working in selected government hospitals in Colombo District, Sri Lanka

Methods: A descriptive cross-sectional study with an analytical component was carried out among 427 female doctors from selected hospitals in Colombo District. Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) and a self-administered questionnaire were used as study instruments. Data analysis was done using SPSS software. Chi-squared test was used to measure association, with p-value of <0.05 taken as the significance level.

Results: Response rate was 71.6% (n=306). The median age was 31 years (IQR: 7), majority (64.1%) had good mental well-being. The age (p=0.000), marital status (p=0.000), parenthood status (p=0.003), monthly income (p=0.005), whether living in their own place or not (p=0.002), working hours (p<0.001) and number of night shifts per week (p=0.001), coping strategies such as seeking support from friends and family (p=0.04), engaging in hobbies (p=0.008) and self-care (p=0.03) showed significant associations with mental well-being. The most common coping strategy was seeking support from friends and family.

Conclusions: Over one third of the female doctors had poor mental well-being, with both modifiable and non-modifiable factors being associated with their mental well-being. Limiting night shifts, engaging in hobbies, self-care and socializing would help improve the status.

Key words: Mental wellbeing, Psychological wellbeing, Female doctors, WEMWBS, Coping Strategies

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OP 42

Challenges in implementing mental health care services for individuals with autism spectrum disorder in developing countries: a systematic review

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Background: Autism spectrum disorder (ASD) is a neurodevelopmental condition characterized by challenges in social interaction, communication, and repetitive behaviours. While the global recognition of ASD has increased, access to adequate mental health care services remains limited, particularly in developing countries.

Aims: To identify and analyse the key challenges in implementing mental health care services for individuals with ASD in these settings

Methods: The review followed PRISMA guidelines and included 295 peer-reviewed studies published between 2000 and 2024, sourced from PubMed, Scopus and PsycINFO. Only studies focussing on barriers to mental health care for individuals with ASD in developing countries were included, while non-English articles, those from developed countries and non-primary research formats such as case reports and editorials were excluded.

Results: A total of 295 studies met the inclusion criteria. Key challenges identified include a shortage of trained professionals, limited financial and infrastructural resources, cultural stigma, lack of awareness among caregivers and communities, and inadequate national policies or implementation frameworks. These barriers contribute to delayed diagnosis, limited access to care and poor outcomes for individuals with ASD.

Conclusions: The review highlights systemic and socio-cultural barriers that hinder the effective delivery of mental health care services for individuals with ASD in developing countries. Addressing these challenges requires a multi-level approach involving policy reform, workforce development, public education and international collaboration. Future research should focus on scalable, context-specific interventions that improve access and quality of care.

Keywords: Autism spectrum disorder, Mental health care, Developing countries, Implementation challenges, Systematic review

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OP 43

Level of physical activity and associated factors of insufficient physical activity among office-based health sector employees in Badulla District, Sri Lanka

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Background: Globally, the burden of non-communicable diseases (NCDs) is increasing, and physical inactivity is a leading modifiable risk factor that requires prompt action to reduce this burden.

Aims: To determine the level of physical activity and associated factors of insufficient physical activity among selected office-based employees of health sector in the district of Badulla, Sri Lanka

Methods: A descriptive cross-sectional study was carried out among 349 selected health sector office-based employees. A self-administered questionnaire, along with the interviewer-administered Global Physical Activity Questionnaire (GPAQ), translated and validated to the Sri Lankan context, were used to collect data. Physical activity level was categorized as 'sufficient' or 'insufficient' by calculating the total metabolic equivalent tasks (MET) per week and the cut-off value considered was 600 MET minutes per week. The statistical significance of observed associations among variables were tested using odds ratio, 95% confidence intervals and independent sample t-test, as appropriate.

Results: Among the participants, insufficient physical activity was observed among 11.1% (n=37). The median MET minutes spent on physical activity per week was 2280 (IQR: 1440-3380). Work-related physical activity accounted for a significant proportion of the total physical activity, with a median of 30.0 MET hours per week (IQR: 16-40). Transport-related and recreation-related physical activities contributed less to the total physical activity. An average of 454.1 minutes per week was reported for sedentary behaviour among the participants. Factors such as being a female, having higher education, low monthly family income, occupational category, presence of NCDs and prolonged sitting time, showed no significant association with insufficient physical activity.

Conclusions: Globally recognized factors associated with insufficient physical activity were not elicited in the present study. This may be attributed to the specific study population who may have greater access to information and awareness about physical activity and its benefits. Nonetheless, it remains important to strengthen physical activity promotion within these work settings, with increased emphasis on exercise, recreational activities and active transport.

Key words: Physical activity, Office workers, Physical activity determinants, Sedentary behaviour

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OP 44

Development and validation of an instrument to assess the level of health literacy on behavioural risk factors of non-communicable diseases among health care assistants in government hospitals in Sri Lanka

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Background: Health literacy (HL) is a key determinant of health and serves as a theory of behaviour change. In Sri Lanka, non-communicable diseases (NCD) are a major public health challenge, driven by behavioural risks. Healthcare assistants (HCA) play a vital role in mitigating NCDs, making it important to assess HL on the behavioural risk factors of NCDs among them.

Aims: To develop and validate an instrument to assess the level of HL on behavioural risk factors of NCDs among HCAs in Sri Lanka

Methods: The HL-NCD tool was developed and validated in three phases: item development; scale development; and scale evaluation. Principle component analysis (PCA) was performed using a cross-sectional validation study among 280 HCAs in selected hospitals of Gampaha District and confirmatory factor analysis (CFA) using another cross-sectional study (n=280). The convergent validity and reliability were assessed.

Results: The HL-NCD tool had 56 items, all with communalities above 0.5. Four factors, namely 'finding standard information', 'understanding self-practice' and 'comparing and applying' explained 92.49% of the variance. All items loaded to one of them, with factor loadings above 0.4. Model fit was confirmed (χ^2=1499.7; p=0.34; RMSEA=0.007; CFI=0.99; SRMR=0.03; PGFI=0.78; PNFI=0.95; NNFI=0.99). Convergent validity showed significant correlations: dietary practice (ρ=0.51), physical activity (ρ=0.43), tobacco use (ρ=0.58) and alcohol intake (ρ=0.47). The tool demonstrated high internal consistency (α=0.901) and test-retest reliability (ICC=0.836).

Conclusions: The HL-NCD is a valid and reliable tool to screen HL on behavioural risk factors of NCDs among HCAs. It is recommended to adapt this tool for other populations and settings.

Key words: Health literacy, Behavioural risk factors of non-communicable diseases, Healthcare assistants, Tool development, Validation

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OP 45

Effectiveness of a behaviour change intervention on health literacy for behavioural risk factors of non-communicable diseases among health care assistants of government hospitals in Colombo District, Sri Lanka: a cluster-randomized controlled trial

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Background: Health literacy (HL) is a determinant of health and a driver of behaviour change. In Sri Lanka, non-communicable diseases (NCD) pose a major public health challenge, driven by behavioural risk factors. Healthcare assistants (HCAs) play a crucial role in NCD prevention, but inadequate HL limits their effectiveness. Enhancing HL strengthens their contribution.

Aims: To assess the effectiveness of a behaviour change intervention package (BCIP) to improve HL on behavioural risk factors of NCDs among HCAs in Colombo District, Sri Lanka

Methods: A cluster randomized controlled trial was conducted among 240 HCAs selected from 20 hospitals in the Colombo District, 10 hospitals each for the control and intervention arms. The 16 sessions of the BCIP were conducted over eight weeks. The HL-NCD tool and STEPS questionnaire were administered two weeks before and after the intervention. Score and level of HL, and secondary outcomes were analysed.

Results: The intervention group showed significant increments in HL scores in unadjusted ($p<0.001$), cluster level ($p=0.005$) and generalized estimating equations (GEE) ($\beta=7.801$; 95% CI: 7.378, 8.224; $p<0.001$) analyses and HL level in unadjusted ($p=0.003$), cluster level ($p=0.011$) and GEE analyses (OR=3.8; 95% CI: 1.585, -9.113; $p=0.003$). Age below 35 years was a significant positive predictor of HL score and educated only up to G.C.E. Ordinary Level was a significant negative predictor of HL level. The GEE analysis revealed significant improvements in behaviour related to diet, physical activity, avoiding smokeless tobacco and non-exposure to second hand smoking, except avoiding smoking tobacco and alcohol intake.

Conclusions: The BCIP was effective in improving HL and reducing behavioural risk factors of NCDs among HCAs, highlighting its potential for broader implementation.

Key words: Health literacy, Behavioural risk factors of non-communicable diseases, Behaviour change intervention, Cluster-randomized controlled trial

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OP 46

Health seeking behaviour and associated factors among blind graduates and undergraduates registered at a specific disabled persons organisation (DPO) in Sri Lanka

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Background: Visual impairment is a rising public health problem, contributing to comorbidities that require long term medication. Understanding health-seeking behaviour among the blind community is, therefore, imperative in providing a service that is unpatronizing, unprejudiced and blind-people friendly.

Aims: To describe the health-seeking behaviour and factors associated with such behaviour among blind graduates and undergraduates registered at a specific DPO in Sri Lanka

Methods: A descriptive cross-sectional study was carried out among 123 blind graduates and undergraduates aged 20-70, from a DPO, using simple random sampling. Data were gathered through a pre-tested, structured, interviewer-administered questionnaire. Behaviours were assessed under three sections: visiting a healthcare facility, medication compliance and accessing health related information. SPSS version 20.0 was utilized for data analysis.

Results: Response rate was 82%. Of those with chronic diseases, 56.7% sought follow-up care in the government sector. For acute diseases, majority (61.8%) preferred private sector health services. Majority (63.4%) had good compliance, while 17.8% had poor compliance. Compliance was significantly associated with age ($p=0.009$), income ($p<0.001$), employment status ($p<0.001$) and level of blindness ($p=0.013$). Most of them (71.5%) used YouTube to acquire information.

Conclusions: Most preferred the private health sector for acute conditions and relied heavily on online sources for health-related information. Hence, these facilities should be further optimised to provide better quality care for the blind community.

Key words: Health seeking behaviour, Visually impaired, Factors associated

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OP 47

Screening tools for obstructive sleep apnoea in Asian adults: a systematic review and meta-analysis

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Background: Obstructive sleep apnoea (OSA) is the most prevalent sleep related breathing disorder among adults but often remains undiagnosed. If untreated, it can lead to cardiovascular disease, metabolic disorders and reduced quality of life. Early identification through valid and reliable screening tools is essential.

Aims: To identify OSA screening tools used among adults in Asian countries that are most suitable for potential validation and implementation in Sri Lanka

Methods: A systematic review and meta-analysis were conducted to assess the diagnostic accuracy, feasibility and usability of OSA screening tools used in Asia. A comprehensive search was performed across PubMed, EMBASE, CINAHL, Scopus and Web of Science. Studies conducted among adults (≥18 years) in Asian countries that compared tools with more than three questions against polysomnography were included. Studies were excluded if they were not in English, had fewer than 30 participants or lacked sufficient data to calculate diagnostic accuracy. A random-effects meta-analysis was performed, where methodologically similar studies were available. Study quality was assessed using the QUADAS-2 tool based on Cochrane guidelines.

Results: Thirty-five studies evaluating 29 screening tool versions were included; 12 tools were considered suitable for Asian populations. Meta-analyses were conducted for six different versions of the OSA tools. The STOP-BANG demonstrated a pooled sensitivity of 87.9% (95% CI: 84.0, 91.9%) and a specificity of 41.9% (95% CI: 34.4, 49.3%), with high feasibility and usability. The Berlin questionnaire exhibited a sensitivity of 76.0% (95% CI: 69.5, 82.5%) and a specificity of 56.3% (95% CI: 40.0, 72.5%), while its modified version showed a sensitivity of 85.1% (95% CI: 73.5, 96.7%) and a specificity of 63.5% (95% CI: 27.7, 99.2%). Both versions demonstrated moderate feasibility and usability. The NoSAS tool had a sensitivity of 76.3% (95% CI: 70.9, 81.6%) and a specificity of 57.2% (95% CI: 49.1, 65.2%), with high feasibility and usability. Moderate to high heterogeneity was observed (I^2>50%). The Epworth Sleepiness Scale (ESS), modified with weighted scoring, demonstrated high sensitivity (92.3%) and specificity (90.2%) in a single study, indicating a balanced diagnostic profile, along with high feasibility and moderate usability. A meta-analysis was not required for this tool, as only one study was available.

Conclusions: STOP-BANG, NoSAS, modified versions of the Berlin Questionnaire and ESS demonstrated consistent diagnostic accuracy for screening OSA in clinical settings across Asian populations. These tools appear most suitable and can be recommended for potential validation and implementation in Sri Lanka.

Key words: Obstructive sleep apnoea, Screening tools, Systematic review, Asia

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OP 48

Awareness, preferences and factors associated with the selection towards refraction correction methods for myopia among undergraduates with myopia in a state university in Sri Lanka

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Background: Myopia is a common refractive error worldwide, including in Sri Lanka, with well-known risk factors. Spectacles are the most widely used correction method, while surgery is least common but offers a permanent solution. Contact lenses and surgery also provide benefits in terms of appearance and sports. Raising awareness of these options can support informed decision-making.

Aims: To describe awareness, preferences and factors associated with the selection towards refraction correction methods for myopia among undergraduates with myopia in a state university in Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 130 myopic undergraduates of a state university in Sri Lanka. Participants were selected using probability proportionate to size sampling from two onsite batches comprising students in computer science (CS) and information systems (IS), with proportions based on their batch-wise distribution. Data were collected via a self-administered questionnaire. Knowledge of spectacles and contact lenses was assessed using a Likert scale and scoring system, and the associations with preferred correction methods were evaluated using chi-squared test.

Results: Most students (n=76; 58.5%) preferred spectacles over contact lenses (n=37; 28.5%) and surgery (n=48; 36.9%) for vision correction. A majority were neutral on whether spectacles provided better vision than contact lenses (70%) or surgery (60%). While 90.4% were aware of contact lenses, 66% were neutral about their effectiveness compared to other methods. Among those aware of refractive surgery (88.5%), over half (53.8%) lacked knowledge of specific procedures. Contact lenses were preferred by 22.3% for ease during physical activity, while 34.6% avoided them due to fear of side effects. Among the 48 who preferred surgery, 37.5% cited comfort as the reason. Significant associations were found between family use of correction methods and students' use of spectacles (χ^2=14.77; p=0.002) and preference for surgery (χ^2=10.04; p=0.02). Female sex was significantly associated with preference for surgery (χ^2=5.21; p=0.02).

Conclusions: The study shows that most participants preferred spectacles over contact lenses and surgery, with many expressing neutrality when comparing the benefits of these methods. Although awareness of all methods was high, further education is needed to address neutrality and improve informed decision-making on vision correction options.

Keywords: Awareness, Preferences, Myopia, Correction, Sri Lanka

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OP 49

Eliciting patient preference for hospital at home programme in Singapore: a discrete choice experiment

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Background: Hospital overcrowding in Singapore has reached critical levels, driven by an ageing population and rising rates of chronic illness, challenging the sustainability of the conventional hospital model. In response, hospital-at-home (H@H) programmes have emerged as alternative care models, leveraging telehealth and home-based care.

Aims: To determine patient preferences for a hospital-at-home programme in Singapore using a discrete choice experiment (DCE)

Methods: An online panel survey was conducted with adult Singaporeans (21 years and above) who had been hospitalised in the past two years. Attribute development involved literature review, interviews, and expert consultation. Final attributes included care team type, communication method, care provider, out-of-pocket costs, additional services and place of readmission. Respondents completed choice tasks comparing two H@H alternatives and a status quo (inpatient care – fixed across scenarios). Analysis involved mixed multinomial logit (MMNL) and latent class models.

Results: A total of 602 respondents completed the survey. While there was no strong preference for care team type, communication method or provider of additional services, respondents preferred a doctor-led team and readmission to a specific ward over the emergency department. Positive predictors for H@H preference included income >$6,000, health insurance and comorbidities, while those over 37 years showed lower preference. Out-of-pocket cost (71% relative importance) and care provider composition (12%) were the most influential attributes. The anticipated adoption rate for H@H was 83%.

Conclusions: H@H programmes are strongly preferred by patients and have the potential to alleviate hospital overcrowding when aligned with patient preferences. Future steps could include evaluating their cost-effectiveness to support wider implementation.

Key words: Discrete choice experiment, Choice modelling, Hospital-at-home, Patient preferences

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OP 50

A comparative analysis of myocardial infarction among youth in Sri Lanka in 2017 and 2022

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Background: An increasing trend of youth myocardial infarction (MI) is observed in USA and India. National evidence and temporal trends of youth MI (15–29 years) in Sri Lanka remain scarce, aside from signals from clinicians and studies focusing on risk factors.

Aims: To compare the characteristics of MI among youth in SL from 2017 to 2022

Methods: A national cross-sectional study was conducted on ICD-10 classified secondary data of the electronic indoor morbidity and mortality register (eIMMR). All MI and subtypes among youth were included. Incomplete data were excluded. Almost 90% of hospital admissions were captured by the eIMMR since 2017. Data were analysed in SPSS version 25 and Excel 2019, applying two-tailed Z test.

Results: Number of youth MI admissions nearly doubled from 416 in 2017 to 781 in 2022; 33.9 in 2017 and 74.76 in 2022 per 100,000 youth admissions; 6.7 in 2017 and 1.3 in 2022 youth MI per 100,000 all hospital admissions. Youth attributed proportion among MI cases demonstrated an upward trend ($z=-2.1$; $p<0.05$). The male-to-female ratio among admissions increased slightly, from 1.8:1 in 2017 to 1.9:1 in 2022. In 2017, there was no significant gender difference in the proportion of youth attributed to MI admissions ($z=0.41$; $p>0.05$). However, by 2022, males were more affected than females ($z=2.96$; $p<0.05$). The overall case fatality rate (CFR) of MI showed a decreasing trend ($z=9.3$; $p<0.001$). However, this decline was not statistically significant among youth ($z=0.22$; $p>0.05$). Despite this, the proportion of youth among total MI deaths increased from 2017 to 2022 ($z=-5.6$; $p<0.001$), driven by a rise in male deaths, whereas female deaths exhibited a decreasing trend during the same period.

Conclusions: There is an unrecognized need to prioritize youth health in health promotion, risk factor screening, and clinical management in Sri Lanka.

Key words: Youth, Myocardial infarction, Gender, Case fatality rates, Admissions

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OP 51

Facility readiness and coverage of screening for non-communicable diseases in selected primary health care institutes in Sri Lanka

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Background: Early screening for non-communicable diseases (NCD) at primary health care centres is a cost-effective strategy to reduce the burden of diseases.

Aims: To describe the association between facility readiness and early screening coverage of NCDs in selected primary health care institutes in Sri Lanka

Methods: This is a cross-sectional secondary analysis of Primary Health Systems Strengthening Project (PSSP) verification data using a digital, self-administered questionnaire from hospitals, collected from September 2023 to March 2024. The accuracy of information was verified by the relevant provincial and regional directorates. Facility Readiness Index was calculated using an adapted version of the WHO Package of Essential Non-communicable Disease (WHO PEN) intervention assessment tool for facilities. Adequacy of the facilities were determined by 70% of the mean Facility Index score based on published literature. Comparisons between Facility Index score and high population screening for NCDs were made at 95% confidence limits using correlation coefficients.

Results: The survey included 590 health institutes. Of the institutes, 188 (31.8%) were primary care medical units and 402 (68.1%) were divisional hospitals. They represented all provinces and all regional director of health service areas in the country. The mean Facility Index score was 44.92 (SD=11.72). Majority of the facilities with high Facility Index were divisional hospitals (n=232; 77.9%; $p<0.05$). High Facility Index was associated with high population screening coverages for NCDs, with a correlation coefficient of 0.46 (95% CI: 0.36, 0.55; $p<0.05$).

Conclusions: Availability of facilities improve screening coverage in primary care institutions. Establishing essential facilities will further improve the population coverage of early screening for NCDs.

Key words: Noncommunicable diseases, Facility readiness, Primary care institutes

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OP 52

Prevalence of myopia and its associated factors among first year medical undergraduates of a university in Sri Lanka

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Background: Myopia is a common refractive error that is becoming a global health problem due to its rising prevalence among the world population, particularly in developing countries.

Aims: To describe the prevalence and associated factors of myopia in a selected group of medical students studying at a university in Sri Lanka

Methods: An analytical cross-sectional study was conducted among 194 first year medical students in the Faculty of Medical Sciences, University of Sri Jayewardenepura, selected using consecutive sampling. Final sample amounted to 187. All students present during the time of data collection were included, and students with ocular abnormalities other than myopia were excluded from the study. A clinical examination using a Snellen letter chart was employed to diagnose myopia, and data regarding socio-demographic and other associated factors were collected through a self-administered questionnaire. Chi-squared test was applied and p-value <0.05 was considered statistically significant.

Results: The prevalence of myopia was 35.8% (n=67), with a margin of error of 6.87 calculated according to 95% confidence interval. Urban living environment (p=0.035), higher number of family members with myopia including siblings (p<0.001), near work distance of <1 ft (p=0.006) and the use of safety precautions with visual display units (p=0.001) showed significant association with the presence of myopia.

Conclusions: Myopia was shown to be a prevalent refractive error among first year medical students. It is recommended to have educational campaigns highlighting the modifiable risk factors for myopia.

Key words: Myopia, prevalence, Parental myopia, Family history

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OP 53

Assessment of health-related quality of life and associated factors in end stage kidney disease patients on haemodialysis of a tertiary hospital in Northern Sri Lanka

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Background: The current epidemic in Sri Lanka is seen with an exponential rise in the number of end stage kidney disease (ESKD) patients.

Aims: To assess health-related quality of life (HRQOL) and associated factors among ESKD patients undergoing haemodialysis at the Teaching Hospital, Jaffna, Sri Lanka

Methods: This cross-sectional study was conducted among all 108 patients who attended the Renal Unit of the teaching hospital over a period of three months. Their HRQOL was assessed using KDQOL-SF™, which has been validated for Sri Lanka. The questionnaire consists of 19 domains and a 100-point scale categorized into three components: physical component summary (PCS), mental component summary (MCS) and kidney disease component summary (KDCS). The PCS and MCS are generic SF-36 instruments, and the KDCS is a kidney disease-specific instrument. The score of each HRQOL question ranges from 0 to 100. Using the mean, HRQOL was categorized into three groups: >1 SD above the mean as 'good', mean ± 1SD as 'fair' and mean score below 1 SD as 'poor'.

Results: According to the KDQOL SF-36 scores, 19.4% of the patients had poor HRQOL, 63.9% had fair HRQOL and 16.7% had an excellent HRQOL. Diabetes (40.7%) and hypertension (22.2%) were the leading causes for CKD among the patients. The mean systolic blood pressure was 166.14 (SD=27.95) while 93.5% had suboptimal haemoglobin. Advanced age ($p<0.001$), poor economic status ($p=0.01$), marital status ($p=0.028$), educational status ($p=0.02$) and absence of arteriovenous fistula (AVF) ($p<0.003$) significantly affected the QOL. Further, it was low among those having suboptimal haemoglobin ($p=0.05$). However, dialysis frequency ($p=0.16$) and duration ($p=0.24$) did not significantly affect their QOL.

Conclusions: Health authorities should focus on maintaining haemoglobin status, optimal control of blood pressure and early AVF creation in ESKD patients. Especially in developing countries, though challenging, measures to improve educational and economic status should be considered in view of improving HRQOL.

Key words: End stage kidney disease, Haemodialysis, Health related quality of life

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OP 54

Exploring healthcare delivery commissioning: identifying global challenges to effectiveness

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Background: Healthcare commissioning involves planning and procuring health services that meet local population needs. However, experiences to date highlight challenges in implementation.

Aims: To examine how healthcare commissioning is implemented globally with a focus on implementation challenges and facilitators

Methods: Informed by the EPIS (Exploration, Preparation, Implementation, Sustainment) Framework, the review systematically explores challenges and enablers experienced at the outer (external influences), inner (organisational and operational factors) and bridging (interactions and coordination between inner and outer) contexts. Following the JBI methodology for scoping reviews, comprehensive database searches were conducted in Scopus, PsycINFO, MEDLINE, and Web of Science. The search results were screened in two stages: title and abstract screening followed by full-text review. Screening was conducted independently by two reviewers, with conflicts resolved by a third reviewer to ensure consensus and adherence to the predefined inclusion criteria. Data extraction captured commissioning cycle stages, stakeholder roles, and contextual challenges and facilitators categorised using the EPIS framework. Review registration: Open Science Framework (https://doi.org/10.17605/OSF.IO/CMRF3).

Results: A total of 82 articles were included. The review identified six stages in the healthcare commissioning cycle. Challenges included policy inconsistencies, political influences and funding instability (outer context); structural fragmentation, limited resources and ambiguous leadership (inner context); and weak data-sharing systems and inter-agency communication challenges (bridging context). Facilitators included inclusivity, standardised processes and technology.

Conclusions: Healthcare commissioning holds significant potential to improve healthcare delivery by aligning services with population needs. However, its effectiveness relies on overcoming contextual challenges through inclusive practices, robust integration, and technological advancements.

Key words: Healthcare delivery commissioning, Global challenges to effectiveness, Scoping review

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OP 55

'Nothing for us without us': adolescents taking a leading role in the provision of low-cost high-impact quality primary health services in Eastern and Southern Province of Zambia towards Universal Health Coverage

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Background: Zambia, a low- and middle-income country in Sub-Saharan Africa, has a majority of its population living in rural areas, with 25% of them being adolescents. Access to quality adolescent health services is limited due to inadequate medical supplies and equipment. Inadequate health infrastructure, such as designated adolescent-friendly spaces, also negatively impacts the uptake of comprehensive health services. The Ministry of Health, with support from partners, funded 27 districts in Eastern and Southern Provinces, due to their high incidence of HIV and teenage pregnancies, to improve the provision of comprehensive adolescent health services. The adolescents conducted community-based social mobilization and outreach sessions, radio programs and implemented the Community Adolescent Treatment Supporters (CATS model) for routine peer-to-peer counselling for HIV at health centres.

Aims: To assess the effectiveness of community-based interventions for routine peer-to-peer counselling for HIV at health centres

Methods: The Health Management Information System (HMIS) was used to conduct trends and comparative analyses for the HIV and family planning indicators, between 2021 and 2024. Quarterly provincial progress reports were analysed to assess the adolescents reached.

Results: Over 25,860 adolescents received comprehensive adolescent health messages across 27 districts. Additionally, the proportion of new family planning acceptors among adolescents aged 15-19 years increased from 31% in 2021 to 58% by December 2024, with 843,319 adolescents accessing HIV testing services, reducing HIV positivity rates from 2.3% in 2021 to 0.6% in 2024.

Conclusions: Investing in low-cost, high-impact, and high-quality comprehensive adolescent health services in resource-constrained settings is crucial for achieving universal health coverage. It also has the potential of scalable and sustainable models for health service delivery.

Key words: Adolescents; Low-cost, high-quality, and high-impact interventions, Sustainability

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OP 56

Expectations and perception gaps related to public primary health care among rural community in Gampaha District, Sri Lanka

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Background: Public primary healthcare (PPH) plays a crucial role in the ensuring the well-being of rural communities, yet disparities in perception and expectations can impact its effectiveness. There are gaps between expectations and differing views on service quality, accessibility and responsiveness about PPH services.

Aims: To explore the gaps, aiming to understand the perceptions and expectations of the community identifying potential improvements to bridge the gaps

Methods: A descriptive cross-sectional study was conducted among 501 households in rural areas in Gampaha District using a two-stage cluster sampling method. Modified service quality assessment tool was introduced to heads of the households to obtain details of the expectations and perception gaps in the service which assess five dimensions; tangibility, reliability, responsiveness, assurance and empathy. Descriptive statistics are presented as mean with standard deviation.

Results: The lowest mean perception dimension was tangibility (3.54; SD=0.97) and the highest was empathy (3.92; SD=1.24). The lowest mean expectation dimension was assurance (6.4; SD=0.92) and the highest was tangibility (6.5; SD=0.83). The perception expectation gap of service quality, the lowest mean gap of service quality between expectation and perception was observed for assurance (-2.35; SD=1.23) and the highest mean gap was observed for tangibility (-2.96; SD=1.27).

Conclusions: A significant gap between expectations and perceptions of rural households regarding PPH services, particularly in the areas of tangibility and assurance. Targeted interventions to enhance infrastructure through improving facilities, training staff for better service reliability, and improving communication between healthcare providers and the community is essential to reduce the gap.

Key words: Expectations, Perception gaps, Rural community, Primary healthcare

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OP 57

Quality of life and associated factors among hypertensive patients followed up at Teaching Hospital, Kalutara in Sri Lanka

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Background: Hypertension is one of the leading non-communicable diseases, significantly impairing patients' quality of life (QOL). Hence, it is essential to understand the QOL among hypertensive patients and its influencing factors for their comprehensive management. Despite its importance, local studies on the same are limited.

Aims: To assess the QOL and associated factors among hypertensive patients followed up at Teaching Hospital, Kalutara, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 423 adult hypertensive patients followed up at medical clinics in the teaching hospital. The sample was selected using stratified probability proportionate systematic sampling. A pre-tested, self-administered questionnaire was used for data collection, which incorporated the locally validated WHO QOL-BREF questionnaire. Multivariate analysis was done using Logistic regression with 95% CI.

Results: The response rate was 100%. Unsatisfactory QOL was <60 in transformed score. Anxiety (adjusted OR (AOR)=2.9; 95% CI=1.74, 4.67), complications of hypertension (AOR=2.3; 95% CI=1.36, 3.91) and living alone (AOR=4.1; 95% CI=2.33, 7.45) resulted in poor physical QOL (classification accuracy 76.4%). Anxiety (AOR=2.9; 95% CI=1.91, 4.49), complications of hypertension (AOR=2.0; 95% CI=1.36, 3.15) and low education (AOR=1.5; 95% CI=1.03, 2.39) resulted in poor psychological QOL (classification accuracy 64.8%). Depression (AOR=2.0; 95% CI=1.16, 3.64), complications of hypertension (AOR=2.9; 95% CI=1.84, 4.61), females (AOR=1.7; 95% CI=1.07, 2.7) and low education (AOR=2.6; 95% CI=1.65, 4.22) resulted in poor environmental QOL (classification accuracy-69.7%).

Conclusions: Depression, anxiety, complications of hypertension and certain demographic and social factors significantly impair the QOL among hypertensive patients. Incorporating QOL assessments, mental health screening and provision of psychological support are recommended for holistic hypertension management.

Keywords: Hypertension, Quality of life, Complications, Anxiety, Depression, Kalutara

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OP 58

Sri Lanka's economic crisis on preventive health services: challenges in work performance among medical officers of health in the Western Provincial Health Directorate, Sri Lanka

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Background: Sri Lanka's economic crisis has strained its public healthcare system, including preventive health services delivered by medical officers of health (MOH). The outflow of medical officers, due to the economic crisis, has contributed to staffing shortages and compromised overall quality of services.

Aims: To assess the impact of Sri Lanka's economic crisis on work performance of MOHs in Western Provincial Health Directorate, Sri Lanka

Methods: This was a descriptive cross-sectional study carried out in all MOH offices in the Western Province. The participants included both MOHs and additional MOHs. All 146 eligible participants were included using convenience sampling. A pre-validated self-administered questionnaire was used to collect data on work performance. The pre-testing was done in Puttalam District. Data were analysed using descriptive statistics.

Results: A total of 130 participated with a response rate of 89% from all 47 MOH offices. Majority stated that the economic crisis has affected their income (n=115; 88.5%), transport (n=117; 90%), their work performance (n=77; 59.2%), reduced salaries (n=123; 94.8%) and purchasing power (n=98; 75.7%). Less than half stated that economic crisis has reduced their overtime income (n=53; 40.9%) and unpaid allowances (n=57; 43.5%). Less than half (n=58; 44.6%) were engaged in private practice for additional income. Majority (n=92; 70.8% and n=113, 86.9%, respectively) stated that transport and service provision were affected, resulting in reduced quality and increased workload. The shortages in essential supplies and staff aggravated the issues.

Conclusions: The economic crisis hindered the work performance, leading to reductions in the quality-of-service delivery and increasing the burden on healthcare providers. Austerity measures are needed to be taken to develop a comprehensive crisis response plan.

Key words: Economic crisis, Work performance, Medical officer of health, Western Province

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OP 59

Challenges in Universal Health Coverage of preventive health services in Western Province amid Sri Lanka's economic crisis

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Background: Economic crises can potentially hinder achieving Universal Health Coverage (UHC) by exhausting retaining healthcare workers and reducing the available resources, and thus impacting the delivery of health services, as seen in Sri Lanka's economic downturn exacerbated by the COVID-19 pandemic.

Aims: To assess the challenges encountered due to the economic crisis on health coverage to preventive health care as perceived by medical officers of health (MOH) in the Provincial Director of Health Service (PDHS) Area in Western Province, Sri Lanka

Methods: This descriptive cross-sectional study was conducted in all MOH offices within Western Province. The study population consisted of MOHs and additional MOHs, with all 146 eligible participants being invited to the study. Data on UHC were collected using a pre-validated self-administered questionnaire, which was pre-tested in the Puttalam District. Descriptive statistical methods were used for data analysis.

Results: A total of 130 participated, with a response rate of 89% from all 47 MOH offices. There were 45 MOHs and 85 additional MOHs. Participants responded that economic crisis has led to reduced public awareness activities (n=103; 79.1%), limited training opportunities (n=80; 61.8%) and increased out-of-pocket expenditures for medicines (n=119; 91.5%), investigations (n=115; 88.5%) and transport (n=120; 92.3%). Half of the participants responded that supervision has been decreased, while 52.3% responded that record keeping has got affected. Majority (72.3%) of the participants responded that the provision of motor bicycles was affected, while 40.0% indicated that allowances for pregnant and lactating mothers were delayed. Regarding increased patient attendance at government clinics, participants stated that it resulted in overcrowding (89.9%) and longer wait times (77.8%).

Conclusions: The economic crisis notably impacted healthcare service quality, availability of services, and increased financial burden on the community. These challenges underscore the urgent need for strategic interventions to mitigate the adverse effects on the healthcare system.

Key words: Economic crisis, Universal Health Coverage, Medical officer of health, Western Province

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OP 60

Unmet needs of people with type 2 diabetes mellitus in Gampaha District, Sri Lanka

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Background: Type 2 diabetes mellitus (T2DM) is a major contributor to the disease burden in Sri Lanka. Despite government intervention, major gaps in diabetes care remain.

Aims: To assess the prevalence and associated factors of unmet needs among persons with T2DM in Gampaha District, Sri Lanka

Methods: A cross-sectional study identified 401 adults with T2DM from a sample of 1,767 individuals aged 40–69 years in the district, using multi-stage cluster sampling. An interviewer-administered survey assessed unmet needs for physician care, medicines and investigations over the past year. The correlates of unmet needs, based on the health behaviour model, were analysed using binomial logistic regression ($p<0.05$).

Results: Overall, 20% of participants reported at least one unmet need (95% CI: 15.7, 23.7), including 16% for physician care (95% CI: 12.7, 20.2), 4.2% for medicines (95% CI: 2.5, 6.7) and 6.0% for investigations (95% CI: 3.9, 8.8). Those who frequented private providers reported fewer unmet needs. Lower unmet need for physician care was associated with being female (adjusted odds ratio (AOR)=0.5; 95% CI: 0.27, 0.92) and having higher income (AOR=0.37; 95% CI: 0.16, 0.83). The absence of other major chronic conditions (AOR=0.31; 95% CI: 0.12, 0.8) and having a regular provider, public (AOR=0.24; 95% CI: 0.07, 0.89) or private (AOR=0.18; 95% CI: 0.05, 0.68), were linked to fewer unmet needs for investigations. Private care also reduced unmet need for medicines (AOR=0.11; 95% CI: 0.02, 0.77).

Conclusions: Despite Sri Lanka's predominantly publicly funded health system, unmet needs, especially for physician care, were observed among people with T2DM and varied by socio-economic status. Expanding chronic care coverage should prioritize patient-centred models with regular providers and address existing care gaps.

Key words: Unmet need, Diabetes mellitus Type 2, Sri Lanka, Health Behaviour Model

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OP 61

Enhancing dietary diversity and food security among low-income Sri Lankan households: a quasi-experimental study

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Background: The economic crisis in Sri Lanka exacerbated food insecurity, leaving millions confronting moderate to severe food shortages.

Aims: To assesses the efficacy of cash transfers coupled with mobile health education in improving dietary diversity and food security among low-income families in Sri Lanka during the economic crisis

Methods: This quasi-experimental single-group pre-post study encompassed 1,040 eligible participants, chosen by stratified random sampling from households of Samurdhi recipients and smallholder farmers. The intervention comprised a financial transfer of LKR 22,500, supplemented by weekly nutrition awareness messages delivered through WhatsApp and short message service (SMS), along with a single awareness workshop. Dietary diversity and food security were evaluated utilizing standardized validated instruments, specifically the Diet Quality Questionnaire (DQQ) and the 6-item Food Security Questionnaire. NCD-Protect Scores, GDR scores NCD -risk scores were calculated.

Results: Food insecurity diminished markedly from 89.3% (n=681) in the pre-test to 76.9% (n=533) in the post-test, reflecting a 12.4% decrease (95% CI: 8.57, 16.24; $p<0.05$). The minimum dietary diversity for women increased from 44.5% to 67.8%, reflecting a 23.3% rise (95% CI: 15.89, 30.63; $p<0.05$). The mean NCD-Protect and GDR scores exhibited a considerable rise, reflecting enhanced compliance with worldwide dietary guidelines, whereas the NCD-risk scores remained stable.

Conclusions: This study revealed that cash transfers, coupled with mobile phone-based nutritional education, markedly enhanced dietary diversification and food security among low-income households in Sri Lanka under the financial crisis.

Key words: Dietary diversity, Food security, Sri Lanka, Quasi-experimental study

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OP 62

Assessing consumer understanding and perceptions of traffic light front-of-package labelling in Sri Lanka

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Background: Front-of-package labelling is a tool that involves ensuring the visualization of nutritional and health information on the front of food and beverage packaging in a manner that is immediately noticeable and understandable. Given the significant burden of non-communicable diseases linked to dietary choices, there is a need to identify potential solutions to encourage healthier eating habits.

Aims: To assess the level of knowledge of traffic light front-of-package labelling system among consumers and their perceptions on adequacy, clarity and usefulness of the information provided to make healthier dietary choices

Methods: This descriptive cross-sectional study involved 2,569 participants representing 25 districts chosen by multistage cluster sampling with various demographic backgrounds from November 2022 to April 2023.

Results: The findings revealed a good level of knowledge and understanding among participants regarding the traffic light front-of-package labelling system, with more than 80% of participants recognizing colour codes relevant to nutritional levels. A significant proportion of participants expressed satisfaction with the adequacy (53.4%), clarity (60.6%) and helpfulness (70.7%%) of the information provided by the traffic light system. Positive associations between knowledge of traffic light system and ethnicity (adjusted odds ratio (AOR)=2.52; 95% CI: 2.04, 3.11), age ≥30 years (AOR=1.68; 95% CI: 1.43, 1.98), household income >LKR 5,000 (AOR=1.21; 95% CI: 1.01, 1.45), education of G.C.E. Advanced Level or above (AOR=1.41; 95% CI: 1.16, 1.72) and an increased likelihood of adhering to best practices during the purchasing process (AOR=2.54; 95% CI: 1.95, 3.32).

Conclusions: The recommendations include targeted awareness campaigns, continuous educational programs, and regular evaluations of the front-of-package labelling system to maintain its efficacy and relevance.

Key words: Food labelling, Noncommunicable diseases, Consumer behaviour, Food packaging, Food industry, Nutritional quality

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OP 63

A quasi-experimental study to assess the effectiveness of a health promotion intervention package to improve practices on the use of cooking oils and fats

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Background: Unhealthy practices related to cooking oils and fats contribute to the non-communicable disease burden. Interventions to promote healthier practices are essential.

Aims: To assess the effectiveness of a health promotion intervention delivered through community support groups to improve practices related to cooking oils and fats

Methods: A quasi-experimental study was conducted among mother support group (MSG) members in Padukka (intervention arm) and Homagama (control arm) Medical Officer of Health (MOH) Divisions. Fifteen MSGs with 10 members each were randomly selected. The intervention arm received a health promotion package via social media and printed materials over 18 weeks since the initial assessment. Pre- and post-intervention assessments were conducted over six months using a validated self-administered tool. Outcomes (practices, knowledge, and perceptions) were compared within arms (paired t-test, McNemar's test) and between arms using marginal linear regression models estimated by generalized estimating equations (GEE).

Results: At baseline, high perception levels were noted in both arms (98.6-98.7%). Significant improvements were seen in the intervention arm for knowledge ($p<0.001$) and practices ($p<0.001$) within-group comparisons. Post-test between-group analysis confirmed statistically significant improvements in the intervention group for knowledge and practices ($p<0.001$; GEE adjusted models). Perception scores improved to 100% in both arms.

Conclusions: The intervention effectively improved practices and knowledge regarding the use of cooking oils and fats during the study period. This community-based package shows promise for wider application.

Key words: Cooking oils and fats, Health promotion, Dietary practices, Quasi-experimental study

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OP 64

Nutrient profile modelling: a tool for promoting healthy dietary choices

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Background: Nutrient profiling is 'the science of classifying foods according to their nutritional composition for reasons related to preventing disease or promoting health'. Nutrient profile models (NPM) are used to identify healthy foods, regulate the marketing of foods to children and imposing health taxes for food.

Aims: To review methods of classifying food in NPMs adapted globally

Methods: A comprehensive literature search was done on available literature on NPMs globally and a template was developed including a detailed analysis of the following parameters: objective of the NPM, nutrients considered (positive/ negative) and the method for demarcation-cut off levels/ cumulative score/ categorization/ presence or absence of each nutrient, processing of food.

Results: Seven NPMs, namely Sri Lanka (SLM), UK (UKM), Australia and New Zealand (AZM), Malaysia (MAM), France (FRM), Denmark (DNM) and Pan American Health Organization (PAM) were included in the study. Most models aim to regulate the marketing of ready-to-eat foods, based on composition. Five models consider both positive nutrients (protein, fibre, fruits, vegetables, nuts) and negative nutrients (carbohydrate, fat, sugar, salt, additives, sweeteners), while two models consider only negative nutrients. SLM, categorize food as 'not acceptable' upon exceeding one or more negative nutrient. UKM and AZM use a cumulative nutrient score. In UKM, a score of ≥4 categorized as 'less healthy'. AZM categorize food as 'permitted' or 'not permitted' to carry health claims. MAM categorizes food as 'healthy' and 'less healthy'. FRM and DNM classifies food into classes on total nutrient score. FRM classifies food into five classes, ranging from higher to lower nutritional quality. DNM divides food groups into three categories symbolizing how much food can be included in a healthy diet: 'most', 'less' or 'least'. PAM is limited to evaluating processed and ultra-processed products irrespective of nutrient composition.

Conclusions: Classification methods in NPMs vary markedly. None of the models consider the amount consumed and the actual serving size. Study findings can be used to modify and validate the current NPM for Sri Lanka.

Key words: Nutrient profile modelling, Unhealthy food

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OP 65

The prevalence of obesity and its relationship with sedentariness among office workers within Kandy City limits, Sri Lanka

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Background: In Sri Lanka, the working population (15 years and above) numbers over 17 million, with only 49.9% participating in the labour force. The workforce is mainly in rural, urban and estate sectors, with most employed in services (46.7%), agriculture (27.3%) and industry (26.0%). Urban office workers, the key contributors to the economy, face risks from sedentary lifestyles due to greater food availability, fast food and less physical activity. Since 2010, obesity has surged in Asia, especially in low- and middle-income countries. In Sri Lanka, urban areas show a significant increase.

Aims: To assess the body mass index (BMI), sedentariness and their association among office workers in an urban area in Sri Lanka

Methods: A self-administered questionnaire was distributed among office workers in Kandy City limits. The sample size was calculated for an estimated prevalence of 50% and for 10% dropout. Body mass index was calculated and categorized using standard protocols. Chi-squared test was used to assess associations.

Results: A total of 331 responses were obtained (78.25%). Among them, 65.3% had a BMI >23 kg/m². Overweight and obesity were present in 43.5%. Males had significantly higher BMI ($p<0.01$). Sedentary behaviours were common, but no significant association was found between seated work hours and BMI.

Conclusions: Sedentariness contributes to overweight and obesity in office workers, especially among males.

Key words: Obesity, Sedentariness, Office workers, Kandy City limits, Sri Lanka

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OP 66

Knowledge on nutrition and its association with unhealthy dietary practices among non-medical undergraduates of a state university in Sri Lanka

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Background: Knowledge on nutrition is an important determinant of unhealthy dietary practices. With the rising burden of non-communicable diseases among young people, assessing the nutrition knowledge and unhealthy dietary practices among undergraduates has become important.

Aims: To describe the knowledge on nutrition, unhealthy dietary practices and their interrelatedness among non-medical undergraduates of a state university in Sri Lanka

Methods: A descriptive cross-sectional study was carried out involving 720 undergraduates selected from University of Kelaniya through a stratified cluster sampling method with probability proportionate to size. Data were collected using a pre-tested, self-administered questionnaire to assess the nutrition knowledge and unhealthy dietary practices. The nutrition knowledge scores were classified into 'low', 'moderate' and 'high' categories based on cutoff values corresponding to the 33.3rd and 66.6th percentiles. Associations were analysed using chi-squared test at $p<0.05$ significance level.

Results: Only 586 were analysed due to non-response (9.6%) and incomplete submissions (9.0%). The majority were females (n=383; 65.4%) and obtained meals from canteens (49.1%). The mean score of overall knowledge on nutrition was 17.16 out of 38 (SD=4.9). The 'low' knowledge level was shown by 39.8%, 59.2% and 37.4% for knowledge on food groups, knowledge on dietary recommendations and overall knowledge, respectively. 'Sugary snacks' (96.9%) was the commonest and 'processed meat' was the least consumed unhealthy food group (54.4%). Consumption status of none of the unhealthy food group was associated with their nutrition knowledge, but the latter was significantly associated with the degree programme ($p<0.001$) and academic year of the undergraduates ($p=0.046$).

Conclusions: The nutrition knowledge of undergraduates was unsatisfactory. The majority had unhealthy dietary practices, which were not associated with nutrition knowledge.

Key Words: Undergraduates, Unhealthy dietary practices, Knowledge on nutrition

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OP 67

Validity of the University of California Los Angeles Loneliness Scale – Sinhala (UCLA-LS-S) among older persons in Sri Lanka

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Background: Loneliness leads to poorer physical and mental health. Therefore, assessing loneliness is important in providing targeted services to the older persons. Existing tools have been developed in western settings and may not reflect the local cultural norms.

Aims: To adapt, translate and validate University of California Los Angeles (UCLA) Loneliness Scale version 3 for older persons aged 60 years and above in the district of Colombo, Sri Lanka

Methods: The scale was adapted by reviewing item content and structure by experts. It was translated using forward-backward methods. A cross-sectional survey among 240 older persons was carried out to assess the factor structure through exploratory factor analysis (EFA), followed by another cross-sectional survey in a different group of 238 older persons to assess the construct validity through confirmatory factor analysis (CFA). A convenience sampling was used. Internal consistency and test-retest reliability were assessed using Cronbach's alpha and Spearman correlation coefficient, respectively.

Results: The mean age of EFA group was 71.2 years. Females made up 61.2% of the sample. Twenty items were selected after the expert ratings. The exploration of factor structure of the 20 items, which were factorable through EFA with varimax orthogonal rotation extracted 19 items. One item was dropped due to low communality. The CFA confirmed a three-factor model as the best fit (Chi-squared value/DF1=1.63, GFI=0.984, NNFI=0.99; RMSEA=0.054). Cronbach's alpha was 0.9 and all three correlation coefficients for the test-retest reliability were above 0.9.

Conclusions: UCLA-LS-S is a valid and a reliable tool to assess loneliness among the older persons in Sri Lanka and it can be used by the health workers to identify at-risk individuals early for timely support.

Key words: Loneliness, Older persons, UCLA Loneliness Scale

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OP 68

The proportion of frailty, falls and their associated factors among older adults living in elders' homes in Colombo District.

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Background: Frailty and falls are critical health concerns among older adults, particularly those living in elder care homes as they significantly affect their overall well-being. Therefore, understanding the proportion and associated risk factors of these conditions is essential to develop interventions in order to improve the quality of life of the elderly population in elders care homes.

Aims: To describe the proportion of frailty, falls and their associated factors among older adults living in elders' homes in Colombo District, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 295 older-adults aged 60 years and above living in 10 elders' homes using a random sampling method. Older adults with severe cognitive impairment, communication difficulties and receiving psychological treatment were excluded. A validated interviewer-administered questionnaire was used along with the Fried Frailty Phenotype to assess frailty. Data regarding diseases and illnesses were obtained as self-reported or from the available medical records of the participants. A composite physical frailty score was generated by constituting five major components and those who scored three or higher were classified as 'frail'. Descriptive and inferential statistics were calculated with significance taken as $p<0.05$.

Results: The response rate was 86.7%. Majority of older adults were aged more than 70 years (n=156; 53.7%) and more than half of them were females (55.6%). Hypertension, diabetes, visual problems and sleep disturbances were seen in 53.9%, 42.4%, 35% and 27%, respectively. The findings revealed that 55.8% of participants had experienced falls, while 65.1% were categorized as frail based on the physical frailty phenotype criteria. Falls were significantly associated with those diagnosed with diabetes, stroke, hypertension, visual impairments, those on multiple long-term medications and anti-hypertensive drugs ($p<0.05$). Extrinsic factors such as slippers and slippery surfaces further contributed to falls risk. Frailty was significantly linked to osteoporosis, visual impairment, anxiety, fear and oral hypoglycaemic drugs usage ($p<0.05$).

Conclusions: There is a considerable prevalence of frailty and falls among older adults in elders' homes in Colombo District, with various health conditions as well as factors like reliance on assistive devices and certain medications. These findings highlight the need for comprehensive geriatric care and targeted preventive strategies tailored to reduce the burden. Furthermore, health education and training and policy advocacy along with the implementation of regular mechanisms of detection in at-risk individuals may enhance the quality of life and well-being.

Key words: Frailty, Falls, Elders, Elders homes

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OP 69

Prevalence of school connectedness among Grade 10 students in Sinhala medium government schools in Sri Lanka

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Background: According to the last census, adolescents make up 16.7% of Sri Lanka's 22.0 million population, with 71% attending school. School connectedness, comprising bonding, engagement and school climate, serves as a protective factor that fosters positive outcomes and well-being among adolescents.

Aims: To adapt and validate a tool to assess the prevalence of school connectedness among Grade 10 students in Sinhala-medium government schools in Sri Lanka

Methods: This study validated the School Connectedness Scale (SCS), a self-administered questionnaire developed by Lohmeier & Lee (2011) among 600 Grade 10 students selected from six schools in Kalutara District. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed on a sample size of 300 for each analysis. The tool was translated into Sinhala, culturally adapted and pre-tested. Structural models were created using AMOS version 21, and reliability was assessed through internal consistency and test-retest methods.

Results: The response rate was 100%. After EPA and CFA, a model with 30 items and four factors was generated. The four factors explained 30.3% of the total variance, The model indices were acceptable for model fit (RMSEA=0.036; CFI=0.934; NFI=0.804; SRMR=0.0681), with adequate internal consistency (Cronbach's alpha=0.721).

Conclusions: Sinhala version SCS was a valid and reliable instrument for assessing school connectedness among Sinhala medium Grade 10 students. The use of School Connectedness Scale (SCS) is recommended for assessing school connectedness among adolescents.

Key words: School connectedness, Bonding, Engagement, School climate

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OP 70

A qualitative exploration into vaccine hesitancy and perceptions in rural Sri Lanka

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Background: Vaccine hesitancy is the delayed acceptance or refusal of vaccines despite their availability. It poses a significant public health concern, and investigating its influencing factors is essential for safeguarding public health, as it can lead to outbreaks and weaken herd immunity.

Aims: To explore community perceptions about COVID-19 vaccines and factors that lead to vaccine hesitancy in rural Sri Lanka

Methods: A qualitative study using in-depth interviews was conducted to explore awareness, perceptions and factors influencing vaccine hesitancy among purposively selected community members in Anuradhapura who self-reported post COVID-19 vaccination complications. Data were thematically analysed.

Results: Fifteen in-depth interviews with five males and ten females aged 24-64 years were conducted. Findings revealed that vaccine hesitancy is shaped by factors at individual, family/community, health system and policy levels. Despite the general trust in vaccine effectiveness, individual factors such as poor knowledge, misinformation, fear of side effects, low perceived risk and personal beliefs, influenced future vaccine hesitancy. Community norms and family practices played a significant role, while limited healthcare access, institutional mistrust and poor communication emerged as system level barriers. At policy level, mandates and free vaccine provision encouraged uptake, whereas inconsistent messaging and lack of transparency fostered mistrust. Notably, experiences with COVID-19 vaccination strongly influenced future attitude towards vaccines.

Conclusions: Vaccine hesitancy is multifactorial, but modifiable. Recent vaccine experiences, perceptions and barriers may shape future vaccine hesitancy, highlighting the need for targeted education, trust-building, improved access, and community-led advocacy.

Key words: COVID-19 vaccine, Vaccine hesitancy, Sri Lanka

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OP 71

Prevalence of zoonotic filariasis in Puttalam District, Sri Lanka

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Background: Nearly 40% of *Brugia malayi* (Bm) patients were reported from Puttalam district, Sri Lanka in 2024. Zoonotic origin of human Bm was well-established in the country. *Dirofilaria repens* is also another form of zoonotic parasite affecting humans.

Aims: To assess the prevalence of zoonotic filarial parasites among dogs in Puttalam District, Sri Lanka

Methods: This was a descriptive cross-sectional study conducted among 300 dogs who had undergone sterilization surgery in the Puttalam District. Ear lobe pricked blood was collected to glass slides to make two thick smears. Equal random dog samples (n=50) were collected from six randomly selected medical officer of health (MOH) areas. Species and density of microfilaremia of canine filarial worms were documented. Descriptive statistics and ANOVA were performed.

Results: Microfilaria rate of Bm was 7.7% and of Dirofilaria was 17.7%. No statistically significant difference was observed in microfilaria rates for Bm (p=0.83) and Dirofilaria (p=0.248) between MOH areas. Microfilaria density was 2.76 per 1 ml of blood for Bm and 17 per 1 ml of blood for Dirofilaria.

Conclusions: Although no significant variation in infection rates was observed across MOH areas, the parasite density was higher for Dirofilaria compared to Bm. A targeted surveillance program should be implemented to monitor zoonotic filariasis in both human and animal populations, accompanied by integrated parasitic and vector control strategies and community education to reduce the risk of transmission.

Key words: Zoonotic filariasis, Puttalam district, Sri Lanka

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OP 72

Superbugs and sustainable development: Exploring the impact of antimicrobial resistance on global goals

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Background: Antimicrobial resistance (AMR), primarily driven by the misuse and overuse of antibiotics, presents a growing threat to global health. Superbugs such as methicillin-resistant *Staphylococcus aureus* (MRSA) and drug-resistant *Escherichia coli* compromise the effectiveness of treatments, increasing mortality and healthcare burdens. Beyond its direct health impact, AMR also undermines progress toward multiple United Nations Sustainable Development Goals (SDGs), including SDG 3 (good health), SDG 2 (zero hunger), SDG 6 (clean water and sanitation) and SDG 8 (decent work and economic growth).

Aims: To investigate the relationship between SDG Indicator 3.d.2 (health sector's ability to respond to AMR) and other key SDG indicators, to understand the broader development implications of AMR

Methods: A descriptive analytical approach was employed using secondary data from 96 UN member states. Data were extracted from the United Nations Sustainable Development Goals indicators database, managed by the Department of Economic and Social Affairs (DESA) via the UN SDG data portal (https://unstats.un.org/sdgs/dataportal), during March and April 2025. Due to the periodic nature of data submissions by countries, the most recent data available pertain to the period from 2017 to 2022 and were included in the analysis. The study analysed the correlations between SDG Indicator 3.d.2 (specifically SDG 3.d.2.a: percentage of MRSA isolates and SDG 3.d.2.b: percentage of E. coli isolates resistant to third-generation cephalosporins) and various socioeconomic and environmental SDG indicators. Bivariate analysis was conducted using Pearson(r) and Spearman(ρ) correlation coefficients to assess the strength and direction of these relationships.

Results: MRSA infections (SDG 3.d.2.a) showed strong negative correlations with social protection - SDG 1.3.1 (r=-0.744; p=0.762), universal health coverage - SDG 3.8.1 (r=-0.718; p=0.779) and access to safe drinking water - SDG 6.1.1 (r=-0.687; p=0.751); and a positive correlation with under-five mortality - SDG 3.2.1 (r=0.557; p=0.753). Similar trends were observed for *E. coli* resistance (SDG-3.d.2.b).

Conclusions: Superbugs pose a multidimensional challenge to sustainable development. Addressing AMR necessitates integrated, multi-sectoral efforts encompassing stronger health systems, improved sanitation and antibiotic stewardship. One Health strategy framework is vital for effectively addressing AMR and ensuring the achievement of the 2030 Sustainable Development Agenda.

Key words: Key superbugs, Antimicrobial resistance, Sustainable Development Goals

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OP 73

A knowledge-driven study for identifying anomalous antibiotic prescriptions in hospital settings

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Background: Antibiotic prescription errors pose a significant threat to patient safety, with common issues such as incorrect dosing, frequency and duplication, often resulting in prolonged hospital stays and increased morbidity. Inappropriate antibiotic use is a leading contributor to antimicrobial resistance, which is projected to cause up to 10 million deaths annually by 2050.

Aims: To develop and validate a rule-based system capable of identifying anomalous antibiotic prescriptions in hospital setting using a clinically validated knowledge base and real-world hospital data from the MIMIC-IV database

Methods: The research was developed using a clinically validated knowledge base of 95 antibiotic generics, constructed through the guideline of medicine literature and healthcare professionals' iterative feedback. The approach involved analysing prescription doses in relation to patient-specific information such as disease, administration route, and creatinine clearance. If disease-specific dosing is not applicable, the system applies standard dosing protocols for each generic to validate the prescribed dose. Any prescribed dose falling outside recommended limits or exceeding renal-adjusted thresholds was marked as a potential anomaly. Model validation was performed using 645,387 prescriptions from the hospital records of MIMIC-IV, spanning 55 antibiotics. Physician review was conducted to assess the clinical validity of the flagged cases.

Results: The evaluation included 211,188 patient cases involving 54 antibiotic generics. Among these, 26% of prescriptions were flagged for potential issues such as dosing errors, administration mismatches, and missed renal adjustments. Physician review confirmed 87% of the flagged cases as valid concerns. From the total number of dosing errors, the study accurately identified 41.96% as overdoses (including those exceeding renal-adjusted limits) and 58.02% as underdoses, with clinical validation rates of 85% and 92%, respectively.

Conclusions: This research demonstrated strong potential for improving antibiotic prescription safety. Its integration with computerized provider order entry (CPOE) systems could support safer prescribing, enhance prescription audits and promote responsible antibiotic use in clinical settings. The use of real-world data enabled practical validation of the model and underscored the importance of adaptable decision-support tools in antibiotic prescribing.

Key words: Antibiotic prescription errors, Clinical decision support, Antimicrobial resistance, MIMIC-IV, Renal dosing, CPOE integration

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OP 74

A cluster-randomized trial assessing long-lasting insecticide-treated nets for controlling *Phlebotomus argentipes* in Sri Lanka

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Background: Cutaneous leishmaniasis (CL), caused by *Leishmania donovani* and transmitted by *Phlebotomus argentipes*, is an emerging public health concern in Sri Lanka, with rising case numbers in endemic regions. Although long-lasting insecticide-treated bed nets (LLINs) are used for vector control elsewhere, their local effectiveness remains unassessed.

Aims: To evaluate LLINs' effectiveness versus untreated nets in reducing human-vector contact and *Ph. argentipes* density in CL-endemic areas

Methods: A cluster-randomized trial was conducted with 10 clusters per group, randomly assigned to intervention (LLINs) or control (untreated nets) using a computer-generated sequence. Each cluster included 30 spatially adjacent households. Blood samples were collected at baseline, 6 and 12 months to detect antibodies against *Ph. argentipes* salivary antigen (PASM). Sand fly density was monitored over 32 months using CDC light traps and cattle-baited traps. LLIN-induced mortality was assessed via bioassays. Incidence of CL was recorded post-intervention. A linear mixed-effects model (for antibody responses) and generalized linear model (for sand fly density) were used for analysis.

Results: PASM antibodies declined in the intervention group by 28.8% at 6 months ($p=0.00002$) and 44.9% at 12 months ($p=0.00001$). LLINs significantly reduced indoor sand fly density by 77.3% at 2 months, 89.3% at 10 months and 63.1% at 24 months ($p<0.0001$). Knockdown and mortality rates ranged from 100% to 81.5% and 100% to 90.4%, respectively. Six CL cases occurred in the control group, versus one in the intervention group.

Conclusions: LLINs significantly reduced *Ph. argentipes* exposure and indoor density, supporting their use for CL control in Sri Lanka.

Key words: Cutaneous Leishmaniasis, *Leishmania donovani*, Long-lasting insecticide-treated bed nets, Cluster randomized trial, Intervention

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OP 75

Reservoir host potential of dogs for *Leishmania donovani* transmission in an endemic focus in Sri Lanka

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Background: Cutaneous Leishmaniasis caused by *Leishmania donovani* is recognized as an endemic vector-borne disease in Sri Lanka where the suspected vector is *Phlebotomus argentipes*. Dogs are recognized as reservoir hosts and contribute to a zoonotic transmission of *L. donovani* in several endemic regions of the world yet their role in Sri Lanka remains unclear.

Aims: To understand whether the *L. donovani* transmission is maintained via dogs in Sri Lanka

Methods: A cross-sectional survey was conducted in the Matara and Hambantota districts, identified as endemic zones with high infection transmission for cutaneous leishmaniasis by integrating molecular, serological and xenodiagnostic techniques. Blood samples were collected for serum from 68 stray dogs trapped in selected public places. Skin scrapings were collected from suspected lesions and xenodiagnosis was performed using laboratory reared F1 generation *Phlebotomus argentipes* colony. DNA extracted from blood, skin scrapings and sandflies fed on dogs were subjected to PCR targeting Leishmania spp ribosomal DNA.

Results: All molecular assay results were negative. Already established KMP11 antigen-based indirect ELISA revealed that 50 out of 68 (73.52%) samples were seropositive for *L. donovani.*

Conclusions: These results indicate a high-level exposure of dogs to *L. donovani,* however, with no apparent evidence of parasite-positive lesions or infectivity to sandflies. The study outcome favours the assumption that the stray dogs may be potential reservoirs of leishmaniasis in Sri Lanka and highlights the importance of expanding such studies to involve larger numbers of dogs, from more endemic areas.

Key words: Cutaneous Leishmaniasis, *Leishmania Donovani*, *Phlebotomus Argentipes*, Reservoir hosts, Seroprevalence

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OP 76

Consumers' perception towards the use of spatial repellents as a household-level strategy for mosquito control in Gampaha District, Sri Lanka

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Background: The Advancing Evidence for the Global Implementation of Spatial Repellents (AEGIS) Project in Gampaha District, Sri Lanka is a double-blinded, cluster-randomised controlled trial conducted to evaluate the protective efficacy of the Mosquito Shield TM spatial repellent (SR), a novel mosquito control intervention expected to be introduced to control Aedes-borne diseases.

Aims: To qualitatively explore the user acceptability of SR and strategies used to enhance its uptake and sustained use in household settings, by Trials of Improved Practices (TIPs) approach

Methods: Participants (n=36) from the on-going trial in Gampaha District were purposively selected and interviewed using a semi-structured interview guide, at five time points over two years, starting from the initial SR installation.

Results: Most participants expressed high satisfaction with SR when compared with other products, noting it does not emit a strong odour, smoke or require electricity, and has a favourable shape and colour. The long shelf life of SR was also highlighted as a positive feature. Participants offered suggestions for improvement, including the addition of fragrance to provide added value to SR and the development of a portable version for travel use. However, some participants expressed dissatisfaction regarding both the quantity of shields installed per household and the methods employed for their installation.

Conclusions: External appearance of SR and installation method were primary concerns among users. In contrast, key factors contributing to its perceived desirability were its effectiveness in mosquito control and the user-friendly, externally sensible characteristics.

Key words: Spatial repellent, Mosquito control, Consumer perception

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OP 77

Chasing the cure: what drives rabies post-exposure prophylaxis service in Kalutara District, Sri Lanka?

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Background: Rabies, though 100% fatal, is entirely preventable. Despite free availability and accessibility of effective post-exposure prophylaxis (PEP), knowledge gaps and varied satisfaction levels with services persist. Understanding rabies-related knowledge, initial wound care, treatment-seeking behaviours and satisfaction among PEP recipients is essential for improving outcomes.

Aims: To determine rabies-related knowledge, practices, satisfaction with services and their associated factors among attendees of rabies PEP services in Kalutara District, Sri Lanka

Methods: A descriptive cross-sectional study was conducted in selected hospitals representing all care levels in the district from October to November 2024. An interviewer-administered questionnaire assessed knowledge, practices and satisfaction among 362 attendees. Knowledge was scored and categorized into 'satisfactory' and 'not satisfactory'; Practices were assessed using specific questions. Satisfaction was measured on a five-point Likert scale and categorized as 'satisfied' or 'less satisfied'. Statistical analysis included chi-squared test, Fisher's exact test and odds ratio.

Results: The response rate was 96% (n=362). Of them, 64.1% (n=232) had poor knowledge and 35.6% (n=129) had moderate knowledge regarding rabies. Despite the low knowledge level, 90.6% (n=328) sought care within 24 hours of exposure, while 88.4% (n=320) practised appropriate wound washing and 92.8% (n=336) completed the anti-rabies vaccine (ARV) schedule. Service satisfaction was high (95.6%). Satisfactory knowledge was significantly associated with education above G.C.E. Ordinary Level ($p<0.001$) and age below 45 years ($p=0.004$). Male sex was significantly associated with ARV completion ($p<0.001$). Service satisfaction was associated with knowledge levels ($p=0.046$).

Conclusions: While most attendees had poor rabies-related knowledge, their treatment-seeking and wound care practices were satisfactory. Service satisfaction was high and was associated with knowledge. Community awareness campaigns and dedicated rabies treatment units are recommended to improve knowledge and outcomes.

Key words: Rabies related knowledge, Practices, Satisfaction, Attendees

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OP 78

Resurgence of measles in post-elimination Sri Lanka: a descriptive analysis of the 2023-2025 outbreak

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Background: Sri Lanka achieved measles elimination status in 2019. However, a re-emergence of cases occurred in mid-2023 initiated among vaccine hesitant individual in Colombo District, subsequent global outbreaks following the disruption of immunization services during the COVID-19 pandemic.

Aims: To describe the epidemiological characteristics of the measles outbreak in Sri Lanka from 2023 to early 2025

Methods: A descriptive analysis was conducted using national measles surveillance data from May 2023 to March 2025.Laboratory confirmed cases were analysed by age group, district, month of onset and measles containing vaccination status. District-specific and age-specific incidence rates (IR) per 100,000 population were calculated and compared between 2023 and 2024. Data analysis was performed using SPSS version 23, applying descriptive statistics including frequencies and percentages.

Results: In 2023, a total of 810 laboratory-confirmed measles cases were reported. The highest district specific IR were reported in Jaffna, Colombo and Gampaha (1.4, 1.3 and 6 per 100,000, respectively) in 2023. In 2024, 298 cases were reported, with highest IRs reported in Galle and Jaffna with IRs 0.75 and 0.35 respectively. The highest age-specific IR was observed among infants aged 7-9 months (135.7/100,000) and among adults aged 26-30 and 21-25 years, it was 10.7 and 5.8 per 100,000, respectively in 2023. The age-specific incidence data from 2023 revealed that, of the 37 cases in the 18-month to 3-year age group, 21 (66%) were unvaccinated, while only 40% exhibited primary vaccine failure following a single dose. Only one case was reported up to April 2025.

Conclusions: The 2023–2025 measles outbreak in Sri Lanka exposed immunity gaps, mainly affecting unvaccinated groups in urban areas, emphasizing the need for ongoing surveillance and vaccination.

Key words: Measles outbreak, Re-emergence, Immunization

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OP 79

Exploration of experiences of cancer patient-informal caregiver dyad in palliative care at Apeksha Hospital, Maharagama, Sri Lanka

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Background: Cancer presents a growing global public health issue, placing significant burdens on both patients and their informal caregivers (ICs). The patient-informal caregiver dyad, comprising a person with advanced cancer and their primary non-professional caregiver, plays a vital role in mutual well-being during palliative care (PC).

Aims: To explore the experiences of patient-informal caregiver dyads in palliative care at Apeksha Hospital, Maharagama, Sri Lanka

Methods: A purposive sample of ten dyads was selected, and in-depth interviews were conducted using a semi-structured interview guide. Data were collected individually during daytime at a convenient place in the ward. All interviews were audio-recorded with consent, transcribed verbatim, and then translated into English. Data were analysed by Graneheim and Lundman's content analysis.

Results: Mean ages of the patients and ICs were 63.9 (SD=5.7) and 42.1 (SD=18.74) years, respectively. Three key themes emerged from patient data: 'difficult experiences', 'challenges-coping mechanisms' and 'healthcare system interaction'. The sub-themes of each key theme included: 'different PC needs' and 'challenges'; 'interrupted family relationships/support' and 'altered social support'; and 'healthcare staff support' and 'information provision', respectively. The majority of patients had interrupted family relationships, while half of the sample perceived changes in social support. Most of the patients were satisfied with healthcare staff support and information provision compared to other subthemes. 'Caregiver needs' and 'expectations' emerged as primary themes for ICs. Their subthemes included 'caregiver roles and responsibilities' and 'different comprehensive needs'; and 'education, self-awareness and healthcare staff support' and 'resilience', respectively. More than half of the ICs had resilience issues, while many ICs experienced the importance of education/self-awareness and obtained higher healthcare support.

Conclusions: All dyads encounter multiple challenges and unmet PC needs. Future research recommends developing culturally appropriate need-based programmes to improve caregiver preparedness and enhance dyadic positive experiences in PC.

Key words: Experiences, Informal caregivers, Cancer patients

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OP 80

Prevalence and associated factors of cancer cachexia among patients with advanced stage cancers attending the National Hospital, Galle, Sri Lanka

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Background: Cancer cachexia is a neglected aspect of cancer nutrition globally, including Sri Lanka. It causes increasing functional impairment, reduces the effectiveness of cancer treatment and increases mortality in cancer patients, necessitating early recognition and management.

Aims: To assess the prevalence and associated factors of cancer cachexia among patients with advanced-stage cancers attending the Oncology Unit at National Hospital, Galle, Sri Lanka

Methods: A cross-sectional study was conducted among randomly selected 320 patients with advanced-stage cancers attending the Oncology Unit of National Hospital, Galle. A validated cachexia staging score was used to detect cancer cachexia. Associated factors for cancer cachexia were identified using multiple logistic regression.

Results: Overall prevalence of cancer cachexia was 75.0% (n=240) (no cachexia 6.6%, pre-cachexia 18.4%, cachexia 53.8% and refractory cachexia 21.2%). Presence of cachexia was significantly associated with frequent missing of main meals (OR=5.0; 95% CI: 2.1, 11.96; p<0.001), experiencing frequent disturbances to food intake (OR=3.43; 95% CI: 1.34, 8.78; p<0.01), use of nutritional formula (OR=6.01; 95% CI: 1.04, 34.59; p=0.045), unsatisfactory physically activity level (OR=3.12; 95% CI: 1.41, 6.94; p=0.005), cancer type (OR=0.3; 95% CI: 0.13, 0.74; p=0.009) and having cancer recurrence (OR=5.98; 95% CI: 1.87, 19.14; p=0.003), but not with socio-economic or treatment-related factors.

Conclusions: A high prevalence of cancer cachexia was observed among cancer patients in this study, which was associated with cancer recurrence, dietary problems and low physical activity, irrespective of socio-economic and treatment-related factors. Incorporating measures for cachexia prevention in the routine management of cancer patients is recommended, particularly in patients at greater risk.

Key words: Prevalence, Cancer cachexia, Associated factors, Cachexia staging score, Sri Lanka

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OP 81

Dietary habits and breast cancer in South Asian women: a systematic review

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Background: Breast cancer is the commonest cancer in women globally. Compared to global incidence, South Asia has lower rates. Unique dietary habits among South Asians might be contributing towards this lower incidence.

Aims: To summarize the evidence on association between dietary habits and breast cancer among South Asian women

Methods: A systematic search was conducted in MEDLINE, EMBASE, CINAHL, Web of Science and Scopus. Women of South Asian origin, aged 18 years and above, and diagnosed with breast cancer comprised the population of interest. Quality was assessed using Joanna Briggs Institute critical appraisal tools. Considering heterogeneity of studies, a narrative synthesis was conducted. PRISMA guidelines were followed in conducting and reporting. The protocol was registered in PROSPERO; CRD42023464682.

Results: Final review included 14 studies (one cross sectional and 13 case control) with 10,686 participants published during 1996-2025. Consumption of tapioca (OR=0.55), vegetables (OR=0.52-0.86), and lentils, peas and beans (OR=0.58-0.88) were reported as protective dietary habits. Consumption of red meat (OR=1.25-2.2), roots and tubers (OR=1.56) and fatty food (OR=1.42-4.9) has increased the risk. Low consumption of fruits was found to be a risk factor (OR=2.5). Conflicting findings were reported for consumption of dairy, poultry and eggs.

Conclusions: Given the variability in exposure assessment, further research is needed to determine the associations between South Asian diet and breast cancer.

Key words: Breast tumours, Nutrition and dietetics, Public health, Risk factors, Systematic review

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OP 82

Body image concerns among women diagnosed with breast cancer in Sri Lanka: a phenomenological approach

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Background: Breast is strongly associated with femininity. Therefore, breast cancer and its treatments cause significant negative implications on a woman's body image, especially in Asian cultures.

Aims: To explore the body image concerns of Sri Lankan women diagnosed with breast cancer using a phenomenological approach

Methods: This qualitative study used purposive sampling to recruit women with breast cancer undergoing treatment at the National Cancer Institute in Sri Lanka. Data were collected using in-depth, semi-structured interviews by trained data collectors until data saturation was reached. Interviews were audio-recorded with informed consent. These were transcribed verbatim and thematically analysed with triangulation. Non-verbal cues were analysed to assess emotional and psychological responses. Ethical approval was granted from the Ethics Research Committee, University of Sri Jayewardenepura, Sri Lanka (REC: 41/24).

Results: Seventeen women aged 33–64 years (mean=50 years; SD=9.13) were interviewed. Four main themes and 19 sub-themes were identified: 'physical concerns' (n=17): general appearance, alopecia, changes in breast, skin, nails, and mouth, and weight fluctuations; 'psychological concerns' (n=12): depression, distress, grief for loss of body parts, strained relationships and negative self-image; 'social concerns' (n=10): social pressure, clothing choices and withdrawal from social and religious activities; and 'coping strategies' (n=11): usage of wigs and scarves, mastectomy undergarments, adjustment of clothing choices and social support.

Conclusions: This study highlights the profound impact of body image concerns, emphasizing the need for holistic cancer care integrating psychological support.

Key words: Breast cancer, Body image, Qualitative, Phenomenological

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OP 83

Cost-Effectiveness of targeted adjuvant therapies in early breast cancer in Sri Lanka: a health system perspective

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Background: Targeted therapies have improved outcomes for breast cancer patients with early stages but often come at high costs. In resource-limited settings like Sri Lanka, assessing their value for money is essential to inform treatment decisions and guide resource allocation.

Aims: To evaluate the cost-effectiveness of five targeted therapies, namely Olaparib, Pembrolizumab, Pertuzumab, Ribociclib and Trastuzumab Emtansine in the curative treatment of early breast cancer in Sri Lanka

Methods: A Markov model was developed from a health system perspective, with input from local clinicians, to estimate incremental costs and quality-adjusted life years for treating women with breast cancer in Sri Lanka. Simulations were conducted in one-year cycles over a 20-year time horizon. Transition probabilities and utilities were from published literature, while cost data were from local sources. Probabilistic sensitivity analysis using Monte Carlo simulation was performed to assess the robustness of the results under uncertainty. A willingness-to-pay threshold of USD 6,700, equivalent to Sri Lanka's per capita GDP, was applied.

Results: Only Olaparib was cost-effective, with an incremental cost-effectiveness ratio of USD 2,078 and a 99% probability of being cost-effective. The other four drugs had a probability of being cost-effective of less than 1%. To achieve at least 50% probability of being cost-effective, the prices of Pembrolizumab, Pertuzumab, Ribociclib and Trastuzumab Emtansine would need to be reduced by approximately 65%, 80%, 60%, and 50%, respectively.

Conclusions: Findings underscore the importance of using cost-effectiveness evidence to guide treatment choices, negotiate drug prices, and prioritise high-value therapies to ensure sustainable access to cancer care in resource-limited settings.

Key words: Cost-effectiveness, Breast cancer, Targeted therapies

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OP 84

Newly diagnosed oral cancer and oral potentially malignant disorder patients in Southern Sri Lanka: sociodemographic, behavioural and clinical patterns

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Background: Oral cancer (ICD-10: C00–C06) remains a major public health burden in Sri Lanka, which ranks among the highest globally in incidence. However, recent evidence on affected individuals is limited, hindering the development of effective early detection and prevention strategies.

Aims: To describe the sociodemographic, behavioral, clinical and health-seeking characteristics of newly diagnosed oral cancer (OCA) and oral potentially malignant disorder (OPMD) patients in Southern Sri Lanka

Methods: A cross-sectional study was conducted from August 2022 to February 2023 among 269 consecutively diagnosed patients at the oral and maxillofacial units of three main hospitals in Southern Sri Lanka. A pre-tested interviewer-administered questionnaire collected data on demographics, risk behaviours, oral health and care-seeking patterns.

Results: The mean age was 59 years (range: 19–85), with 4.5% under 30 years, suggesting possible early-onset trends. Males comprised 73.6%. Nearly half (47.5%) had education only up to G.C.E. Ordinary Level, and 63% reported a monthly income below LKR 15,000. Common occupations included cinnamon processing, farming, estate work and masonry, suggesting potential occupational risks. Betel chewing (79.6%), alcohol use (52.6%) and smoking (30.2%) were prevalent, alongside poor nutrition, inadequate oral hygiene and limited digital health access. Periodontal disease (65%) and untreated caries (57%) were frequent. Leucoplakia (11.9%) and oral submucous fibrosis (11.5%) were the leading OPMDs. The median delay in seeking primary care was 12 weeks, mainly due to symptom misinterpretation and poor awareness.

Conclusions: Findings underscore the need for community-based screening programmes targeting modifiable risks, occupational exposures and care-seeking delays. Policies should prioritize high-risk, underserved groups—including manual labourers and younger individuals—for early diagnosis and improved outcomes.

Key words: Oral cancer, OPMD, Occupational risk, Screening, Care seeking behaviour

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OP 85

Community-based oral cancer screening model utilizing non-health field officers: a quasi-experimental study in Sri Lanka

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Background: Oral cancer remains a major public health concern in Sri Lanka, with an age standardized incidence rate of 23 per 100,000 among males. It accounts for 15% of male cancers, with over 60% of cases diagnosed at advanced stages, reducing five-year survival rate and quality of life of the affected individuals.

Aims: To evaluate the effectiveness and feasibility of a community-based oral cancer screening model engaging non health field officers in early detection in low resource settings in Sri Lanka

Methods: A quasi-experimental study was conducted from April to June 2024 in four divisional secretariat divisions. Using cluster sampling (11 *Grama Niladhari* (GN) divisions per group), 880 adults (440 per group) were enrolled. In the intervention group, trained dental surgeons conducted visual screenings at primary medical care units and mobile clinics. Village development committee members (including *GN* officers, *Samurdhi* officers, economic development officers, and agricultural research & production assistants) identified and mobilized high-risk individuals aged 35–50, scheduled appointments and issued referral forms. The intervention included awareness sessions, structured referrals, and follow-ups. The control group received routine opportunistic screening. Screening coverage, detection yield (proportion of suspicious lesions) and referral rates were compared using Mann-Whitney U tests.

Results: The intervention group had significantly higher screening coverage (87.5% vs. 15.9%), detection yield (17.4% vs. 8.5%) and referral rates (86.5% vs. 83%) ($p<0.001$).

Conclusions: This model significantly enhanced early detection in a short time. Its success stems from engaging non-health field officers for community mobilization and follow-up. The approach is low-cost, scalable, and well-suited for resource-constrained settings.

Key words: Oral cancer screening, Community-based model, Non-health personnel, Early detection, Low-resource settings

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OP 86

Applications of artificial intelligence in vector-borne disease surveillance: a global scoping review

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Background: Vector-borne diseases (VBD) cause significant global morbidity and mortality. Artificial intelligence (AI) offers opportunities for enhancing VBD surveillance, yet its global implementation patterns remain unclear.

Aims: To map global applications of AI in VBD surveillance and identify the technologies used, diseases targeted, data inputs, reported outcomes and key implementation challenges

Methods: A PRISMA-ScR-guided scoping review was conducted. Peer-reviewed studies reporting real-world implementation of AI for VBD surveillance were included. Two independent reviewers screened literature obtained after a systematic search from multiple databases (PubMed, Google Scholar). The data were analysed thematically and categorised by surveillance domain.

Results: The search yielded 44 studies, and 32 were included. Machine learning was most common (n=21; 65.62%), followed by deep learning (n=11; 34.37%)and NLP/chatbots (n=4; 12.5%). Dengue (n=16; 50%) and malaria (n=9; 28.12%) were the most targeted diseases. Applications came from 22 countries, primarily from India, Brazil, Indonesia and Kenya. Studies utilised diverse data inputs: climate (n=18; 56.25%), entomological (n=9; 28.12%), clinical (n=14; 43.75%) and satellite data (n=6; 18.75%). Outcomes included improved predictive accuracy (n=17; 53.12%), timeliness (n=10; 31.25%) and spatial risk mapping (n=12; 37.50%). Surveillance domains included epidemiological (n=22; 68.75%), early warning/risk assessment (n=20; 62.5%), environmental (n=13; 40.62%), entomological (n=8; 25%) and laboratory (n=2; 6.25%). Key challenges were data quality (n=12; 37.5%), lack of technical capacity (n=9; 28.12%) and limited model generalizability (n=7; 21.87%).

Conclusions: AI-driven surveillance systems are increasingly used for global monitoring of VBD and outbreak forecasting. Investment in digital infrastructure and workforce capacity is crucial for expanding evidence-based AI tools in public health.

Keywords: Artificial intelligence, Vector-borne diseases, Disease surveillance, Outbreak prediction, Public health innovation

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POSTER PRESENTATIONS

PP 1

Psychiatrists' perceptions on legalising cannabis and its cultivation in Sri Lanka

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Background: Cannabis is the most used illicit drug in Sri Lanka. Recent years have seen growing advocacy for its legalization, especially citing medicinal and economic purposes. As cannabis is a psychoactive and potentially addictive substance, understanding the perspectives of mental health professionals is essential for evidence-informed policymaking.

Aims: To describe the perceptions of consultant psychiatrists in Sri Lanka regarding the potential legalization of cannabis cultivation

Methods: A descriptive cross-sectional study was conducted among consultant psychiatrists registered with the Sri Lanka College of Psychiatrists. Data were collected via an online self-administered questionnaire disseminated by the college officials during January-February 2024. Multiple online and physical reminders were used to enhance participation. Data were analysed using descriptive statistics.

Results: Out of 150 eligible psychiatrists, 52 responded (response rate of 34.7%). Among them, 69.2% (n=36) expressed concerns about potential negative mental health outcomes of legalization, such as increased prevalence of psychiatric disorders, heightened substance dependence and diminished social functioning. A minority (1.9%) anticipated positive impacts, while 23.1% predicted a mixed effect. Regarding policy preferences, 63.5% opposed legalisation. However, 32.7% supported legalisation of cannabis cultivation specifically for export or medicinal use.

Conclusions: The majority of psychiatrists opposed cannabis legalisation, even only for cultivation purposes, citing adverse mental health implications. Policymakers should adopt a cautious, evidence-based approach to minimize public health risks if considering cannabis as a potential commercial crop in Sri Lanka.

Key words: Cannabis, Legalization, Cultivation, Psychiatrists, Mental health, Public health, Sri Lanka

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PP 2

Patterns of social media use and the association of social media addiction with psychosocial aspects among medical undergraduates in Sri Lanka

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Background: Social media addiction refers to a pattern of excessive and compulsive use of social media platforms that leads to harmful consequences.

Aims: To describe the trends in social media use and the relationship of social media addiction with other psychosocial aspects among undergraduate medical students at the University of Sri Jayewardenepura, Sri Lanka

Methods: A cross-sectional study was conducted among 400 medical undergraduates. The sample was selected using stratified random sampling method. Data were collected through a self-administered printed questionnaire. Social media addiction was measured by the Bergen Social Media Addiction Scale.

Results: The response rate was 100%. Social media addiction was found in 77.3% (n=309) of the respondents. Significant relationships were noted between social media addiction and certain psychosocial variables. Compared with nonaddicts, addicted individuals had greater anxiety ($p<0.05$), lower self-esteem ($p=0.002$), and worse quality sleep ($p=0.006$). There were no significant relationships between social media addiction and sociodemographic factors such as age, gender, ethnicity, year at university or income. Furthermore, the duration of social media usage was significantly related to addiction status ($p<0.05$), indicating that more prolonged usage heightens the risk of developing addictive tendencies.

Conclusions: The research emphasized the necessity of implementing specific interventions aimed at reducing the unfavorable psychosocial consequences of excessive social media usage such as adding a digital wellness module the undergraduate curriculum.

Key words: Social media addiction, Psychosocial aspects, Undergraduate medical students, Cross-sectional study, Anxiety, Self-esteem, Sleep quality

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PP 3

Tobacco industry using illicit cigarette trade to their advantage: examples from Sri Lanka

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Background: Article 5.3 of the Framework Convention on Tobacco Control (FCTC) prohibits government entities from partnering with the tobacco industry. In Sri Lanka, media reports revealed that illicit cigarettes seized by authorities are handed over to the industry for destruction.

Aims: To explore tactics used by the industry to use the concept of illicit cigarette trade to their advantage in Sri Lanka

Methods: Investigative research techniques were used which included a desk review, stakeholder interviews and investigations using the Right to Information Act. Media and reports, research papers, industrial reports and documents published in all three languages in Sri Lanka were identified. The content was analysed using thematic analysis.

Results: Internal documents and annual reports revealed that the tobacco industry claims to liaise with government officials including the Department of Excise of Sri Lanka (EDSL) and Sri Lanka Customs (SLC) via a memorandum of understanding with SLC to destroy illegal cigarettes and a hotline on illicit cigarettes. These 'destructions' happen at the tobacco industry premises with the participation of their officials, SLC officials and sometimes with political leaders. Media reports highlighting the illicit cigarette trade were common around the annual budget period. These were either direct quotes of industry statements, third-party opinion pieces or research reports, claiming that increasing tobacco tax will encourage illicit cigarette trade. A previous minister of health publicly alleged these reports to be sponsored by industry.

Conclusions: Tobacco industry has made attempts to influence and interfere with public opinion, scientific evidence, policy decisions, and control actions related to tobacco using the concept of illicit cigarettes in Sri Lanka. Implementation of FCTC Article 5.3 and improving awareness among media personnel can be helpful in mitigating the situation.

Key words: Tobacco industry, Illicit trade, Framework Convention on Tobacco Control Article 5.3

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PP 4

Knowledge and associated factors regarding dementia among doctors in the Western Province of Sri Lanka

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Background: Sri Lanka records the fastest ageing population in the South Asian Region.

Aims: To explore the level of knowledge on dementia among doctors in Western Province and factors associated with their understanding of dementia care

Methods: A cross-sectional survey was conducted among 184 government-employed doctors in the Western Province. An internationally validated tool, Dementia Knowledge Assessment Scale, was employed to measure knowledge across four subscales: causes and characteristics, communication and behaviour, care considerations, and risks and health promotion. Bivariate and regression analyses were performed to determine the association of socio-demographic and work-related factors with doctors' dementia knowledge scores.

Results: Doctors of the Western Province had a moderate overall understanding of dementia. The doctors excelled in care considerations (mean=79.7; SD=22) but showed gaps in communication and behavioural management (mean=45.27; SD=22.6). Higher levels of knowledge were observed in doctors with postgraduate qualifications (p=0.04) and those working in higher level healthcare institutions (p=0.04). The government doctors who engaged in private healthcare services showed lesser dementia knowledge compared to those who did not (p=0.02).

Conclusions: The study highlights a timely need to integrate dementia education into undergraduate and postgraduate curricula. Additionally, incentivising continuous professional development programmes can bridge the knowledge gaps, particularly in early diagnosis and non-pharmacological management. The findings emphasise the necessity for targeted educational interventions to improve dementia care in Sri Lanka as the country faces an ageing population.

Key Words: Dementia knowledge, Dementia care, Doctors, Dementia Knowledge Assessment Scale

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PP 5

Sun, surf, sustenance, skin: self-reported skin manifestations, associated factors and health seeking behaviour among multi-day fishermen of the Negombo Fishery Harbour, Sri Lanka

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Background: Deep-sea multi-day fishermen experience heightened health associated factors linked with lifestyle onboard.

Aims: To explore the types of skin manifestations, associated factors and their effect on quality of life and related health seeking behaviours among multi-day deep-sea fishermen in the Negombo Fishery Harbour, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 303 consecutively sampled deep-sea fishermen. Data were collected using an interviewer-administered questionnaire, including the Dermatological Life Quality Index (DLQI). Skin manifestations that were considered included rashes, warts, alopecia, itchy skin, etc. Data were analysed utilizing frequencies, proportions, chi-squared test and SND test.

Results: The response rate was 95.71% (n=290). Mean age of the population was 46.4 years (SD=11.83) with a mean career duration of 23.97 years. Skin manifestations were self-reported in 22.76% (n=66) of the fishermen. Of the factors considered, poor personal hygiene (p=0.038) and reduced consumption of leafy greens (p=0.003) had significant associations with the presence of skin manifestations. Half of the fishermen with skin manifestations (n=33) reported that skin disorders had only a small effect on their lives, with the overall mean DLQI score being 5.53 out of 30. Only 56.1% (n=37) were concerned about the abnormality and 40.9% (n=27) had sought medical attention.

Conclusions: A notable percentage of deep-sea multi-day fishermen experienced skin manifestations possibly linked with onboard hygiene and reduced leafy green consumption. Related health-seeking behaviour to evaluate the skin manifestations medically was not optimal. This may be due to the perceived effect on life quality being minor.

Key words: Skin manifestations, Sri Lanka, Fishermen, Personal hygiene, Dermatological Life Quality Index

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PP 6

Beyond the commonly used cereals: exploring the potential of under-utilized cereals to improve nutrition security in Sri Lanka

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Background: Sri Lanka is rich in a diverse range of cereal crops which are grown in limited quantities and remain underutilised by consumers. Promotion of both cultivation and consumption requires bridging the knowledge gap regarding their nutritional composition. Currently, studies analysing the proximate composition of these underutilised cereals are lacking.

Aims: To analyse proximate and fibre composition of selected locally grown underutilised cereals and compare with composition with commonly used rice varieties

Methods: Ten market samples from each type of cereal (six rice varieties and four millet varieties) were collected from districts based on availability in agro-ecological settings and pooled at the Medical Research Institute Nutrition Laboratory. Proximate and dietary fibre composition was determined using Association of Official Analytical Chemists (AOAC) standard methods.

Results: In millet varieties, proximate composition ranged as follows: 5.53-13.62% moisture; 6.66-11.93% crude protein; 1.26-4.02% crude fat; 0.92-2.03% ash; 64.53-79.98% available carbohydrate; 2.24-7.13% total dietary fibre; and 0.59-1.84% water soluble fibre. In rice varieties, 6.53-9.81% moisture; 5.18-8.29% crude protein; 1.26- 3.12% crude fat; 0.38-1.27% ash; 72.95-83.27% available carbohydrate; 1.31-6.15% total dietary fibre; and 0.54-0.85% water-soluble fibre were recorded. Among all varieties analysed, Foxtail millet had the highest protein content (11.93 g/100 g). Highest total dietary fibre (6.81 g/100 g) and water-soluble dietary fibre (1.84/100 g) was found in Little millet. Kodo millet had the lowest energy yield (324.39 kcal/100 g). Protein content and total dietary fibre content were higher in millet varieties compared to commonly used rice varieties.

Conclusions: Since underutilized millet varieties have higher protein and dietary fibre compared to the rice varieties that were analysed, awareness programmes can be implemented to encourage the general public to consume more underutilised millet varieties based on nutritional value including high proteins and dietary fibre.

Key words: Cereals, Underutilized, Rice, Millet

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PP 7

Key health promotional practices for childcare among preschool children in Sri Lanka

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Background: The Sri Lankan health system recognises early childhood as crucial for developing lifelong healthy habits, with preschools playing a vital role.

Aims: To assess the key child welfare health promotion practices among preschool children in Velanai Medical Officer of health (MOH) Area, Sri Lanka

Methods: A community-based cross-sectional study was conducted among 357 randomly selected preschool children and their primary caregivers. Data were collected exclusively from caregivers using a pre-tested, interviewer-administered questionnaire and a data extraction sheet. Observational components were included in the data collection process to assess certain aspects of child well-being, such as signs of physical abuse, which were noted by trained data collectors based on predefined criteria within the questionnaire.

Results: The children's ages ranged from 3 (n=102; 28.6%) to 5 years. Most participants were Sri Lankan Tamil (96.1%) and Hindu (81.0%). Education-wise, 65.0% of caregivers had completed Grades 6-11. Concerning child welfare, 38.7% of children showed inadequate weight gain, 8.7% missed age-appropriate vaccinations, 29.1% lacked adequate medical/dental care, 9.8% had frequent preschool absences and 18.2% appeared apathetic or depressed. Additionally, 58% of children experienced physical abuse. Childcare risks included improper maintenance of child health development record (40.3%), frequent illnesses (39.2%) and not maintaining a 'happy calendar' (96.1%). Regarding early learning, 92.7% of caregivers did not engage in child stimulation activities, 19.3% lacked toys, 9.2% of children had no outdoor games and 89.4% had no activity sheets or reward systems. Further, 7.6% of children felt lonely at home and 7.8% caregivers followed a very strict rules for their children. Dietary concerns were prevalent, with 53.8% of children consuming high-fat fried foods daily, 60.5% drinking sugary beverages daily and 37% lacking adequate whole grains in their diet. Moreover, 65.8% of children did not eat fruits at least three times a week and 30% had insufficient vegetable intake. About one-third of caregivers (30.5%) preferred shop-bought items.

Conclusions: Health promotion practices on selected childcare among preschool children in Velanai MOH area are not satisfactory. These findings emphasise the need for interventions to improve caregiver knowledge, nutrition, and early childhood development.

Key words: Child welfare, Health promotion, Nutrition, Physical abuse, Velanai MOH

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PP 8

Current pattern of service provision for cervical cancer screening and readiness for cervical cancer screening with human papilloma virus deoxyribonucleic acid (HPV DNA) among public health midwives in Colombo, Sri Lanka

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Background: Implementation of the HPV DNA programme is one of the main pillars to eliminate cervical cancer which is implemented through well woman programme.

Aims: To assess the current pattern of service provision for cervical cancer screening, readiness for cervical cancer screening with HPV DNA and associated factors in the medical officer of health (MOH) areas of Colombo Regional Director of Health Services (RDHS) Area, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among all public health midwives (PHMs) (n=408). Data were collected using a self-administered questionnaire, which was designed according to the World Health Organisation Service Availability and Readiness Assessment tool. A scoring system was applied and the cut-off values were decided after literature review and expert opinion. Associations were assessed by chi-squared test at $p<0.05$ significance level.

Results: All participants (100%) stated that their MOH has a cervical cancer screening programme. Eighteen PHMs achieved 80% coverage. About two-thirds of the participants (n=274; 67.2%) were not ready and 134 (32.8%) were ready to provide cervical cancer screening service with HPV DNA. Almost all participants (94.4%) had received training. About 72.8% of the participants had good knowledge. About half of the participants (n=205) had positive attitudes. Significant associations were observed between readiness and G.C.E. Advanced Level school subject ($p=0.008$), total service duration ($p=0.023$), training ($p=0.001$), knowledge ($p<0.001$) and attitudes ($p=0.008$).

Conclusions: Strengthening training programmes, enhancing knowledge and fostering positive attitudes are critical to improve service readiness. Updating the PHM curricula to include comprehensive content on HPV DNA screening is also essential for successful implementation and sustainability of the cervical cancer elimination programme.

Key words: Human papilloma virus, deoxyribose nucleic acid, Public health midwives, Service availability, Readiness assessment, Cervical cancer screening

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PP 9

Farmers' journey after snakebite: a qualitative study from rural Sri Lanka

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Background: Snakebites disproportionately affect rural farming communities in the tropics. The reporting of community perspectives on snakebites is important in optimising healthcare accessibility for high-risk communities.

Aims: To explore the challenges, experiences and perceptions of snakebite victims and their family members of a farming community in Anuradhapura District, Sri Lanka

Methods: The study included Sinhala-speaking farmers of more than 18 years of age admitted to Teaching Hospital, Anuradhapura following snakebite. Semi-structured interviews (30–40 minutes) were conducted with victims and a family member at discharge separately, followed by over the phone follow-ups over 6–8 weeks. Interviews were audio-recorded with consent, transcribed, translated into English and analysed thematically.

Results: Data saturation was achieved after interviewing 13 snakebite victims, revealing six key themes. Patients demonstrated strong trust in allopathic medicine, immediately seeking care at government hospitals to save their lives. Poor road access from farms often resulted in transport problems, hence delayed hospital arrival. While being satisfied with hospital treatment received at the acute stage, victims later consulted native practitioners post-discharge for treatment and reassurance against potential complications, often a free-of-charge service. Although snakebites caused farming disruptions, strong family and community support networks helped mitigate economic losses. Participants recognised snakebites as a part of their daily livelihood.

Conclusions: In Anuradhapura District, farmers initially rely on allopathic care for acute snakebite effects but later turn to traditional treatments to address emotional and psychological recovery. This dual approach potentially alleviates tertiary hospital burdens and may improve patient well-being.

Key words: Snakebites, Snakebite victims, Challenges, Experiences, Perceptions, Anuradhapura

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PP 10

Knowledge and attitudes on basic life support and factors associated with knowledge among undergraduates in a state university of Colombo District, Sri Lanka

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Background: Basic life support (BLS) improves outcomes in medical emergencies. Science undergraduates are ideal for learning BLS and promoting public awareness. However, their BLS knowledge and attitudes remain underexplored.

Aims: To describe the knowledge and attitudes regarding BLS and to determine factors associated with knowledge among science undergraduates in a selected state university in Colombo District, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 127 undergraduates selected from the science faculty of a selected state university, using multistage sampling. Data were collected through a pre-tested, structured, self-administered questionnaire. A score of less than 5.95 out of 12 was taken as 'poor' knowledge of BLS, while a score of 5.95 or more was taken as 'good' knowledge.

Results: Response rate was 90.7%. Majority (74.8%) had poor knowledge regarding BLS. The minimum mark scored by a participant was 0.6 while the maximum mark scored was 9.84. Only 12.6% knew the correct chest compression to artificial breaths ratio. Only 47.2% knew the correct location to apply the compressions, while only 15% knew the correct force to apply. Attitudes regarding BLS were positive, with 89.8% feeling it was necessary to undergo further training. Previous BLS training, job status and students' residential district showed statistically significant associations with BLS knowledge ($p<0.05$).

Conclusion: Although the majority had positive attitudes, knowledge regarding BLS was low. Measures should be taken to further improve the knowledge and to strengthen attitudes, taking the factors associated with knowledge into consideration.

Keywords: Basic life support, Undergraduates, Knowledge, Attitudes

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PP 11

Adolescents' exposure to non-communicable disease risk factors: a photovoice study

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Background: Behaviours and lifestyle choices defined during adolescence predict their future lifestyle choices. There is limited evidence on how adolescents perceive their daily exposure to unhealthy behaviours or promotion to non-communicable disease (NCD) risk factors such as unhealthy diet, physical inactivity, tobacco and alcohol use. Photovoice method allows adolescents to document their real-world exposure both visually and narratively giving a glimpse into their lives.

Aims: To describe the exposure to promotions and behavioural risk factors associated with NCDs, among school going adolescents in Gampaha District, Sri Lanka.

Methods: Sixty G.C.E. Advanced Level student volunteers were recruited from five schools in Gampaha through purposive sampling and were trained to use the photovoice methodology through the KOBO Toolbox application. Photovoice aimed to empower participants to observe and submit photographs and narratives that captured their daily exposure to NCD risk factor related behaviours and promotions over two weeks in June 2024. Thematic analysis was conducted independently by two researchers to identify recurring themes.

Results: A total of 41 (response rate of 68%) participants aged 18-19 years submitted 165 photographs and narratives that included real life photos (87%) and social media screenshots (13%). Majority of the participants were females (63%). Submissions focused on unhealthy food habits (71%), physical inactivity (11%), alcohol (12%) and tobacco use (6.0%). Students identified the consumption of high-fat, high-sugar foods and sedentary behaviours as prominent risk factors. However, terms like 'high-fat' or 'high-sugar' were based on participants' own perceptions, and not via official nutritional assessments. Adolescents' narratives and captures accurately identified behavioural risk factors for NCDs and their possible harmful outcomes.

Conclusions: Adolescents appear more exposed to unhealthy diet and physical inactivity related behaviours but less so to tobacco and alcohol in their day to day lives. The low numbers for tobacco and alcohol exposure might be due to underreporting from stigma. Adolescents' exposure to NCD promotions and risky behaviours is alarming and this study calls for targeted interventions such as school-based awareness programmes to promote healthy lifestyle choices for adolescents and stronger marketing regulations aiming to reduce the future NCD burden.

Key words: Non-communicable diseases, Risk factors, Adolescents

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PP 12

Validation of the Sinhala version of Modified Berlin Questionnaire for Obstructive Sleep Apnoea screening among adults in Sri Lanka: a multicentre study

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Background: Obstructive sleep apnoea (OSA) is the most prevalent sleep-related breathing disorder among adults but often remains undiagnosed. If untreated, it can lead to significant morbidity, including cardiovascular and metabolic disorders. In Sri Lanka, underdiagnosis is linked to the lack of validated screening tools, low awareness among healthcare providers and limited costly access to diagnostic testing. Early identification through effective screening is critical. The modified Berlin Questionnaire (mBQ) has shown promise based on its feasibility and diagnostic utility.

Aims: To validate the Sinhala version of mBQ for OSA screening among adults in Sri Lanka

Methods: The 13-item mBQ was culturally adapted and translated into Sinhala, with judgmental validity ensured by a panel of experts. Criterion validity was evaluated among 89 adults (65 with OSA, 24 without OSA) diagnosed using Level 1 polysomnography at four healthcare institutions: National Hospital of Sri Lanka, Colombo South Teaching Hospital, Chest Clinic Colombo and Kings Private Hospital. Cut-off values were determined using receiver operating characteristic (ROC) curve analysis. Reliability was assessed through internal consistency, while test–retest correlation was evaluated in a subsample of 30 participants with a retest interval of 2-4 weeks.

Results: Mean age of the OSA group was 50.3 years and 42.8 years in the non-OSA group. Among OSA cases, 67.7% were male and among the non-OSA, it was 45.8%. The Sinhala version of mBQ demonstrated a sensitivity of 95.4% (95% CI: 87.5, 98.4%) and specificity of 79.2% (95% CI: 59.5, 90.8%) and an area under curve (AUC) of 0.935. Positive and negative predictive values were 92.5% and 86.4%, respectively. Cronbach's alpha was 0.781 and the test–retest correlation was 0.875.

Conclusions: The Sinhala version of mBQ is a valid and reliable tool for OSA screening and can be incorporated into routine screening use at the primary healthcare level in Sri Lanka.

Key words: Obstructive sleep apnoea, Modified Berlin Questionnaire, Validation, Screening

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PP 13

Factors associated with knowledge and attitudes regarding neonatal jaundice among primigravida mothers in a tertiary care hospital in Colombo, Sri Lanka

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Background: Globally, neonatal jaundice is among the commonest causes of hospital readmissions in the first week of life and contributes significantly to neonatal morbidity and mortality.

Aims: To determine the factors associated with knowledge and attitudes regarding neonatal jaundice among primigravid mothers attending antenatal clinics at a selected tertiary care hospital in Colombo, Sri Lanka

Methods: A descriptive cross-sectional study with an analytical component was conducted among 123 consecutively sampled primigravid mothers visiting antenatal clinics at the Castle Street Hospital for Women. An expert-validated, interviewer-administered questionnaire was utilised for data collection. Scores were calculated for knowledge and attitudes, and mothers were categorised into two groups (cut-off at 50%). Normality of the scores was assessed using Shapiro-Wilk test. Associations were analysed using chi-squared test and Pearson correlation coefficients.

Results: Out of 123 mothers, majority were Sinhala with a mean age of 28. Majority (n=74; 60.2%) displayed poor knowledge, while 87% (n=107) displayed good attitudes regarding neonatal jaundice. Sixty-six percent (n=82) had the misconception that keeping child in sunlight is a suitable treatment. Factors associated with better knowledge ($p<0.05$) were Sinhala ethnicity, ability to speak or read Sinhala, education above G.C.E. Ordinary Level (secondary education), rural residence and receiving advice regarding neonatal jaundice in antenatal classes. A moderate positive linear correlation was found between knowledge and attitudes ($r=0.502$; $p<0.001$).

Conclusions: The majority had good attitudes but poor knowledge regarding neonatal jaundice. Hence, there is a need to improve awareness and correct misconceptions. Incorporating supplementary Tamil instruction during antenatal visits may improve awareness.

Key words: Neonatal jaundice, Mothers

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PP 14

Knowledge, attitudes, practices and associated factors regarding comprehensive sexuality education among teachers of adolescents in mixed schools in Kurunegala Education Division, Sri Lanka

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Background: Comprehensive sexuality education (CSE) is a curriculum-based approach addressing the cognitive, emotional, physical and social aspects of sexuality. Rising rates of teenage pregnancy and sexually transmitted infections globally highlight the need for formal sexuality education. In Sri Lanka, teachers are central to delivering CSE, yet limited research exists on their knowledge, attitudes and practices (KAP).

Aims: To assess KAP and associated factors regarding CSE among science and physical health education teachers in Kurunegala Education Division, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among teachers recruited from all 13 Type 1AB mixed schools in the educational division. Data were collected via a pre-tested, self-administered questionnaire on socio-demographics and KAP related to CSE. Teachers were categorised as having 'good' or 'poor' levels in each domain using mean-based scoring. Descriptive statistics and chi-squared tests were used for analysis.

Results: All 127 teachers participated (100% response). Their mean age was 44.6 years, 72.4% were female, and 54.3% were university graduates. Good knowledge and attitudes were observed in 63.8% and 61.4% respectively, but only 33.1% demonstrated good practices. Female gender was associated with better knowledge ($p=0.028$) and higher education with better practices ($p=0.026$). Knowledge was positively associated with attitudes ($p=0.001$) and attitudes with practices ($p<0.001$).

Conclusions: Although teachers showed good knowledge and attitudes, practices were poor. The Ministry of Education and school administrators should implement targeted training and integrate CSE into teacher education.

Key words: Comprehensive sexuality education, Adolescent, Teachers, Sri Lanka

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PP 15

Perception of quality control programmes among medical officers in secondary care hospitals in the Kalutara District

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Background: Quality control programmes are being initiated within the health system, and a separate directorate, including quality management units, have been developed to monitor and continue quality control activities. However, patient and staff including medical officers, satisfaction and adherence to quality control programmes are still in the process of being improved.

Aims: To assess the perception of medical officers regarding quality control programmes in Sri Lanka

Methods: A qualitative study was conducted in the secondary care hospitals in Kalutara District through semi-structured in-depth interviews. Ten interviews were conducted and selected by convenience sampling from November to December 2024, after getting informed written consent. All the participants were interviewed with a semi-structured questionnaire. All discussions were recorded, and coding and thematic analysis were conducted by the principal investigator. The interviews were conducted until the data saturation point. The member-checking method was conducted to check the trustworthiness of the data.

Results: The main themes identified were the 'need for tailor-made awareness programmes separately for each staff category', 'workload balancing', 'attitudinal change', 'motivation', 'a functioning body at the hospital level', 'method of incentives for quality control activities', 'continuous education' and 'lack of training in undergraduate curricula'. Thinking of patients as our family members and kindness were the major attitudinal changes mentioned in interviews. Corridors were considered unsafe places.

Conclusions: Tailor-made awareness programmes separately for each category of staff, workload balancing, need for attitudinal change are the main themes that should be taken into consideration when planning future quality control activities.

Key words: Quality control activities, Perceptions, Healthcare staff, Sri Lanka

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PP 16

Religious and spiritual practices and association with mental health in middle-aged schoolteachers in Colombo, Sri Lanka

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Background: Mental health disorders are rising globally and in Sri Lanka, with depression peaking between ages 55 and 74 years. Schoolteachers face unique professional and socioeconomic stressors including heavy workload, classroom management and pressure to meet standards, making their mental health crucial. Religious and spiritual practices have long served as coping mechanisms in Sri Lanka. Exploring their role in teachers' mental health could inform interventions and policies, strengthening the educational workforce.

Aims: To describe the religious, spiritual practices and their association with mental health among middle-aged schoolteachers in Colombo Education Zone, Sri Lanka

Methods: An analytical cross-sectional study was conducted among 121 randomly selected schoolteachers using a two-stage cluster sampling technique, where schoolteachers aged 45-60 years were included from three randomly selected schools from national schools and Type 1AB provincial schools. A self-administered questionnaire was used to collect socio-demographic data and information on religious and spiritual practices. A composite religiosity, spirituality score was calculated based on responses. Mental health status was assessed using the General Health Questionnaire-30 (GHQ-30). The GHQ-30 scores were categorized into 'high' and 'low' levels of psychological distress using a cut-off value validated for Sri Lankan population in a previous study. As the composite religiosity, spirituality score demonstrated an approximately normal distribution, t-test was used to compare mean scores between high vs. low psychological distress. Chi-squared test was performed to assess the associations of psychological distress with categorised variables.

Results: All 121 selected teachers responded. The majority were female (n=97; 80.2%) and Buddhist (n=116; 95.9%). Among Buddhists, common practices included daily offering of flowers to the Buddha (n=80; 69.0%) and monthly temple visits (n=71; 61.2%). Psychological distress was present in 23 participants (19.0%). No statistically significant associations were found between religious or spiritual practices and psychological distress ($p>0.05$).

Conclusions: Differences in religious, spiritual practices showed no significant association with the mental health of middle-aged teachers. Their high psychological distress calls for evidence-based interventions to reduce stress and promote well-being in the educational sector, beyond reliance on informal or traditional coping mechanisms.

Keywords: Religious, Spiritual practices, Mental health, Schoolteachers

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PP 17

Bypassing other healthcare institutions to receive first contact care at the National Hospital of Sri Lanka (NHSL) and its contributory factors: patients' perspectives

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Background: Lack of a well-organized referral system in Sri Lanka allows patients to bypass primary and secondary institutions and report to the tertiary care hospitals with conditions that may have been treated at the primary or secondary level. This is one of the reasons for overcrowding, wastage of resources and duplication of services at upper institutions like the NHSL.

Aims: To describe the characteristics of patients seeking care at the outpatient department (OPD) of NHSL and contributory factors for bypassing other healthcare institutions

Methods: A descriptive cross-sectional study was carried out at the OPD of NHSL using an interviewer-administered questionnaire. A total of 120 patients were taken by consecutive sampling, out of which four were non-respondents. Exclusion criteria were tourists, children (<16 years) and ill or psychologically unstable patients who could not give a history. Associations of bypassing with corresponding variables were examined using chi-squared test, and the means of continuous variables like out-of-pocket spending calculated with the application of t test.

Results: Bypassing was seen in 88.3% (n=106) of patients, while 11.7% (n=14) were self-referred from local centres. The most common reason for bypassing was anticipation of better service quality (60.4%). Satisfaction with OPD services was high among the referred (71.4%) and self-referred (92.5%) patients. A strong association was noted between bypassing and perceived quality of service.

Conclusions: Patients' perception that better care is received at the NHSL was the primary cause of bypassing. Improved peripheral quality of care and an effective referral system are in the right direction.

Key words: Receiving first contact care, Hospital bypassing, Sri Lanka

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PP 18

Nutritional status and its associated factors among housewives in Battaramulla Medical Officer of Health (MOH) Area, Sri Lanka

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Background: Optimum nutritional status is essential for health and well-being. Sri Lanka faces a double burden of malnutrition affecting various populations. While traditional interventions focus on vulnerable groups such as children and mothers, housewives, a socially vulnerable group, are often overlooked. Malnutrition in housewives can negatively impact both their health and their families, necessitating targeted attention.

Aims: To describe the nutritional status and identify the factors associated with it among housewives aged 18-49 years in the Battaramulla MOH Area in Colombo, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 123 housewives. Two public health midwife (PHM) areas were selected randomly, and consecutive households were sampled from purposively selected lanes. The socio-demographic characteristics, nutritional literacy, wealth index, physical activity and food security data were collected through a self-administered questionnaire. Anthropometric measurements such as body mass index (BMI), waist circumference and mid-upper arm circumference (MUAC) were recorded. Data were analysed using chi-squared tests.

Results: The study found that 25.2% of the participants were obese and 41.5% were overweight. Abdominal obesity (waist circumference >80 cm) was present in 70.7%, while 69.1% had high MUAC. Overall nutritional literacy was satisfactory in 77.2%. Significant Associations were observed between food security and MUAC, as well as between age and waist circumference ($p<0.05$).

Conclusions: High levels of both generalised and central obesity were found. This study suggests that malnutrition among housewives is not solely due to poor knowledge, economic status or inactivity. More complex unexplored dietary behaviours may play a role and warrant further investigation.

Key words: Malnutrition, Housewives, Sri Lanka

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PP 19

Knowledge and practices of management of fever in children and its associated factors among primary caregivers in selected medical officer of health (MOH) areas in Colombo, Sri Lanka

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Background: Fever is common among children and frequently prompts medical consultations. Effective home management, guided by caregivers' knowledge and practices, is essential to prevent complications.

Aims: To assess the knowledge and practices of fever management and associated factors among primary caregivers visiting child welfare clinics in selected MOH areas in Colombo, Sri Lanka

Methods: A descriptive cross-sectional analytical study was conducted among 150 primary caregivers of children aged 6 months to 5 years, selected through systematic sampling from three purposively chosen MOH areas. Clinics within each MOH area were selected based on clinic schedules and accessibility. An interviewer-administered questionnaire evaluated knowledge and practices regarding identification, home management and healthcare seeking during fever episodes. Data were analysed using SPSS 27.0, where $p<0.05$ considered significant.

Results: The mean caregiver age was 32.05 years (SD=9.02); 90% were parents and 51.3% were unemployed. While 56% had above-fair knowledge about fever, 82% believed fever was harmful. Though 66.7% identified thermometers as ideal for measuring temperature, 85.3% relied on warm touch, and a few knew the correct measurement sites. Fever management was good in 47.3%. Nearly all (98.7%) recognized paracetamol as a fever reducer, but only 60.7% reported correct dosing, with 4% giving overdoses. Thermometer use was limited (48.7%), 34.7% were digital and 86.3% using at axilla. Paracetamol use (95.3%) and tepid sponging (77.3%) were common. Most sought care within 24 hours (52.7%), primarily from general practitioners (69.3%) due to fear of illness worsening (83.3%). Poor knowledge and practices were significantly associated with low education, unemployment, low income, non-parent status, financial difficulty and fear of medical settings (all $p<0.01$). Knowledge and practice levels were significantly correlated ($\chi^2=15.19$; $p<0.01$).

Conclusions: Despite fair knowledge levels, malpractices remained. Most caregivers knew paracetamol reduces fever, but knowledge of correct dosing and thermometer use was suboptimal. Paracetamol use and tepid sponging were common, though dosing errors, treatment delays and low thermometer use persisted in practice.

Key words: Fever in children, Knowledge, Practices, Caregivers

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PP 20

Appropriateness of antiplatelet prescriptions and its unwarranted impact on institutional pharmaceutical budget in a primary healthcare setting in Sri Lanka

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Background: Recent guideline updates have refined the indications for antiplatelet therapy to optimise patient care. Inappropriate prescriptions of antiplatelets are a health risk for patients and cause unnecessary financial burden on the healthcare system.

Aims: To assess the appropriateness of antiplatelet prescriptions and their unwarranted impact on the institutional pharmaceutical budget in a primary healthcare setting in Sri Lanka

Methods: A descriptive, cross-sectional study was conducted in the outpatient medical clinic of a primary medical care unit (PMCU) in Sri Lanka. Records of all patients followed up from January to December 2023 were evaluated. Records of patients lost to follow up, deceased and transferred/discharged from the clinic during the study period were excluded. Data extraction sheets were used to extract data from patient records, annual pharmaceutical estimate, stock transfer vouchers and drug stores register. The 2019 American Heart Association/American College of Cardiology guidelines was used as the reference.

Results: Sixty one out of 234 clinic patients were on antiplatelet therapy. Of those on antiplatelets, 80% were females. Median age was 74 years and 90% were ≥65 years. Most (60.7%) were on antiplatelets for secondary prevention of cardiovascular disease. A 57.4% was on inappropriate prescriptions, mainly for primary prevention (68.6%). Nearly 53% of the budget allocated for antiplatelets was spent on inappropriate prescriptions.

Conclusions: Gaps in translating guidelines to practice and lack of medication review may have caused inappropriate prescription of antiplatelet agents placing patients at undue health risks while posing a financial risk to the healthcare system.

Key words: Antiplatelet therapy, Medication review, Guideline recommendations, High bleeding risk

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PP 21

Decoding milk powder advertisements: are they propagating myths?

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Background: In Sri Lanka, while the Food Based Dietary Guidelines recommend consuming fresh milk or its fermented products, milk powder has become a popular choice among many. It is widely advertised, often presented as essential for good health and nutrition. It is important to understand how milk powder is promoted on mass media, focusing on the advertising patterns, tactics and the health claims that are being made to determine myths, if any, are propagated around the benefits of milk powder via their advertisements.

Aims: To describe the content of milk powder advertisements on social media and television in terms of direct and indirect messages, visual elements and target audience, the tactics used to popularize milk powder and health-related myths propagated

Methods: A qualitative design was used. We analysed 474 Facebook advertisements posted during a 12-month period from 10 brands purposively selected based on the follower count and posting frequency, and 20 television advertisements telecast during two weeks in five channels selected based on the View Score of channels. The audio and visual content extracted through structured sheets were analysed using thematic analysis.

Results: The advertisements featured celebrating special days, nutritional value of milk powder and event sponsorships. The predominant tones were festive, motivational, and informative, emphasizing positivity and nutritional information. Visual elements consistently featured nutrient components, family well-being, and brand-specific colours and logos. The advertisements aimed at major ethnic and religious groups and women. Key marketing tactics included health-related claims and audience engagement in Facebook, with a strong emphasis on nutritional benefits. Most direct and indirect health claims emphasising the nutritional value of milk powder were misleading.

Conclusions: Milk powder advertisements contained misleading information about nutritional value. They featured event sponsorships, promoting use and manufacturers' image. The public health stakeholders should pay more attention and employ stricter measures to regulate them.

Key words: Milk powder, Advertisements, Tactics, Myths

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PP 22

The Sinhala version of S-EPOCH Measure to assess adolescent well-being: cultural adaptation and validation for Sri Lanka

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Background: The Engagement, Perseverance, Optimism, Connectedness and Happiness (EPOCH) Measure is a newly developed scale extending from the Positive Emotion, Engagement, Relationships, Meaning and Accomplishment Model of adults to evaluate the adolescent well-being; engagement, perseverance, optimism, connectedness and happiness that contribute to positive developmental and flourishing outcomes of hedonic and eudemonic well-being of adolescents.

Aims: To culturally adapt and validate the EPOCH Measure on adolescent well-being in Sri Lanka

Methods: Cultural adaptation and judgmental validation of the Sinhala translated S-EPOCH was done with an expert panel by assessing item impact score, scale's content validity ratio (S-CVR) and the scale's content validity index (S-CVI), and no modification was needed. The S-EPOCH underwent a cross-sectional validation study in a school setting of Kekirawa Education Zone from May to August 2024 with a stratified simple random sample of 262 Sinhala-fluent adolescents aged 10-18 years. Confirmatory factor analysis (CFA) was conducted with the five-factor model, higher-order model and one-factor model by using SPSS AMOS 26. Reliability was evaluated with internal consistency.

Results: Judgmental validity of well-adapted S-EPOCH was ensured with the item impact score above 1.5, the S-CVR of 0.89 and the S-CVI of 0.93. The good model fit of CFA was best supported with a five-factor, inter-correlated model with GFI of 0.906, SRMR of 0.031, NNFI of 0.919, TLI of 0.903, CFI of 0.963 and RMSEA of 0.054, compared to the higher-order model. Common method bias was eliminated with the one-factor model. Cronbach's α, above 0.84, ensured good internal consistency of all five EPOCH subscales and the total scale.

Conclusions: The S-EPOCH is a culturally well-adapted instrument with a good model fit, suitable for assessing multiple dimensions of adolescent well-being in Sri Lanka.

Key words: Adolescents' well-being, S-EPOCH Measure, Cultural adaptation and validation, Sri Lanka

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PP 23

Knowledge, attitudes and awareness regarding cardiopulmonary resuscitation among second year undergraduate students in the Faculty of Social Sciences and Humanities of Rajarata University of Sri Lanka

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Background: Cardiopulmonary resuscitation (CPR) is an emergency life-saving procedure performed immediately on a person who develops cardiac arrest with unconsciousness and found to be pulseless. It is an essential skill everyone should possess. Studies conducted on knowledge and awareness regarding CPR among young adults is scarce.

Aims: To assess knowledge, attitudes and awareness regarding cardiopulmonary resuscitation among second year undergraduate students in the Faculty of Social Sciences and Humanities (FSSH) of Rajarata University of Sri Lanka (RUSL)

Methods: A descriptive cross-sectional study was conducted among all consenting second year undergraduates (N=450). Main components of the questionnaire included consent, questions about knowledge, awareness attitude and case scenarios. Data were analysed using SPSS statistical software.

Results: One hundred and ninety-three students responded, with 45 (23.3%) being males. About 80.3% students had heard about CPR. Knowledge and awareness (p=0.353) and attitudes (p=0.098) regarding CPR were not significantly different between male and female students, and also between students from rural and urban home areas (p=0.96). Only 60 (31.1%) were able to correctly select the sequence of CPR procedure. Out of the 60 students who were confident about their CPR knowledge, 47 (78.3%) were not confident to perform it, from which their attitude was assessed. One hundred and twenty-six (65.3%) students suggested that formal training on CPR is mandatory during school education.

Conclusions: Though the majority had heard of the CPR procedure, knowledge on CPR and confidence to perform it were not satisfactory among university students. Their knowledge, attitudes and awareness on CPR were not affected by gender or area of residence. Including CPR training in school education is a necessity.

Key words: Awareness, Cardiopulmonary resuscitation, Undergraduates

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PP 24

An audit of caesarean section rates using the Robson Ten Group Classification System and the impact of labour induction and maternal hyperglycaemia on caesarean section risk at a tertiary care hospital in Sri Lanka

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Background: Robson's Ten Group Classification (RTG) is recommended by the WHO for evaluating caesarean section (CS) rates, according to parity, number of previous caesarean sections, onset of labour, number of foetuses, gestational age, foetal lie and presentation. Groups 1 and 2 include nulliparous women with a singleton, cephalic pregnancy at term; Group 1 comprises those who enter spontaneous labour, while Group 2 includes those who undergo labour induction (2A) or are delivered by caesarean section before labour (2B). Groups 3 and 4 include multiparous women without a previous caesarean section, with a singleton, cephalic pregnancy at term; Group 3 includes those in spontaneous labour, whereas Group 4 includes those who undergo labour induction (4A) or are delivered by caesarean section before labour (4B). Group 5 consists of all multiparous women with at least one previous caesarean section, with a singleton, cephalic pregnancy at term.

Aims: To evaluate the impact of labour induction and maternal glycaemic status on caesarean section rates using the RTG in Sri Lanka

Methods: The audit was conducted in two wards at the Castle Street Hospital for Women, Colombo. A cross-sectional study design was used with retrospective data extraction from bed head tickets. Data were analysed using SPSS version 29. The chi-squared test was used mainly to assess associations, with $p<0.05$ considered statistically significant.

Results: Among 241 pregnancies, the overall CS rate was 37.8%. The highest proportion of women were in Robson's Group 1 (26.6%). The CS rates in Groups 2B, 4B, 5, 6, 7, 8, 9 and 10 were 100%, 100%, 90.9%, 100%, 100%, 66.7%, 100% and 28.6%, respectively. Group 1 had a low CS rate (14.1%) compared to Group 2A (46.8%). Similarly, Group 3 had a low CS rate (4%) while Group 4A showed a significantly higher rate (38.1%; $p<0.05$). According to these results, induction of labour was associated with higher CS rates. Hyperglycaemia in pregnancy (HGIP) was observed in 19.1% of the study population, with 73.7% diagnosed with gestational diabetes mellitus. The CS rates between hyperglycaemic and non-hyperglycaemic mothers within Groups 1, 2A, 3, 4A and 5 were compared, where most participants were clustered (93.4%). However, the differences were not significant ($p>0.05$).

Conclusions: Rising caesarean section rate is a medical concern in this millennium. Induction of labour was found to increase the risk of CS. Having HGIP did not show a significant impact on CS rate. This may be due to the small study sample size which warrants future studies on a larger scale.

Key words: Caesarean section rates, Robson Ten Group Classification, Labour induction, Hyperglycaemia, Sri Lanka

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PP 25

Prevalence and associated factors of nutritional problems in children aged 2-5 years with autism spectrum disorder: a comparison with national nutritional data

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Background: Autism spectrum disorder (ASD) is a neurodevelopmental condition with an increasing prevalence. Individuals with ASD are nutritionally vulnerable due to selective and abnormal eating patterns that can lead to nutritional problems.

Aims: To determine the prevalence of nutritional problems among ASD children, compare with national figures and explore the effect of the level of autism and gender on their nutritional status

Methods: Data were collected at the Ayati Center, Ragama, Sri Lanka from May 2023 to September 2023. The study included all children already diagnosed with ASD aged 2-5 years, excluding those with other neurodevelopmental disorders or chronic medical illnesses. The sample size was calculated using Cochran's formula. National Nutrition Month 2023 statistics were used for comparison with national data. A cross-sectional analytical study design was employed. Anthropometric assessments were conducted using standard Sri Lankan growth charts. Each nutritional problem was analysed separately. Chi-squared tests were applied to assess relationships at p-value of <0.05.

Results: Out of 103 selected children, the majority were male (65%). The most common nutritional concern was stunting (15.5%), followed by underweight (13.6%), moderate acute malnutrition (MAM) (9.7%), overweight (1.9%), obesity (1%) and severe acute malnutrition (SAM) (1%). Notably, 70.9% of the children did not present with any nutritional concern. When compared with national data for the same age group and year, no significant differences were observed in the prevalence of underweight, wasting (including both SAM and MAM) or stunting (p>0.05). However, the combined prevalence of overweight and obesity was significantly higher among children with ASD (2.9%) compared to the national prevalence (0.46%) (p=0.0002). Most children in the study were classified as ASD Level II (49.5%) followed by Level I (31.1%). No significant association was found between the severity level of ASD and the identified nutritional problems. Additionally, there was no significant relationship between nutritional status and gender (p>0.05).

Conclusions: Children with ASD, due to their restricted and selective eating patterns, may have a preference for foods high in fat and sugar, which can contribute to overweight and obesity. Conversely, limited dietary variety and minimal intake may predispose them to chronic undernutrition, as reflected by stunting. Further large-scale studies are recommended to better explore the relationship between eating patterns and nutritional status in children with ASD.

Key words: Autism spectrum disorder, Nutritional problems, Children under five, Sri Lanka

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PP 26

Allopathy through Ayurvedic eyes: understanding attitudes towards western medicine among elderly ayurvedic patients

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Background: Allopathy and Ayurveda are systems that largely use evidence-based and traditional methods, respectively. In Sri Lanka, a large proportion of the population resort to Ayurveda treatment, despite the safety and scientific backing of allopathy. This health-seeking behaviour is affected by the attitudes towards allopathy, especially among the elderly.

Aims: To describe the attitudes towards allopathy and associated factors in elderly patients attending Ayurvedic treatment centres in Colombo District, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among patients aged 60 years and above at selected Ayurvedic treatment centres in Colombo District. Severely ill and unresponsive patients were excluded. Three centres and 240 patients were selected via convenience and systematic random sampling, respectively. An interviewer-administered questionnaire collected patient details, attitudes and associated factors. Significance level was set at 5%.

Results: A larger proportion had positive attitudes towards allopathy (55.3%). Allopathy was preferred in emergencies (84.1%), seen as easier to follow (80.5%), faster (82.5%) but costlier (72.1%). Allopathic doctors were viewed as less helpful (48.7%). Females had statistically significant more positive attitudes ($p=0.005$). Negative attitudes were associated with family and Ayurvedic workers discouraging allopathy. Majority had moderate knowledge on allopathy (61.7%), while good knowledge was significantly associated with positive attitudes ($p<0.001$). Using allopathic drugs also correlated with positive attitudes ($p=0.008$).

Conclusions: Majority of attitudes towards allopathy were positive, but negative views persisted. Improving knowledge on allopathy, such as through awareness programmes and proper patient education during treatment could improve attitudes. Improving overall patient experience and satisfaction when being treated for chronic illnesses and when using allopathic drugs is recommended to enhance attitudes on allopathy.

Key words: Allopathic medicine, Ayurveda, Elderly

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PP 27

Hedonic and eudemonic well-being of school-aged adolescents in resource-limited settings, Sri Lanka

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Background: The well-being of school-aged adolescents is a crucial determinant of future health, academic success and social development. Psychological well-being is often conceptualized through two primary concepts: hedonic well-being which emphasizes happiness and life satisfaction, and eudaimonic well-being, which focuses on meaning, personal growth, and self-actualization. The five domains of EPOCH Measure (engagement, perseverance, optimism, connectedness and happiness) support in measuring both concepts.

Aims: To describe the hedonic and eudemonic well-being of school-aged adolescents and the gender differences in well-being of adolescents in resource-limited settings in Sri Lanka

Methods: In 2024, a descriptive cross-sectional study was conducted in a school setting of Kekirawa Education Zone with 378 school-aged adolescents, selected by a stratified sampling technique. The hedonic and eudemonic well-being was measured by using the translated and validated Sinhala EPOCH measure. The well-being profile was described by using mean scores. The significance of gender difference in well-being was assessed by using independent t-test at p=0.05.

Results: The mean age of school-aged adolescents was 13.65 (SD=2.9) years. Most were Sinhala (89.3%) and Buddhist (87.2%). The dominated gender was females (58.1%). Mean values of engagement (3.6; SD=0.7), perseverance (4.2; SD=0.6), optimism (4.3; SD=0.6), connectedness (4.1; SD=0.8) and happiness (4.3; SD=0.6) demonstrated the good hedonic and eudemonic well-being. Females showed higher connectedness than males (p=0.011), but no significant difference was demonstrated in other domains.

Conclusions: Overall, good hedonic and eudemonic well-being was good among the school-aged adolescents in limited resource settings. Connectedness among male adolescents was low. Prioritizing fostering connectedness among males may be beneficial.

Key words: Hedonic well-being, Eudemonic well-being, Schooling adolescents

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PP 28

Impact of maternal occupation on infant feeding practices in a semi-urban setting: a cross-sectional study in Gothatuwa Medical Officer of Health (MOH) Area

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Background: Exclusive breastfeeding during the first six months is considered an optimal feeding practice. Understanding its trends and influencing factors in a mixed urban and semi-urban MOH area will helps to develop effective strategies to promote breastfeeding in a broader Sri Lankan population.

Aims: To assess the association between maternal occupation, complications at delivery and antenatal maternal education with exclusive breastfeeding in Gothatuwa MOH Area, Sri Lanka

Methods: A cross-sectional analytical study was conducted in October 2024 among 101 postnatal mothers of infants aged 0–6 months, selected through consecutive sampling at MOH clinics. Data were collected using structured, interviewer-administered questionnaires. Analysis was performed using chi-squared test at $p<0.05$ significance level. 'Expressed milk' referred to breast milk collected by hand or pump and 'non-freezer compartment' referred to storage inside the refrigerator but outside the freezer.

Results: Among the mothers, 79.2% were under 35 years, 18.8% had full-time employment and 37.5% worked more than five days a week. Exclusive breastfeeding was practised by 88.6%; 9.8% introduced mixed feeding; and 26.3% used infant formula without medical advice. Expressed breastfeeding was practised by 17.8%. Maternal employment was significantly associated with non-exclusive breastfeeding ($p=0.006$), formulae use ($p=0.007$) and early complementary feeding ($p=0.042$).

Conclusions: Despite high rates of exclusive breastfeeding, maternal employment negatively impacted feeding practices. Workplace support and improved antenatal education are crucial to sustain optimal breast feeding.

Key words: Exclusive breastfeeding, Feeding for first 6-months, Maternal occupation, Infant feeding

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PP 29

Leadership Competency Assessment Tool (LCAT) for the Sri Lankan health system: adaptation and validation Study

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Background: Leadership competency is pivotal in shaping organizational success and driving the performance of leaders. Strong leadership is essential for the sustainability of the healthcare system. The Leadership Competency Framework (LCF), NHS, UK, was developed with seven domains to assess leadership competency.

Aims: To adapt and validate the LCF as a tool for the Sri Lankan health system

Methods: The LCF was adapted to develop the Leadership Competency Assessment Tool (LCAT) with six domains, including demonstrating personal qualities, working with others, managing services, improving services, setting directions and creating vision. It underwent a cross-sectional validation with a census of an entire group of 212 Grade I and II medical officers in Colombo South Teaching Hospital. The psychometric properties were assessed with exploratory (EFA) and confirmatory (CFA) factor analyses. The six-factor model and higher-order models were conducted with SPSS AMOS 21. Internal consistency and test-retest ensured reliability.

Results: Experts ensured the judgmental validity of culturally adapted LCAT. The factor loading values more than 0.4 of EFA with model fit of CMIN/df of 1.687, RMR of 0.059, GFI of 0.799, CFI of 0.897 and RMSEA of 0.059. The CFA ensured the 25 items and six-factor model as the best fitting model. The reliability was ensured with Cronbach's alpha and intra-class correlation coefficient values above 0.7.

Conclusions: The LCAT is culturally relevant and suitable to assess the leadership competency in the Sri Lankan health system.

Key words: Leadership Competency Assessment Tool, Adaptation and validation, Sri Lankan Health System

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PP 30

Patient satisfaction with hospital diet and its associated factors at the National Hospital of Sri Lanka

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Background: Hospital diet plays a crucial role in patient management, as a well-balanced and nutritious diet has the potential to complement patient recovery. All government hospitals provide free hospital diet, yet patient satisfaction and consumption levels are not regularly monitored.

Aims: To assess patient satisfaction with hospital diet and its associated factors at the National Hospital of Sri Lanka, Colombo

Methods: A descriptive cross-sectional study was conducted among inward patents who consumed either a normal or diabetic diet. The sample was selected using cluster sampling, in which patients were randomly selected within each cluster. An interviewer-administered questionnaire was used to assess patient satisfaction and associated factors. Consumption was assessed using a 6-point visual scale ranging from 5 to 0 for eaten percentages of 100%, 75%, 50%, 25%, 5% and 0%, comparing pre- and post-consumption images of plate. Data were analysed using descriptive statistics and chi-squared test.

Results: The study included 269 participants (response rate of 99%). The majority (71.7%) consumed a normal non-vegetarian hospital diet, while 20.4% were on diabetic diet. All three meals were consumed by 58.4%, while 20.1% consumed only lunch. Majority (75.5%) of patients said that the amount was adequate, 96.3% said that food was not too cold and 91.4% said that food adhered to cultural preferences, while 62.8% did not like the taste. Majority (69%) were satisfied with the overall quality of meals. Entire meal was consumed by 47.9%, while 11.9% consumed below 25%. Patient satisfaction was significantly associated with the consumption level and appetite of the patient ($p<0.001$), while meal type, inability to feed alone and duration of hospital stay were not significant ($p>0.05$).

Conclusions: Frequent monitoring of patient satisfaction and consumption of hospital diet is necessary to improve quality of hospital diet and optimize benefits. Special attention is needed to improve taste of the meals offered.

Key words: Hospital diet, Patient satisfaction, Wastage

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PP 31

Hospital admissions of youth with bronchial asthma in Sri Lanka: a national cross-sectional study

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Background: Bronchial asthma (BA) disability burden is high in low- and middle-income countries. Less is known about BA among the youth (15-29 years of age) despite the higher prevalence of childhood BA in Sri Lanka.

Aims: To describe the hospital admissions for BA among Sri Lankan youth from 2017 to 2022

Methods: This study utilized secondary data classified under ICD-10 from the electronic indoor morbidity and mortality register (eIMMR), which has captured nearly 90% of all hospital admissions in Sri Lanka since 2017. All J45-6 codes among 15–29-year-old persons were included. The case fatality rate (CFR) was determined by calculating the proportion of BA deaths among total admissions due to BA. The analysis was conducted using SPSS version 25 and Excel 2019, employing a two-tailed Z test to determine significance at p-value less than 0.05.

Results: An average of 13,753 (male=5,962; female=7,791) were admitted to hospitals with BA island-wide, with 271.3 per 100,000 population. The proportion of youth among total admissions with BA showed a statistically significant increase from 9.9% in 2017 to 11.1% in 2022 ($Z=-10.46$; $p<0.001$). In both 2017 and 2022, female admissions were significantly higher than male admissions (2017: $Z=-34.53$; $p<0.001$; 2022: $Z=-31.21$; $p<0.001$), which flags for gender sensitive primary care. Even though the case fatality rate (CFR) declined from 0.39 to 0.37 for all age groups ($Z=1.2$; $p>0.05$) and from 0.06 to 0.03 for youth ($Z=1.02$; $p>0.05$) between 2017 and 2022, it was not statistically significant.

Conclusions: The annual hospital admission rate for BA among youth in Sri Lanka is notably higher than in Europe and other Asian countries, with a pronounced predominance of female admissions. Strengthening preventive and primary healthcare services is imperative to effectively address this issue.

Key words: Asthma, Youth, Hospital admissions, Low- and middle-income countries, Females

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PP 32

Perceived diet barriers and associated factors among patients with type 2 diabetes at Base Hospital, Galgamuwa, Sri Lanka

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Background: For successful dietary management in type 2 diabetes mellitus, patients should have good dietary adherence. However, diet barriers can prevent them from adhering to the recommended diet. There are many factors that can affect these barriers.

Aims: To assess the perceived diet barriers and associated factors among patients with type 2 diabetes attending the diabetic clinic at Base Hospital, Galgamuwa

Methods: A descriptive cross-sectional study was carried out in the diabetic clinic at Base Hospital, Galgamuwa. A sample of 422 patients who attended the clinic in 2021 was selected using systematic sampling method. A validated interviewer-administered questionnaire with a scoring system was used for data collection. Total scores were calculated for perceived diet barriers. Based on cut-off values, the level of diet barriers was categorized as 'high' and 'low'. Multiple logistic regression was used to assess associations between dependent and independent variables.

Results: The response rate was 97.1% (n=410). A majority had low level of diet barriers (n=263; 64.1%). Ethnicity (adjusted odds ratio (AOR)=2.37; 95% CI: 1.27, 4.43), occupation (AOR=3.59; 95% CI: 2.07, 6.22), income (AO=0.61; 95% CI: 0.38, 0.98), dietary knowledge (AOR=2.12; 95% CI: 1.28, 3.52) and attitudes (AOR=0.52; 95% CI: 0.33, 0.82) were significantly associated with 'high' level of perceived diet barriers.

Conclusions: Majority of the participants had diet barriers to some extent. There can be uncaptured barriers that need to be explored further through qualitative studies. The findings reveal some gaps in the health care services related to type 2 diabetes mellitus in hospital settings. Interventions should address these gaps adequately and improve the quality of the health care services provided.

Key words: Diet barriers, Perceived barriers, Perceived diet barriers, Type 2 diabetes mellitus

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PP 33

Maternal death talk: key barriers in managing maternal near-miss events and actionable recommendations on improving maternal healthcare based on the perception and experience of health care workers in a tertiary care hospital in Sri Lanka

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Background: Maternal healthcare is a critical component of public health. The maternal mortality ratio has stagnated over the last few years. Maternal near-miss (i.e. a woman who nearly died but survived a complication that occurred during pregnancy, childbirth or within 42 days of termination of pregnancy) provides valuable information, which helps in implementing strategies to prevent maternal death.

Aims: To explore key barriers to managing maternal near-miss events for improving maternal healthcare based on the health staff's perception and experience in a tertiary care hospital in Sri Lanka

Methods: A qualitative study was conducted in De Soysa Hospital for Women during 2025. In-depth interviews were conducted with a purposive sample of 17 healthcare providers until data saturation. Translated transcriptions and audio recordings were transcribed and used as qualitative data. Coding, within-case and cross-case analyses were done by using NVivo 14. Sibling codes and child codes were identified and visualized with a mind map. The patterns and themes were identified.

Results: Three doctors, 4 sisters, 5 nurses and 5 midwives were included. Mean years of obstetric care experience was 7.6 years (SD=1.7). The majority were females. The average number of near misses managed was six. 'Shortage of trained healthcare workers', 'lack of teamwork', 'gap in knowledge update', 'poor recording and notification', 'inadequate infrastructure', 'socio-cultural factors influencing healthcare-seeking behaviour', 'major gaps in maternal/family members' education and awareness on complicated pregnancy' and 'communication gap' emerged as key themes.

Conclusions: The barriers explored were rational and a multi-faceted approach is needed to mitigate maternal near misses in Sri Lanka. Policy reforms, targeted interventions, and support for maternal morbidity and mortality surveillance are recommended.

Key words: Maternal death talk, Actionable recommendations for improving maternal healthcare. Maternal Near Miss

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PP 34

Self-esteem and its association with sociodemographic factors and quality of life among institutionalized older adults in Colombo District, Sri Lanka

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Background: Population aging is a significant global trend. Aging process negatively impacts self-esteem and overall quality of life, which reflect overall well-being. In institutionalized settings, these problems are poorly identified and addressed.

Aims: To determine the level of self-esteem and its associations with socio-demographic factors and quality of life among institutionalized older adults in Colombo District, Sri Lanka

Methods: A descriptive cross-sectional study was conducted with the participation of 400 older adults residing in randomly selected residential care facility homes in Colombo District. Validated Rosenberg Scale of Self-Esteem (RSSE) (low: 0–20; moderate: 21–30; high: 31–40) and the WHO Quality of Life BREF questionnaire were administered. Descriptive statistics, chi-squared test and Pearson correlation were performed using SPSS 26. Statistical significance was taken at <0.05.

Results: The majority (61.0 %) were females. Mean age of the sample was 73.63 (SD=6.57) years. Mean score for RSSE was 25.7 (SD=4.86). Of the participants, 39.0%, 38.5% and 22.5% reported low, moderate and high levels of self-esteem, respectively. There were significant associations of low self-esteem with advancing age (p=0.039), having comorbidities (p=0.027) and being married (p=0.015). Further, there were significantly positive correlations of self-esteem with physical (r=0.252; p<0.001), psychological (r=0.171; p=0.003) and environmental (r=0.268; p<0.001) domains of quality of life.

Conclusions: A significant proportion of institutionalized older adults reported low to medium self-esteem. Individuals with low self-esteem reported low scores for domains related to quality of life. This emphasizes the importance of interventions focusing on self-esteem to improve their overall well-being.

Key words: Self-esteem, Quality of Life, Institutionalized, Older adults, Sri Lanka

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PP 35

Adapted practices in government primary healthcare institutes in developing resilience

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Background: Sri Lankan health system had passed through turbulences like COVID-19 pandemic, economic crisis and civil unrest throughout last few years. Therefore, it is important to identify specific practices implemented by health institutes to withstand these stressors.

Aims: To explore practices adapted by primary health institutes in developing resilience in Southern Province of Sri Lanka

Methods: A descriptive cross-sectional survey was conducted by involving all primary level hospitals in the province. Head of an Institute (HOI) was considered as the respondent. A structured and validated questionnaire was used to collect data. Questionnaire was prepared as a Google form and disseminated via email and WhatsApp.

Results: A total of 38 HOIs participated (response rate of 73%). Twenty-six (68%) knew the importance of predicting staff migration and taking necessary actions. However, only 32% had a plan to mitigate the impact. Only 10% planned and implemented any specific action to minimize psychological stress among staff. Showing empathy, arranging trips and contributing to education expenses of kids were reported as intended actions. Twenty-eight (74%) reported that they have a system to get alerts when essential drugs become out-of-the-stock. However, only 42% (n=16) thought of any specific actions to minimize the effect such as altering drug regimen or finding donors to supply essential drugs. Functioning 'friend of facility' committees were available in 29 (76%) of hospitals, while 12% hospitals were receiving support from other sectors in maintaining essential services.

Conclusions: Having a system to get alerts when essential drugs become out-of-the-stock was commendable. However, taking mitigating actions for staff migration was practiced by minority of hospitals. Only few hospitals were obtaining support from public and private sectors.

Key words: Primary health, Resilience

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PP 36

Health-related quality of life of chronic obstructive pulmonary disease patients: results from a cross-sectional study in government chest clinics in the Western Province, Sri Lanka

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Background: Chronic obstructive pulmonary disease (COPD) is common worldwide and in Sri Lanka. Evaluating and improving their health-related quality of life (HRQoL) is a key outcome measure treatment.

Aims: To describe the HRQoL of COPD patients attending government chest clinics in the Western Province, Sri Lanka

Methods: A cross-sectional study involved 933 COPD patients selected through systematic sampling from chest clinics in the province. HRQoL was measured using the St. George's Respiratory Questionnaire (SGRQ), a validated tool for assessing symptoms, activity limitations and disease impact. Inclusion criteria included patients over 18 diagnosed with COPD for over three months. Excluded were critically ill patients and those with mental impairments or speech/hearing difficulties. The analysis of HRQoL and its associations was conducted as a continuous variable on a 0–100 scale. Mann–Whitney U test was used to compare HRQoL across different variables.

Results: The response rate was 98.6% (n=920), with a median age of 69 years (IQR: 63–75). Most were male (85%), Sinhalese (80%), Buddhist (69%), married (83%) and had secondary education (60%). The activity domain had the lowest HRQoL mean (66.89; SD=25.39), indicating challenges in physical activities. The symptoms and impact domains scored 51.0 (SD=20.72) and 43.17 (SD=22.1), suggesting moderate symptom burden and psychosocial impact. The total mean score was 51.66 (SD=19.59). Poorer HRQoL significantly correlated ($p<0.05$) with females, older adults (≥60 years), low education, unmarried status, low income (<LKR 10,000), longer disease duration (>one year), abnormal body mass index, exacerbations, and hospital admissions.

Conclusions: HRQoL among COPD patients in the Western Province was poor, particularly in activity domains. It was significantly linked to older age, female sex, lower socio-economic status and clinical factors like exacerbations and hospitalizations. These results emphasize the need for targeted interventions.

Key words: Chronic obstructive pulmonary disease, Quality of life

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PP 37

Validation of health-related quality of life (HRQoL) questionnaires among patients diagnosed with chronic obstructive pulmonary disease - St. George's Respiratory Questionnaire

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Background: Chronic obstructive pulmonary disease (COPD) represents a significant burden. A validated disease-specific questionnaire is needed to measure HRQoL and evaluate management outcomes.

Aims: To validate a HRQoL questionnaire for patients diagnosed with COPD in Sri Lanka

Methods: A literature review identified the St. George's Respiratory Questionnaire (SGRQ) as suitable for validation. The SGRQ was translated into Sinhala language using forward-backward translation and adapted via the modified Delphi method. A total of 385 COPD patients from chest clinics of the Teaching Hospital, Karapitiya were recruited through consecutive sampling. Confirmed COPD diagnosis and age≥18 years were included, while patients with cognitive impairments were excluded. Construct validity was tested with the multitrait-multimethod matrix, and factorability was analysed using principal component analysis (PCA). Reliability was assessed through internal consistency and test-retest methods, and the Tamil language version underwent linguistic validation.

Results: With a 100% response rate, most participants aged 61–70 (38.7%) were mainly male (58.7%), Sinhalese (94.0%) and Buddhist (92.5%). Most were married (82.3%), had secondary education (30.1%), lived in rural areas (78%) and belonged to nuclear families (66%). The SGRQ showed high internal consistency (r=0.76-0.837) and strong negative correlations with SF-36 (r=-0.636), confirming convergent validity. Weak correlations with FEV1 (r=-0.029), anxiety and depression (r=-0.065) indicated discriminant validity. PCA demonstrated good construct validity (KMO=0.879; 54.8% variance), which is acceptable in psychometric evaluation supporting the tool's integrity. Reliability was excellent (Cronbach's alpha=0.922; test-retest=0.961).

Conclusions: Validated Sinhala and Tamil SGRQ versions effectively assess HRQoL in COPD patients at government chest clinics in the Western Province.

Key words: Chronic Obstructive Pulmonary Disease, Construct validity, PCA, SGRQ

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PP 38

Level of physical activity and its associated factors among medical and management undergraduates at a university in Sri Lanka

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Background: Physical activity is essential for maintaining health and well-being, yet university students often struggle to remain active due to academic and lifestyle pressures. Understanding the factors influencing physical activity among students is crucial for developing targeted interventions.

Aims: To describe the physical activity levels and associated factors among medical and management undergraduates at the University of Sri Jayewardenepura, Sri Lanka

Methods: A cross-sectional study was conducted among 427 first-, second- and third-year undergraduates. Students with disabilities were excluded. Probability proportionate to size sampling method and random sampling were used for selecting the sample. Data were collected using a self-administered questionnaire, including the International Physical Activity Questionnaire (IPAQ), which assessed activity levels categorised as 'low', 'moderate' or 'high'. Chi-squared tests examined associations with academic, socioeconomic and psychological factors.

Results: The response rate was 90.4% (134 medical, 213 management). Overall, 41.5% of students reported high activity, 37.8% moderate, and 30.6% low. Among medical students, high activity was nearly equal between males (34.6%) and females (35.4%). Among management students, more males (41.5%) than females (33.1%) reported high activity. Although over 85% of students believed physical activity positively impacted academic performance, no significant association was found ($p>0.05$). Significant associations were observed between physical activity levels and three key factors: experiencing fatigue during academic activities ($p=0.046$), history of injury or surgery ($p=0.046$) and presence of central nervous system (CNS) symptoms such as weakness, numbness or balance issues ($p=0.006$). Notably, increased awareness of health benefits was noted among medical students, perceived academic impact of physical activity, and reported barriers such as time constraints and discomfort exercising around the opposite sex, particularly among females. Males were more engaged in gyms (39.3% vs. 3.7%) and sports (78.9% vs. 39.0%).

Conclusions: Despite awareness of its benefits, physical activity among students varied due to academic pressures and gender-based barriers. Targeted interventions are needed to promote physical activity by addressing barriers, time management and awareness across academic disciplines.

Key words: Physical activity, Undergraduate students, Medical and management students, Non-communicable diseases

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PP 39

Prevalence of pre-operative anxiety and its associated factors among patients undergoing major surgery at Colombo South Teaching Hospital, Sri Lanka

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Background: Pre-operative related anxiety is universal, leading to possible post-operative complications.

Aims: To assess the prevalence of pre-operative anxiety, its associated factors with post-operative complications among patients undergoing major surgery at Colombo South Teaching Hospital (CSTH), Sri Lanka

Methods: A descriptive cross-sectional study of 226 surgical patients aged 18-70 years who were undergoing major surgeries in the hospital were recruited. Sinhala validated Amsterdam-Pre-operative-Anxiety-and-Information-Scale (APAIS) was administered one day prior to the surgery. The APAIS consists of six questions, which assess three anxiety components: anaesthesia-related-anxiety (Sum A), surgery-related-anxiety (Sum S) and information-desire-component (Sum IDC). The combined score (Sum C) is given by the total of Sum A and Sum S. A Sum C of ≥11 indicates significant anxiety. Significance was taken at $p<0.05$.

Results: Almost 30.1% (n=226) had pre-operative anxiety. Mean anxiety score was 8.3 (SD=3.839). Female gender, having lower education level and lower income had significant pre-operative anxiety ($p<0.05$). Pre-operative anxiety was also significantly associated with higher rates of post-operative complications ($p<0.05$).

Conclusions: It is important to screen pre-operative patients for anxiety, especially high-risk groups and provide them with counselling and various other methods to reduce pre-operative anxiety.

Key words: Pre-operative, Anxiety, Surgery, Complications

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PP 40

Locally emerging tobacco products in Ratnapura District, Sri Lanka

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Background: Tobacco, derived from the *Nicotiana tabacum* plant of the Solanaceae family, is consumed in both smoking and smokeless forms. Products range from standardized manufactured items to unregulated, locally produced or self-prepared forms such as hand-rolled cigarettes, *thool* and *sara vita*.

Aims: To describe the types and characteristics of locally manufactured and self-prepared tobacco products used in Ratnapura District, Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 880 spouses/partners of pregnant women attending government antenatal clinics. Tobacco users were identified via structured interviews, and those reporting use of non-standard products underwent further in-depth interviews.

Results: *Sara vita* is a commercially available, unregulated smokeless tobacco preparation comprising tobacco, betel leaf *(Piper betle),* areca nut *(Areca catechu)*, colored coconut flakes and honey, intended to enhance palatability. It is predominantly sold at public gatherings such as religious processions and musical events. The product is not registered under any formal regulatory framework and lacks ingredient labeling. Its visual and sensory appeal—achieved through the inclusion of brightly colored coconut flakes and sweeteners—appears to specifically target children and novice users. Typically displayed in illuminated containers, especially under low-light conditions, its marketing and presentation strategies potentially promote initiation of tobacco chewing behaviors among vulnerable groups. *Thool*, a commonly used self-prepared smokeless tobacco product, is especially prevalent among adolescents and school-aged children. It is formulated by mixing powdered tobacco with slaked lime and is typically stored in small plastic bags or balloons. Users place the mixture between the molars or under the tongue for intermittent chewing, typically over 20-30 minutes. Chronic use is associated with oral mucosal irritation and ulceration. Anecdotal reports indicate that some users apply *Thool* to facial wounds to prevent oral lesions, indicating misinformed harm reduction behaviours. Inadequate disposal practices, such as flushing used bags down school toilets have led to frequent plumbing blockages, highlighting secondary public health concerns.

Conclusions: Unregulated products like *sara vita* and *thool* facilitate early tobacco initiation, particularly among youth, and pose significant health and environmental risks. Enforce regulations on local tobacco products, raise community awareness, and implement school-based preventive interventions.

Key words: Tobacco products, *Sara vita*, *Thool*, smokeless tobacco, Youth tobacco use

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PP 41

Effectiveness of alcohol regulatory interventions: a systematic review of policies in low- and middle-income countries

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Background: Alcohol consumption presents significant public health challenges globally, with low- and middle-income countries (LMICs) experiencing a high burden of alcohol related harm. However, the effectiveness of regulatory interventions to control alcohol consumption in LMICs remains understudied.

Aims: To evaluate the effectiveness of alcohol regulatory interventions implemented in LMICs

Methods: A systematic search of MEDLINE, EMBASE, CINAHL, PsycINFO and Web of Science was conducted in August 2024. The search strategy included terms related to alcohol regulatory interventions and their impact on alcohol consumption, health and related outcomes. Risk of bias was assessed using the NIH, EPOC checklist, ISPOR-SDMD checklist and CASP quality assessment tools. A narrative synthesis was performed to summarize the findings.

Results: Of the 169 full-text articles screened, 62 studies met the inclusion criteria. Most studies were conducted in upper middle-income countries (n=48; 77%), followed by lower middle-income countries (n=7) and low-income countries (n=1). Sixty percent of studies were of good quality. In terms of WHO alcohol policy domains, 18 studies focused on restricting physical availability, 11 on pricing, one on marketing, 21 on drink-driving interventions and 11 on multi-domain policies. Alcohol consumption-related outcomes were reported in 26 studies, health outcomes in 25 and other outcomes in 14 studies. Policies restricting alcohol availability and pricing interventions were consistently effective, while limited evidence on marketing policies was inconclusive. Drink-driving interventions showed positive effects.

Conclusions: Alcohol control policies in LMICs are largely effective. Strengthening enforcement and statutory regulations could enhance their impact.

Key words: Alcohol, Policy, Cost effectiveness, Multi state life table, Modelling, Sri Lanka

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PP 42

Impact of patients' decisions on the timeliness of cervical cancer care in Sri Lanka

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Background: In Sri Lanka, patients can select any care pathway according to their preferences, bypassing specific healthcare providers and institutions. Although there is a guideline for treating and referring patients with cervical cancer, it is not promptly implemented within the healthcare system.

Aims: To describe cervical cancer care pathways used by cervical cancer patients in Sri Lanka

Methods: A hospital-based descriptive cross-sectional study was conducted among 407 cervical cancer patients with histological confirmation from five state tertiary care hospitals. A validated interviewer-administered questionnaire was used, and the dates were verified against the medical records. Descriptive statistics were applied to outline care pathways. Intervals in cervical cancer care were described in the median and interquartile range.

Results: The most common method of detecting cancer among cervical cancer patients in Sri Lanka was through symptoms (n=371; 91.2%). Twenty-three participants (5.6%) identified their illness during the screening programme, while 13 (3.2%) detected the cancer incidentally during another medical procedure. Two hundred fifty-three participants (62.2%) first consulted a relevant specialist healthcare professional (gynaecologists, gynae onco-surgeons) as the predominant pathway among eight different pathways. The second most common pathway involved the patient consulting a primary care professional as the first point of care. Patients who initially consulted Ayurvedic doctors experienced the longest total interval from the onset of symptoms to initiating primary treatment (median: 122 and IQR: 74-205 days).

Conclusions: The findings advocate for a referral system for cervical cancer patients to minimise delays in Sri Lanka.

Key words: Cervical cancer, Care Pathway, Delays

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PP 43

Engaging persons affected with leprosy in the early identification of leprosy suspects in a district of Sri Lanka

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Background: Leprosy is a disease with myths and misbelieves. It negatively affects the treatment seeking behaviour which results in poor treatment success. Dispelling the myths and misbelieves has been a challenge at present. Hence, community accepted novel methods need to be adopted to identify hidden cases. Leprosy Peoples Association (LPA) is an organization with people affected with leprosy.

Aims: To assess the effectiveness of the engagement of persons affected with leprosy for early identification of leprosy suspects in the Batticaloa district, Sri Lanka

Methods: A qualitative study comprising small group discussions with communities was conducted with the help of the LPA. Key discussion points included myths and misbeliefs, signs and symptoms, and the importance of early detection. At the end of the session, participants were asked to identify their close ones with features suggestive of leprosy and were directed for confirmation of the diagnosis via public health inspector leprosy control (PHILC). Descriptive statistics were used and suspects referred and confirmed with leprosy were used to assess the effectiveness of the initiative.

Results: Eighteen small group discussions were conducted with 10-15 participants per session. Sixty-three individuals with suggestive symptoms were identified by the community, out of which 51 (81%) suspects were referred by the PHILC to the dermatology clinic. Of them, 38 (60%) were confirmed with leprosy.

Conclusions: Involvement of people affected with leprosy in finding out the hidden patients by dispelling the myths and misbelieves is a novel promising initiative in the district of Batticaloa.

Key words: Leprosy, People affected with leprosy

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PP 44

Self-care practices and associated factors among hypertensive patients attending government medical clinics in Kandy District, Sri Lanka

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Background: Hypertension, the leading preventable risk factor for premature death and disability, affects 1.28 billion adults globally. In Sri Lanka, one-third of adults aged 18–69 have raised blood pressure or are diagnosed with hypertension.

Aims: To describe self-care practices and associated factors among hypertensive patients attending the government medical clinics in Kandy District, Sri Lanka

Methods: A cross-sectional analytical study was conducted among 1175 adult primary hypertensive patients, selected through stratified cluster sampling. Self-care practices: smoking, alcohol use, salt intake, fruit and vegetable consumption, physical activity, medication adherence and home blood pressure monitoring, and associated factors were assessed via an interviewer-administered questionnaire. Descriptive statistics and multivariate regression were used.

Results: Of the 1107 participants (94.2% response; mean age 61.3 years), 7% smoked and 8.9% consumed alcohol, though rates were higher among men. Only 25.7% met fruit/vegetable intake recommendations; and 59.3% had high salt intake. Physical inactivity (47.1%) was higher in females. Poor medication adherence (46%) and low home blood pressure monitoring (8%) were reported. Those below the age of 60 years were more physically active but had lower medication adherence. Low income and education were linked to unhealthy dietary practices.

Conclusions: Self-care engagement was low among hypertensive patients. Regular individual-level assessments are important for effective hypertension management.

Key words: Hypertension, Self-care practices

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PP 45

Women with leprosy in Sri Lanka: is there anything more to be known?

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Background: Global data show that leprosy is commoner among males. Male-over-female predominance, traditional beliefs, low status, limited mobility and illiteracy levels of women have been identified as important factors responsible for the health seeking behaviour of the women. Knowing the true nature is important for the planning of preventive activities.

Aims: To assess the status of women affected with leprosy in Sri Lanka

Methods: National data base of the Anti-Leprosy Campaign was analysed from year 2000 to 2015 and the results were presented as numbers and percentages.

Results: A total of 30,544 individuals with leprosy were included in the analysis. Among them, 41.9% (n=12,806) patients were females. Out of all females, 14.2% (n=1,199) were children below the age of 15 years. Majority of the females were Sinhalese (77.7%) and were having paucibacillary (PB) leprosy (65.9%) and some form of disability at the time of diagnosis (21%). Among the deformed, majority (n=462; 17%) had Grade 1 deformities.

Conclusions: More than one fifth of the women with leprosy were experiencing deformities at the time of diagnosis and need to have strategies to identify early to prevent the deformities. In-depth qualitative and quantitative studies focusing the at risk marginalized females are needed to identify the true nature of the females affected with leprosy.

Key words: Leprosy, Deformities, Women

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PP 46

Development and validation of the Medication Literacy Assessment Questionnaire in Sri Lanka

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Background: Effective management of non-communicable diseases (NCDs) relies on medication adherence and lifestyle adjustments. Enhancing medication literacy empowers patients to follow treatment plans. However, appropriate tools are lacking.

Aims: To develop and validate the Medication Literacy Assessment Questionnaire (MLAQ) to assess medication literacy among patients with chronic NCDs in Sri Lanka

Methods: Item generation for MLAQ was done through literature review, key informant interviews with experts and patients, and focus group discussions with healthcare providers. Item reduction used a modified Delphi process, followed by exploratory factor analysis (EFA) carried out with 210 participants. The participants were adults aged 40-80 years with selected chronic NCDs attending the government hospital medical clinics in Kalutara District, Sri Lanka. Confirmatory factor analysis (CFA) carried out with another 190 participants assessed construct validity. Reliability was assessed using Cronbach's Alpha and inter-observer tests.

Results: A Total of 52 items were generated, and following the Delphi process, 21 items were refined for EFA, yielding three latent factors from 13 items, explaining 58.27% of the variability. CFA confirmed construct validity with satisfactory model fit (SRMR=0.0638; RMSEA=0.095; CFI=0.922; IFI=0.923). Internal consistency was high with Cronbach's Alpha ranging from 0.752 to 0.85. The numeracy and prose literacy sections showed domain reliabilities of 0.81 and 0.97, respectively.

Conclusions: The potentially valid and reliable MLAQ was developed for assessing medication literacy among NCD patients in Sri Lanka. The questionnaire can be used in clinical settings and to identify opportunities for improvement.

Key words: Medication Literacy, Medication Literacy Assessment Questionnaire, Chronic non-communicable diseases, Medical clinics

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PP 47

Medication literacy and correlates among adults with chronic non-communicable diseases in Kalutara District, Sri Lanka

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Background: Managing non-communicable diseases (NCDs) requires consistent medication use and lifestyle changes. Enhancing medication literacy (ML) can empower patients to follow treatment plans, while poor ML can lead to treatment non-adherence and inadequate lifestyle adjustments.

Aims: To assess ML and its correlates among adults aged 40-80 years with chronic NCDs attending state hospital medical clinics in Kalutara District, Sri Lanka

Methods: A descriptive cross-sectional study evaluated medication literacy using the Medication Literacy Assessment Questionnaire (MLAQ). Cluster sampling was used to select a sample of 1090, and within each cluster, systematic sampling was used to identify 15 patients. Data collection was done by trained pre-intern doctors. Chi-squared testing and multiple logistic regression identified associations between ML and various factors. Results were expressed as adjusted odds ratio (AOR) and 95% confidence intervals.

Results: Response rate was 98.7% (n=1076). The mean age was 63.72 years. The majority (84.7%; 95% CI: 82%, 87%) had inadequate ML (<50th percentile). Only 15.3% had adequate ML. Factors associated with insufficient ML included age over 60 years (AOR=1.72; 95% CI: 1.009, 2.93), education below G.C.E. Ordinary Level (AOR=3.21; 95% CI: 1.89, 5.46), income below LKR 50,000 (AOR=4.161; 95% CI: 2.017, 8.584), poor comprehension of verbal (AOR=5.0; 95% CI: 1.53, 16.36), and written (AOR=3.15; 95% CI: 1.04, 9.54) medication information in English, lack of mobile devices for information access (AOR=3.09; 95% CI: 1.44, 6.62), lack of awareness of the diagnosis (AOR=4.5; 95% CI: 1.49, 13.54) and poor compliance with doctors' instructions (AOR=4.07; 95% CI: 2.29, 7.24).

Conclusions: The findings reveal a high prevalence of inadequate ML, with 84.7% of participants scoring below the 50th percentile. Innovative interventions need to be done to improve ML among NCD patients.

Key words: Medication Literacy, Medication Literacy Assessment Questionnaire, Chronic non-communicable diseases, Medical clinics

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P 48

Level of physical activity and respiratory functions of patients with chronic obstructive pulmonary disorders attending clinics in Colombo District, Sri Lanka

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Background: Chronic obstructive pulmonary disease (COPD) is a major public health issue, significantly affecting respiratory function and physical activity. Reduced physical activity exacerbates disease progression and negatively impacts on the quality of life of COPD patients.

Aims: To describe the level of physical activity and respiratory functions of COPD patients attending selected clinics in the district of Colombo, Sri Lanka

Methods: A descriptive cross-sectional study was conducted in chest clinics of the Colombo South Teaching Hospital. Respiratory function was assessed using the St. George's Respiratory Questionnaire (SGRQ), physical activity using the Incremental Shuttle Walk Test (ISWT), and associated factors using an interviewer-administered questionnaire. Respiratory function was classified as 'mild', 'moderate' and 'severe' according to SGRQ. Chi-squared test was used to determine the factors associated with respiratory function and physical activity level. Significance was taken as $p<0.05$.

Results: Among 186 participants, the mean age was 62.41 years (SD=11.08). Respiratory function was mild (38.2%), moderate (31.2%) and severe (30.6%), respectively. A progressive decline in ISWT distance was observed with increased respiratory impairment. Pre- and post-test SpO_2 showed significant differences ($t=14.2$; $p=0.00$). Smoking and area of residence were significantly associated with respiratory function ($p<0.05$). Majority (73.1%) had a low adherence to medication.

Conclusions: Socio-demographic, lifestyle and environmental factors, especially smoking and low medication adherence significantly impact respiratory function. Targeted interventions, particularly addressing modifiable risk factors, can improve outcomes.

Key words: COPD, Respiratory functions, Incremental Shuttle Walk Test (ISWT)

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PP 49

Family functioning and its association with selected lifestyle-related risk behaviours among Grade ten students in Kegalle District, Sri Lanka

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Background: Family functioning encompasses the social, structural and organizational dynamics within the family, as well as the interactions among its members. The family plays a pivotal role in shaping adolescent behaviour and is crucial to their overall physical, psychological and social well-being.

Aims: To determine the association of family functioning with selected lifestyle related risk behaviours among Grade ten students in Kegalle District, Sri Lanka

Methods: An analytical cross-sectional study was conducted among 1240 Grade 10 students in government schools in the district, selected through multi-stage cluster sampling with probability proportionate to size. Data were collected using the validated Sinhala version of McMaster Family Assessment Device as a self-administered tool. Data were analysed using SPSS 21. Binary Logistic regression was conducted to control the confounding effects. Results were expressed as adjusted odds ratios (AOR) and 95% CI.

Results: Response rate was 98.1% (n=1215). Inadequate physical activity (AOR=1.94; 95% CI: 1.22, 3.01; p=0.004); unhealthy consumption of high-salt foods (AOR=1.95; 95% CI: 1.28, 2.95; p=0.002), sugar sweeten beverages (AOR=2.0; 95% CI: 1.4, 2.89; p<0.001), fast food (AOR=1.87; 95% CI: 1.25, 2.81; p=0.002); excessive internet use (AOR=2.46; 95% CI: 1.48, 4.06; p<0.001); excessive mobile phone use (AOR=2.29; 95% CI: 1.83, 3.64; p=0.001) were positively associated with unsatisfactory level of perceived family functioning while parental monitoring (AOR=0.21; 95% CI: 0.13, 0.38: p<0.001) showed negative association.

Conclusions: Unsatisfactory family functioning was significantly associated with selected lifestyle-related risk behaviours among adolescents, highlighting the need for community-level, family-targeted interventions aimed at enhancing family functioning to reduce risk behaviours among adolescents.

Key words: Family, Family functioning, Adolescents, Lifestyle-related risk behaviours

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PP 50

Factors associated with the quality of home-based non-pharmacological dementia care in Sri Lanka

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Background: Dementia is a growing global health concern, with major implications for Sri Lanka due to its expedited demographic transition. As pharmacological treatment remains inadequate and inconsistent, establishing a sound protocol for home-based care is paramount. However, local studies on such care are sparse.

Aims: To describe the quality of home-based care (QoHBC) and associated factors in dementia in Sri Lanka

Methods: A cross-sectional study was conducted among 102 caregivers of dementia patients attending the psychiatry and neurology clinics at National Hospital of Sri Lanka and Colombo South Teaching Hospital. They were recruited using systematic sampling. QoHBC was assessed under physical and social environments using the validated, interviewer-administered Family Level Dementia Care Assessment Tool. Each domain was scored according to a weighted scale developed with expert guidance. Higher scores indicated better QoHBC. Associated factors were analysed using t-test, with normality assumptions confirmed using the Shapiro-Wilk method.

Results: Response rate was 100%. The mean scores obtained for physical (range: 0–64) and social (range: 0–36) environments were 41.05 (SD=7.28) and 24.97 (SD=5.5), respectively. Significantly higher physical environment scores were found among caregivers who were married (p=0.047), educated beyond G.C.E. Ordinary Level (p=0.024) and had a monthly income over LKR 50,000 (p=0.003). Higher social environment scores were associated with education beyond G.C.E. Ordinary Level (p=0.007), adequate financial and non-financial family support (p<0.001), income over LKR 50,000 (p=0.018) and not more than three years since diagnosis (p=0.038).

Conclusions: Developing a community-based protocol offering financial assistance and caregiver education could enhance the quality of home-based care for dementia patients in Sri Lanka.

Key words: Dementia, Home-based non-pharmacological care, Physical and social environment

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PP 51

Effect of the duration of screen exposure on preschoolers' behavioural patterns during classroom activities

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Background: The increased screen time of preschoolers has become a growing concern. Paediatric guidelines suggest that the use of screen-based devices by children younger than 18 months be avoided except for video chat, whereas for children aged 2-5 years, to be limited to one hour per day of quality programming. Although there are guidelines, most children fail to meet those guidelines, leading to a range of behavioural and developmental issues among them.

Aims: To assess the screen exposure time of preschool children and its effects on their behaviour during classroom activities in Matale District, Sri Lanka

Methods: This study was conducted with 59 mothers of children aged 3-5 years in preschools in the district. The data on existing level of children's digital screen time and relevant factors were assessed using an interviewer-administered questionnaire. Children's behaviour in the classroom was assessed using a behavioural checklist with the help of the preschool teacher. Thereafter, mothers were empowered through facilitated discussions to identify and control the factors related to excessive digital screen usage among children using small activities such as screen free time and places in the household for everybody in the house. Principles of health promotion were used for this intervention. Four months following the intervention, data collection was conducted by using the same study instruments to assess the changes.

Results: Television time of children was reduced from >1 hour to <1-hour level by 27.1% ($p<0.05$) and the smartphone usage time of children was dropped from >1-hour to <1-hour level by 20.3% ($p<0.05$). Following the intervention, significant behavioral changes were observed among children during class time, including getting angry with others ($p<0.001$), hyperactivity ($p=0.001$), screaming ($p<0.001$), fighting ($p=0.003$), sudden mood changes ($p=0.002$) and argumentative with peers ($p=0.004$). Additionally, improvements in social interactions were evident, with significant increases in playing well with others ($p=0.002$), showing concern for others when hurt or unhappy ($p<0.001$) and sharing behaviours ($p=0.004$).

Conclusions: This study supports the existing evidence and showed that digital screen time has an effect on the behaviour of children in semi-urban settings in Sri Lanka. The findings suggest that proper screen time management is a useful intervention strategy to enhance preschoolers' behavioral outcomes.

Key words: Digital screen time, Preschoolers, Aged 3-5 children, Behavioral patterns, Health promotion intervention

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PP 52

Sleep quality of obese adults attending the Base Hospital, Panadura in Sri Lanka

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Background: Obesity and sleep deprivation are interrelated global health concerns contributing to non-communicable diseases (NCD).

Aims: To assess the sleep quality and its association with body composition parameters of obese adults in Sri Lanka

Methods: A descriptive cross-sectional study was conducted at the NCD clinics in Base Hospital, Panadura among 160 obese adults recruited by convenience sampling**.** Pittsburgh Sleep Quality Index (PSQI) and body composition analyser (ACCUNIQ BC380, Selvas Health Care, South Korea) was used for data collection. Data were analysed with significance of associations at p-value < 0.05.

Results: Mean age of the participants was 45.78 years (SD=10.41), while 82.5% (n=132) were females. Mean (SD) of global PSQI score was 7.16 (3.17), with 64.4% scoring >5. Sleep deprivation (<7 hours/night) was prevalent in 86% (n=139) and 59.4% (n=95) had abnormal sleep latency (>20 minutes) and 88.7% poor sleep efficiency. Body fat percentage and visceral fat mass positively correlated with global PSQI scores (r=0.241 and r=0.183), respectively, while skeletal muscle mass showed a negative correlation (r=-0.234) ($p<0.05$). Regression analysis revealed that body fat percentage is a significant predictor of global PSQI score ($\beta=0.18$; $p<0.05$).

Conclusions: Obese adults experienced poor sleep quality due to poor sleep duration, latency and efficiency, which was associated with increased fat percentage and decreased skeletal muscle mass. One percent increase in body fat significantly increases PSQI by 0.1, when adjusted for gender. Therefore, integrating sleep hygiene interventions into obesity management protocols should be considered to disrupt the cyclical relationship between poor sleep and obesity.

Key words: Obesity, Sleep quality, Sleep deprivation, Sleep hygiene

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PP 53

Quality of life and its associated factors among chronic kidney disease patients at the Teaching Hospital, Kalutara, Sri Lanka

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Background: Chronic kidney disease (CKD) is a growing health issue in Sri Lanka, largely driven by hypertension and diabetes. Despite its impact on quality of life (QOL), limited research exists in Kalutara District.

Aims: To determine the QOL and its associated factors among CKD patients attending the Teaching Hospital, Kalutara in Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 361 patients with CKD, irrespective of the stage, who were registered in the nephrology clinic. Patients were selected using systematic sampling technique according to their order of clinic registration. A self-administered was given to the participants which included the Kidney Disease Quality of Life—Short Form version 1.3 questionnaire validated to Sri Lanka. Associations were tested using chi-squared test at $p<0.05$ significance level.

Results: The response rate was 100%. Most of the study participants (52.4%) reported good QOL. Sex of the patient ($p=0.03$), advance CKD stage ($p<0.001$), receiving haemodialysis ($p=0.002$), having comorbidities ($p=0.029$), medical expenses per visit ($p=<0.001$) and distance to hospital ($p<0.001$) were significantly associated with their QOL.

Conclusions: Most patients with CKD reported good QOL with demographic, economic and clinical factors influencing their QOL. Regular assessment of QOL of CKD patients, provision of counselling for high-risk groups, provision of financial aid and improving healthcare access are recommended.

Key words: Quality of life, Chronic kidney disease, Associated factors, Kalutara

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PP 54

Assessment of health and nutritional status of nutritionally vulnerable children under five years in Jaffna islands, Sri Lanka

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Background: Children under five years in Jaffna Island zones are particularly vulnerable to malnutrition due to geographic, socioeconomic and service access barriers. In this context, a comprehensive understanding of their health and nutritional status is essential for targeted intervention.

Aims: To assess the degree of malnutrition and health risks through anthropometric, dietary and dental health pre-screening among children under five years in the island regions of Jaffna, Sri Lanka

Methods: A purposively selected sample of 93 nutritionally vulnerable children was drawn from 30 different preschools across Velanai and Kayts Medical Officer of Health (MOH) Divisions. Anthropometric measurements were analysed using WHO Anthro software to assess key indicators such as weight-for-age, height-for-age, weight-for-height, and body mass index (BMI)-for-age.

Results: Approximately 40–45% of children had weight-for-height z-scores below -2, indicating acute malnutrition. Additionally, nearly 43% recorded BMI-for-age z-scores below -3, indicating severe undernutrition and children showed mild stunting, with most z-scores between -1 and -2, lower than the WHO reference, suggesting long-term nutritional inadequacy. There were notable differences in weight-for-age, height-for-age and BMI-for-age by gender, with girls and boys both affected but in varying degrees. Analysis of z-score variations by month showed consistently low growth outcomes across all age groups. Dietary assessment revealed a low mean dietary diversity score of 3.04 and a mean food variety score of 6.04, suggesting inadequate dietary intake and limited food group exposure. The mean decayed, missing, and filled teeth score was 2.14, highlighting compromised oral health and potential sugar-related dietary risks.

Conclusions: The results highlight critical nutritional and health deficiencies among preschool-aged children in the island sectors of Jaffna. Immediate, targeted interventions focusing on improved diet diversity, nutritional support, and preventive oral health are essential to address these interconnected health challenges.

Key words: Anthropometry, Dietary diversity, Malnutrition, Oral health, Preschool children

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PP 55

Utilization pattern of public primary health care institutions for common clinical conditions in Gampaha District, Sri Lanka

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Background: The goal of universal health coverage, primarily through primary health care, is the current global trend towards achieving health for all. PHC consists of curative and preventive care. In order to build effective primary level hospital services, it is necessary to evaluate how current services are being used by the general public.

Aims: To describe the utilization of public primary health care (PHC) for common clinical conditions in a district in Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 501 households in rural areas in Gampaha District, selected using a two-stage cluster sampling method. An interviewer-administered questionnaire was introduced to head of the households to obtain details of utilization pattern of PHCs. Descriptive statistics are presented as percentages with confidence intervals.

Results: Outpatient department services were utilised by 73.8% (95% CI: 69.3, 78.3) households for childhood illnesses and 62.3% (95% CI: 57.8, 66.8) for adult illnesses. In-patient department services were utilised by 13.9% (95% CI: 10.4, 17.4) households for children and 10.4% (95% CI: 7.9, 12.9) for adults. Higher level of education of household head was associated with lower level of utilization of PHCs for both childhood ($p<0.01$) and adult ($p<0.01$) conditions. The selection of PHCs as first choice for primary health care provider was significantly higher among low-income category ($p<0.05$).

Conclusions: A significant utilization of PHC services was observed for both childhood and adult illnesses, especially for outpatient department services. People with lower income and education are more likely to depend on PHCs. Targeted interventions to improve PHC accessibility, quality and gaining trust among all societal social strata is needed.

Key words: Primary care institutions, Utilization patterns, Gampaha, Primary health care

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PP 56

The impact of electronic patient generated data/electronic patient reported outcomes on the quality of life of patients receiving palliative cancer care: a systematic review

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Background: Electronic patient-generated data/electronic patient-reported outcomes **(**ePGHD/ePROs) are increasingly used in various clinical settings for self-reporting of symptoms and remote management of patients. The patients receiving palliative cancer care will benefit if ePGHD/ePRO could improve the quality of life (QOL) outcomes.

Aims: To investigate the impact of ePGHD/ePROs on the QOL of patients receiving palliative cancer care

Methods: The systematic review adhered to Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Four medical databases (Scopus, PubMed, PsycINFO and Web of Science) were searched and filtered between 2012 to 2024. Database searches found 642 articles and 623 studies were screened after duplicate removal. Full texts of 47 articles were reviewed and six articles were selected. Selected studies were examined for the type of digital health interventions utilizing PGHD/PROs, QOL tool/questionnaire and comparison of QOL between intervention and control arms.

Results: Studies were conducted in Canada, Korea, Germany, USA and Switzerland between 2014-2020. Each study had participants with a single type of advanced cancer (lung, breast, soft tissue sarcoma) or different types of cancer. Four studies used electronic platforms to report symptoms, while one study used interactive voice and another used an interactive game. QOL outcomes were reported using validated tools/questionnaires. Five studies showed improvement of QOL across physical, mental, social domains and eased the symptom burden, symptom management and communication. One study showed statistically significant improvement in mobility (p=0.02), selfcare (p=0.01) and anxiety/depression (p=0.01). One study failed to show any QOL improvement.

Conclusions: There is a positive impact of using ePGHD/ePRO on QOL outcomes in patients receiving palliative cancer care. However, more studies should be conducted to establish stronger evidence.

Key words: Patient generated health data, Patient reported outcome, Quality of life, Palliative cancer care, Digital health

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PP 57

Depression, anxiety and associated factors among hypertensive patients followed up at the Teaching Hospital, Kalutara in Sri Lanka

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Background: Hypertension is a global health burden associated with both physical and psychological morbidity. Depression and anxiety are commonly associated co-morbidities that can adversely affect the disease management and quality of life (QOL) of such patients. Despite its importance, limited local data exist on this area.

Aims: To assess the proportion of depression and anxiety, and their associated factors among hypertensive patients followed up at the Teaching Hospital, Kalutara

Methods: A descriptive cross-sectional study was conducted among 423 adult hypertensive patients followed up at the medical clinics. They were selected through a stratified probability proportionate systematic sampling technique. A pre-tested, self-administered questionnaire was used for data collection, which incorporated the locally validated Hospital Anxiety and Depression Scale (HADS). Multivariate analysis was done using logistic regression with 95% CI.

Results: Response rate was 100%. Depression and anxiety was seen among 16.3% and 35.0% hypertensive patients respectively. Smoking (adjusted odds ratio (AOR)=6.4; 95% CI: 1.47, 27.81), presence of complications of hypertension (AOR=2.33; 95% CI: 1.21, 4.48) and rural residence (AOR=2.47; 95% CI: 1.13, 5.35) were the independent predictors of depression (classification accuracy 84.9%), while living alone (AOR=1.99; 95% CI: 1.29, 3.06) and presence of co-morbidities (AOR=1.61; 95% CI: 1.05, 2.47) were independently associated with anxiety (classification accuracy: 67.1%).

Conclusions: Depression and anxiety are prevalent among hypertensive patients and are associated with complications of the disease and comorbidities, lifestyle, and social factors. Incorporation of mental health screening and psychological support to the hypertension management is recommended to improve patient outcomes.

Key words: Hospital Anxiety and Depression Scale, Depression, Anxiety, Hypertensive patients, Kalutara

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PP 58

Preparedness on flood-related emergencies: knowledge, attitudes and associated factors among adults in flood prone areas of Attanagalle Divisional Secretariat (DS), Sri Lanka

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Background: Floods are among the most frequent and devastating natural disasters, affecting millions of lives worldwide increasing in both frequency and intensity, mainly affecting low-income communities. Flood preparedness remains low in these communities despite the risk, exposing a significant gap in the disaster management strategies.

Aims: To assess the preparedness on flood-related emergencies and its knowledge, attitudes and associated factors among adults living in flood prone areas of Attanagalle DS Division

Methods: A community-based descriptive cross-sectional study was conducted among 356 adults living in 15 flood-prone *Grama Niladhari* (GN) divisions, selected using probability proportionate cluster sampling technique. A pre-tested and judgmentally validated self-administered questionnaire was used for data collection. Chi-squared test was used to determine associations at $p<0.05$ significance level.

Results: Response rate was 100%. The level of preparedness for flood related emergencies among adults was 24.4%. Most (57%) had good knowledge and 93.2% had favourable attitudes on flood related emergencies. Marital status ($p=0.046$), educational level ($p=0.001$), employment status ($p<0.001$), household income ($p=0.007$), previously ever or never-affected by floods or not ($p<0.001$) and the frequency of floods per year ($p=0.003$) were significantly associated with the level of preparedness for flood-related emergencies.

Conclusions: There is a low level of preparedness for flood-related emergencies among those living in flood-prone areas, despite having favourable knowledge and attitudes. Conducting community-based focused educational programmes, workshops and simulation exercises through multi-stakeholder collaboration is recommended.

Key words: Flood-related, Emergencies, Preparedness, Flood-prone, Attanagalle

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PP 59

Quality of life and its associated factors among patients with type 2 diabetes mellitus attending the Teaching Hospital, Kalutara, Sri Lanka

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Background: Type 2 diabetes mellitus (T2DM) is a health concern that significantly impacts quality of life (QOL) globally as well as in Sri Lanka. However, there is limited local research on QOL and its associated factors among T2DM patients.

Aims: To assess the QOL and its associated factors among T2DM patients attending the diabetic clinic of Teaching Hospital (TH), Kalutara

Methods: A descriptive cross-sectional study was conducted among 370 patients attending the diabetic clinic, selected through systematic sampling. A self-administered questionnaire, including the WHOQOL-BREF questionnaire validated to Sri Lanka, was used to assess the QOL of patients across physical, psychological, social and environmental domains. Data on associated factors of QOL were obtained using a questionnaire developed by the investigators which was judgmentally validated by the supervisors. The associations were assessed using chi-squared tests at $p<0.05$ significance level.

Results: Response rate was 96.75%. Poor QOL was found among 56.3% of the participants. Poor QOL was associated with poor education ($p<0.001$), physical inactivity ($p<0.001$), urban/estate residence ($p<0.001$), accessibility to primary ($p=0.001$) and secondary ($p=0.002$) healthcare, employment status ($p=0.003$), smoking ($p=0.003$), poor medication adherence ($p=0.003$), dyslipidaemia ($p=0.005$), obesity ($p=0.016$), and co-existing dyslipidaemia and hypertension ($p=0.021$). Moreover, T2DM-related complications correlated with specific QOL domains: foot ulcers with physical QOL ($p=0.034$); polyuria with psychological QOL ($p=0.009$); and neuropathy ($p=0.033$), polyuria ($p=0.002$), foot ulcers ($p=0.004$) and bone/joint disease ($p<0.001$) with environmental QOL.

Conclusions: Poor QOL is prevalent among T2DM patients in Kalutara and is associated with various social, lifestyle and health related factors, complications and comorbidities. Inclusion of the assessment of QOL in diabetes management guidelines is recommended.

Key words: Diabetes mellitus, Quality of life, Associated factors, Teaching Hospital Kalutara, Sri Lanka

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PP 60

Validation of Sleep Hygiene Index - Sinhala among medical students in Sri Lanka

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Background: Sleep hygiene refers to behavioral and environmental practices that promote good sleep quality and is essential throughout life, particularly for students. Since no validated tool currently exists in the local context, validating a sleep hygiene assessment tool for medical students is crucial to identify poor sleep hygiene practices, which may impact their well-being, academic performance and future career prospects.

Aims: To validate the Sinhala version of Sleep Hygiene Index (SHI) among medical students of the University of Ruhuna, Sri Lanka

Methods: A validation study was conducted among medical students in three phases. In Phase I, the SHI was selected from existing tools based on a literature review and expert consensus. Phase II involved translating the SHI into Sinhala and culturally adapting it using the forward-backward translation method. In Phase III, the psychometric properties of the tool were assessed. A total of 300 students participated in factor analysis: 150 for exploratory factor analysis (EFA), 150 for confirmatory factor analysis (CFA), and 386 for assessment of criterion validity using receiver operating characteristic (ROC) analysis. Students enrolled for at least six months and fluent in Sinhala were included, while those under treatment for sleep-affecting conditions or facing major exams within a month were excluded. Construct validity was assessed using EFA (principal component analysis with Varimax rotation) and CFA (with AMOS). Criterion validity was tested against clinical diagnosis by the psychiatrist. Reliability was measured using Cronbach's alpha and Kappa coefficients.

Results: The validated Sinhala SHI comprised 11 items across four factors. The mean SHI score was 31.3 (SD=6.9). The optimum cut-off value was 31.5, with sensitivity of 71.7% (95% CI: 62.9, 79.1) and a specificity of 79.2% (95% CI: 73.6, 83.8).

Conclusions: The Sinhala SHI is a valid and reliable tool for screening sleep hygiene among Sinhala-speaking medical students. Annual screening and tailored interventions are recommended, along with incorporating sleep hygiene education into student training. The tool may be adapted for other Sinhala-speaking youth populations in similar settings.

Key words: Sleep hygiene, Medical students, Validation study

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PP 61

Prevalence of selected respiratory symptoms, variations in respiratory function and their association with chalk usage among schoolteachers in Colombo Education Zone, Sri Lanka

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Background: Teachers pivot education. Their health directly affects its quality. Chalk dust while teaching poses harm to their respiratory system.

Aims: To study the prevalence of respiratory symptoms, variations in peak expiratory flow rate (PEFR) and their associations with chalk usage among schoolteachers in Sri Lanka

Methods: A cross-sectional study was conducted among 121 teachers. Those with confounding factors, smoking and heart conditions were excluded. Data were collected using a self-administered questionnaire with height and PEFR recorded. Respiratory symptoms were scored and graded into respiratory symptom load (RSL). PEFR was compared with reference values to assess lung function. Associations between chalk use, symptoms and PEFR were analysed using chi-squared test and t test ($p<0.05$).

Results: Most participants (74.4%) had low RSL, while 49.5% had low PEFR. Chalk users (27.9%) showed a higher RSL than marker users (11.4%) ($p=0.051$). Frequent chalk usage had higher RSL.

Conclusions: Although marginally insignificant owing to the study size, chalk use appears to have deleterious effects on teachers' respiratory health.

Key words: Teacher, Chalk, Respiratory symptoms, PEFR

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PP 62

Comparison of the district child nutritional status with socioeconomic indices in Sri Lanka, 2019 and 2023

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Background: Child nutrition is affected by socio-economic determinants at the individual and population levels. With static child nutrition indicators for the past decade, Sri Lanka needs to identify sub-national population level interventions targeted at areas with high nutritional vulnerability.

Aims: To describe the impact of socio-economic determinants on wasting, underweight and stunting of under 5-year-old children in Sri Lanka in 2019 and 2023

Methods: The cross-sectional analysis was done in 2023 between composites indices, namely the Multi-dimensional Poverty Index (MPI) and Multi-dimensional Vulnerability Index (MVI), were compared district-wise with wasting, underweight and stunting of under 5-year-old children in Sri Lanka, which were measured at nutritional month surveys in respective years. MPI is a composite index of health, education, etc and was calculated from the household income survey in 2019. MVI consists of weighted indices on socioeconomic vulnerability and living conditions. National nutrition month survey reports were published by the Family Health Bureau annually. The indicators were compared using correlation coefficient at 95% significance level.

Results: Comparison was done with 28 health districts in the country. The multi-dimensional poverty index was significantly associated with stunting ($r=0.697$; $p<0.05$.), underweight ($r=0.518$; $p<0.05$) and wasting ($r=0.390$; $p<0.05$). Population proportion under the poverty line in a district was also significantly associated with the under 5-year age nutritional indicators, namely stunting ($r=0.677$; $p<0.05$) and underweight ($r=0.502$; $p<0.05$) except for wasting ($r=0.371$; $p>0.05$). However, vulnerability indices of districts were not statistically significant with child nutrition indicators.

Conclusions: Districts with poverty and more people living under the poverty line should receive priority in financial protective interventions.

Key words: Multi-dimensional poverty index, Multi-dimensional vulnerability index, Nutrition

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PP 63

Knowledge, attitudes, practices and associated factors on child development among public health midwives in Kandy District, Sri Lanka

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Background: Public health midwives (PHMs) are responsible for identifying and referring developmental delays in children under five years. The Ministry of Health's programme, which was recently introduced in Kandy to streamline the detection and referral of development delays, highlights the urgency of improving early detection, especially since early detection improves long term outcomes.

Aims: To assess the level of knowledge, attitudes and practices on developmental delay of children under five years of age, and associated factors among field PHMs in Kandy District, Sri Lanka

Methods: A cross-sectional descriptive study was conducted in 23 medical officer of health areas in Kandy from September to December 2024, involving 403 PHMs. A pre-tested, self-administered questionnaire assessed knowledge, attitudes and practices on developmental delays in children under five. Knowledge level was assessed by a score and categorized into two levels of 'good' and 'poor' knowledge. Fifteen attitudes were assessed on a Likert scale and 13 practices were assessed using a rating scale. Data were analysed using chi-squared test or Fisher's exact test, with odds ratio calculated to determine the associations with socio-demographic and service-related factors.

Results: All 403 participants responded. Majority (56.3%) had poor overall knowledge, with nearly two-thirds lacking knowledge in the social and emotional development domain. Most exhibited positive attitudes and good practices. Knowledge levels showed no significant associations with socio-demographic or service-related factors. Positive attitudes toward early referral were linked to service duration under 17 years (OR=2.3; 95% C1: 1.1, 4.8; p=0.02) and good knowledge (OR=5.4; 95% CI: 2, 14; p<0.001). Confident parental guidance was associated with service duration of 17 years or more (OR=0.5; 95% CI: 0.2, 0.9; p=0.03).

Conclusions: Despite positive attitudes and practices, most PHMs displayed poor knowledge, particularly in the social and emotional domain. Ongoing capacity development is recommended, emphasizing this area.

Key words: Development delays, Children, Public health midwife, Knowledge, Attitudes, Practices

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PP 64

The role of educational and religious contexts in shaping Grade 12 students' attitudes toward sexual and reproductive health in Sri Lanka

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Background: Adolescents' attitudes toward sexual and reproductive health (SRH) significantly shape their behaviours and openness to health education. In Sri Lanka, cultural norms and institutional environments may influence these attitudes.

Aims: To assess the factors associated with attitudes towards SRH among Grade 12 students in the Kalutara Education Zone, Sri Lanka

Methods: A cross-sectional descriptive study was conducted among 600 Grade 12 students, selected through multi-stage stratified cluster sampling. Data were collected using a validated, self-administered questionnaire covering sociodemographic, academic and behavioral variables. Attitude scores were categorized as favourable (above median) or negative (below median), reflecting openness/support or resistance/discomfort towards SRH education, respectively. Statistical analyses were conducted using chi-squared and t tests.

Results: Only 44.6% of the students demonstrated positive attitudes towards SRH. Students in boys' and mixed schools had significantly more positive attitudes than those in girls' schools ($p<0.001$). Religion was a significant factor; non-Buddhist students held more favourable attitudes than Buddhists ($p=0.023$). Higher academic performance in science subjects ($p=0.015$) and enrolment in science and technology streams ($p<0.001$) were associated with more negative attitudes. No significant associations were found with gender, ethnicity, parental education or information sources like the internet and social media.

Conclusions: Attitudes towards SRH among adolescents are shaped more by school type and religious background than by academic success or digital information sources. The unexpected negative association between science performance and SRH attitudes highlights the need for more empathetic, culturally responsive health education, even in high-performing academic environments. Tailored interventions, particularly in girls' schools and among Buddhist students, may improve SRH attitudes.

Key words: Sexual and reproductive health, Grade 12 students, Kalutara Education Zone

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PP 65

Determinants of adolescent sexual practices in Sri Lanka

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Background: Adolescent sexual and reproductive health (SRH) practices are shaped by a complex interplay of social, educational and behavioral factors. Understanding these influences is crucial for designing effective interventions in Sri Lanka's school settings.

Aims: To identify the factors associated with SRH related practices, particularly sexual intercourse, among Grade 12 students in the Kalutara Education Zone, Sri Lanka

Methods: A cross-sectional descriptive study was conducted among 600 students using a multi-stage stratified cluster sampling method. A validated, self-administered questionnaire assessed SRH practices and related factors. Statistical analysis included chi-squared test and t-test.

Results: Among the participants, 6.8% reported having engaged in sexual intercourse. Male students (11.7%) were significantly more likely to report sexual activity than females (2.6%) ($p<0.001$). Students in boys' schools were more sexually active compared to those in mixed schools ($p=0.003$). Positive attitudes towards SRH were associated with higher reporting of sexual activity ($p=0.042$), while SRH knowledge showed a borderline association ($p=0.054$). Accessing SRH information via the internet ($p=0.003$) and the absence of school-based education ($p<0.001$) were linked to increased sexual activity. Practices such as romantic relationships, sex chatting, sharing explicit content, alcohol use and substance use were significantly associated with sexual behaviour. Males were more likely than females to engage in masturbation, sex chatting and sharing explicit content ($p<0.001$).

Conclusions: Gender, school type, internet use, and risky online behaviours significantly influence adolescent SRH practices. These findings highlight the urgent need for gender-sensitive, comprehensive SRH education in schools to counter misinformation and reduce risky behaviours.

Key words: Sexual and reproductive health, Adolescents, Kalutara Educational Zone

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PP 66

Challenges faced by individuals with disorders of sexual differentiation accessing ambulatory care in three selected districts in Sri Lanka

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Background: Disorders of sexual differentiation (DSD) encompasses a range of conditions, in which the biological binary-categorization of sex is challenging. The limited global literature has revealed numerous domains of challenges faced by people with DSD. There is paucity of literature on this condition in relation to Sri Lankan setting.

Aims: To explore and describe the challenges faced by individuals with DSD accessing ambulatory medical care in three selected districts in Sri Lanka

Methods: A qualitative study was done with in-depth interviews. Endocrine clinics where they usually visit for outpatient care in Colombo, Kurunegala and Kandy Districts were visited. Participants with DSD were invited purposively. Subsequent snowball sampling was done. Data collection was done from October 2024 to February 2025. Data were collected using a semi-structured questionnaire until thematic saturation was reached. Thematic-coding analysis was done. Ethics approval was obtained from National Institute of Health Sciences, Kalutara.

Results: Altogether, 21 people with DSD were recruited to the study. The age of participants ranged from 20 to 38 years. After combining similar codes, 69 codes were retained. These were categorized under 10 themes; 'preferring the non-reared sex' (6 codes), 'social pressure' (11 codes), 'appearance related challenges' (8 codes), 'social isolation' (7 codes), 'DSD being a hidden topic' (7 codes), 'challenges in getting on with family' (3 codes), 'service provision related challenges' (6 codes), 'psychological challenges' (7 codes), 'day-to-day living-related challenges' (10 codes) and 'challenges with maintaining romantic relationships and marriage' (4 codes).

Conclusions: People with DSD face a diverse-mix of challenges including intrinsic conflicts of their sexual-identity.

Key words: DSD, Intersex, Challenges faced, Qualitative study

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PP 67

Prevalence of menopausal symptoms and the knowledge and usage of hormone replacement therapy among menopausal women in Bope- Poddala Medical Officer of Health (MOH) Area, Sri Lanka

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Background: Menopause is a natural process of aging, occurring in between 45-55 years of age causing cessation of menstruation. Hormone replacement therapy (HRT) is a method used to treat many menopausal symptoms, but with associated risk factors, side effects and contraindications.

Aims: To assess the prevalence of menopausal symptoms and the knowledge and usage of HRT among menopausal women in Bope-Poddala MOH Area, Sri Lanka

Methods: A community-based cross-sectional study was conducted among a consecutive sample of menopausal women, selected from public health midwife (PHM) areas. Data were collected by the research team during home visits, using a pre-tested, interviewer-administered questionnaire. Knowledge on HRT was assessed using a set of questions and a scoring system developed by the research team based on expert advice and previous literature.

Results: A total of 152 menopausal women participated (100% response rate). Majority (n=84; 55.3%) were aged 55-60 years and 43.4% (n=66) have completed G.C.E. Advanced Level. The menopausal symptoms were reported by 41.4% (n=63) and were more common among participants who were employed and having a non-healthy body mass index (BMI). Knowledge on HRT was inadequate among 89.5% and only 2% had used HRT. Only 11.8% agreed that HRT will relieve the menopausal symptoms, while 8.6% agreed that it will prevent osteoporosis. The majority were unaware of the potential side effects of HRT (n=132; 86.8%), with only 9.9% being aware of uterine and breast cancer risk. Better knowledge on HRT was observed among women who experienced menopausal symptoms ($p>0.05$).

Conclusions: Knowledge on HRT was generally inadequate among menopausal women in Bope-Poddala area. Health education on menopause and HRT is recommended through well women clinics.

Key words: Menopausal symptoms, Knowledge, Usage, Hormone replacement therapy

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PP 68

Knowledge, attitude and practices towards screening of cervical cancers among women in Piliyandala Medical Officer of Health (MOH) Area, Sri Lanka

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Background: Cervical cancer is the second most common cancer among women in Sri Lanka and is preventable through early detection and vaccination. Despite national screening guidelines targeting women aged 35 and 45, uptake of Pap smears remains low.

Aims: To assess knowledge, attitudes, practices and the associated factors regarding cervical cancer screening among women aged 20-59 in the Piliyandala MOH Area

Methods: A descriptive cross-sectional study was conducted in six randomly selected *Grama Niladari* (GN) divisions using systematic random sampling. Data were collected using a pre-tested, validated, interviewer-administered questionnaire.

Results: The study revealed that the awareness on HPV as the main cause of cervical cancer was low (12.5%), while 65.3% were aware of the importance of smear tests. Significant associations were found between knowledge and sexual experience (p=0.008) and contraceptive use (p=0.012). Knowledge of warning signs was associated with age, gravida history, GN division (p=0.000) and miscarriage history (p=0.003). Attitudes were generally positive; 82.1% strongly agreed Pap smears are important, but embarrassment (53.3%) and fear of pain (28.3%) were common concerns. Worry about HPV was high (77.8%). Attitudes were associated with age (p=0.000) and sexual experience (p=0.000). Pap smear uptake was 47.2% with uptake lower among women under 35. Barriers included feeling too young (mostly reported by women <35) (22%), indecision (12.5%), fear (6.1%) and shyness (3%).

Conclusions: Findings highlight gaps in knowledge and practices underscoring the need for targeted health education and interventions is necessary to improve early detection and reduce mortality.

Key words: Cervical cancer, Screening, Piliyandala MOH Area

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PP 69

Comparison of functional mobility and physical activity level among patients with chronic kidney disease attending the renal clinic at National Hospital of Sri Lanka

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Background: Early deterioration of physical functioning in chronic kidney disease (CKD) reduces independence in daily activities. Assessing functional mobility and physical activity level, may facilitate early detection, as they are integral to preserving independence.

Aims: To compare the functional mobility (FM) and physical activity level (PAL) of patients at different stages of CKD in Sri Lanka

Methods: A descriptive cross-sectional study was conducted among 140 participants with CKD (78 males and 62 females), aged above 50 years and attending the renal clinic at National Hospital of Sri Lanka. Patients with medical conditions that significantly limit their mobility were excluded. The sample was selected purposively. The CKD staging was done according to the glomerular filtration rate (eGFR) and the PAL was measured in metabolic equivalent of task (MET) using the International Physical Activity Questionnaire-Short Form (IPAQ-SF), while FM was assessed using Timed up and go (TUG) test. The data were analysed using Kruskal-Wallis H test.

Results: The median TUG test times were 12.89, 11.49, 13.87, 12.33 and 13.46 seconds, while the median PAL values in MET-min/week were 799.0, 1213.5, 622.0, 523.0 and 273.0 for the G2, G3a, G3b, G4 and G5 stages of CKD, respectively. FM did not exhibit statistically significant ($p>0.05$) difference across CKD stages, whereas PAL showed a statistically significant difference ($p<0.05$).

Conclusions: Since PAL was significantly reduced towards the later stages in elderly CKD patients, tailored exercise plans and renal rehabilitation programs should be encouraged to maintain moderate PAL.

Key words: CKD, Functional mobility, IPAQ-SF, Physical activity level, TUG test

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PP 70

Association between the work experience and lung function among bus drivers and conductors in selected depots of Sri Lanka Transport Board, Colombo District, Sri Lanka

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Background: Traffic-related air pollution (TRAP) adversely affects respiratory health, especially in bus drivers and conductors due to regular exposure at their work.

Aims: To evaluate the relationship between work experience and lung function among bus drivers and conductors of the Sri Lanka Transport Board (SLTB) of Colombo District

Methods: A descriptive cross-sectional study was conducted among 262 non-smoking male SLTB bus workers selected from the bus depots of Avissawella, Homagama, Kesbewa and Maharagama. Lung function was assessed using a vitalograph alpha touch spirometer and a mini wright peak flow meter. Parameters included FEV_1, FVC, FEV_1/FVC ratio and PEFR. Demographic- and work-related data were collected using a pre-tested, interview-administered questionnaire. Data were analysed using tests at $p<0.05$.

Results: The mean age of participants was 46.2 (SD=7.4) years and their mean work experience was 18.6 (SD=6.9) years. Significant negative correlations were observed between work experience and lung function indicators: FEV_1 (r=-0.40); FVC (r=-0.39); FEV_1% (r=-0.37); FVC% (r=-0.42); and PEFR (r=-0.88), all $p<0.05$. Age also showed significant negative correlations with FEV_1 (r=-0.30); FVC (r=-0.31); FVC% (r=-0.22); and PEFR (r=-0.64), all $p<0.05$. However, the FEV_1/FVC ratio showed no significant change with either work experience or age.

Conclusions: Longer work experience was associated with reduced lung function regardless of age. These findings highlight the importance of occupational health surveillance and policy changes to minimize long-term exposure effects.

Key words: SLTB workers, Lung function, Work experience, Traffic-related air pollution, Spirometry

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PP 71

Perceptions of sleep hygiene among medical students: a qualitative study in the Western Province, Sri Lanka

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Background: Sleep hygiene refers to behavioural and environmental practices that promote good sleep quality. Understanding medical students' perceptions of sleep hygiene is essential for designing targeted interventions to enhance their well-being.

Aims: To explore perceptions related to sleep hygiene among the medical students of state universities of Western Province

Methods: Six focus group discussions (FGDs) were conducted with 59 medical students aged 21–26 years, purposively selected to ensure diversity in gender and academic year. Eligibility included fluency in Sinhala language and a minimum of six months' university enrolment. Students receiving treatment for conditions affecting sleep were excluded. A semi-structured interview guide facilitated discussions. The findings derived from participants were audio recorded. Data transcription, iterative coding and thematic analysis conducted by the principal investigator and an expert researcher.

Results: Five key themes emerged. Most students understood the definition of sleep hygiene and all recognized its negative impact on academics and health. The emerged facilitators to sleep hygiene included physical activity, meditation and comfortable environments, while barriers included academic stress, screen time and poor hostel conditions. Daily practices such as regular sleep schedules, avoiding caffeine and stress management were common. Personal habits, academic pressures and technology use influenced sleep patterns. Students recommended improving hostel conditions, introducing awareness programs, revising exam schedules, and strengthening institutional support.

Conclusions: Recommendations include implementing awareness initiatives, upgrading hostel infrastructure and revising academic timetables to support healthier sleep habits. These interventions are critical for promoting mental and physical well-being and enhancing academic outcomes in university settings.

Key words; Sleep hygiene, Perceptions, Medical students

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PP 72

Knowledge and attitudes of healthcare workers towards electronic documentation of medical records at selected units of National Hospital, Galle, Sri Lanka

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Background: Electronic documentation has become a key advancement in healthcare globally, enhancing the quality of clinical care. Sri Lanka, too, has begun transitioning from paper-based to electronic medical records, though the shift is partial.

Aims: To assess the knowledge, awareness and attitudes towards electronic medical records among healthcare workers at the National Hospital, Galle in Sri Lanka

Methods: A descriptive cross-sectional study was conducted using an interviewer-administered questionnaire on healthcare workers at selected units in the hospital, who were recruited using a convenience sampling method.

Results: The study included 421 healthcare workers (medical professionals, nurses, labourers) and were aged 20–69 years (98.6% response rate). Most were aware of the electronic documentation system (EDS), and 56.8% had positive attitudes towards it. However, 58.4% had poor knowledge of the system. Despite this, 86.2% preferred EDS over handwritten methods. Positive attitude was linked to age, education, occupation and experience, but not gender. No association was found between ICT literacy and knowledge or attitude, nor between knowledge and attitude ($p>0.05$).

Conclusions: The analysis indicates a favourable environment for EDS adoption, despite poor knowledge among most participants. Since EDS was preferred over paper records, improving knowledge through seminars and pilot programs is recommended.

Key words: Electronic documentation, Medical records, Health care workers

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Assessment of sleep quality among infertile females with uterine disorders and ovarian disorders in Sri Lanka

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Background: Infertility is a global health concern affecting physical, emotional and physiological well-being of affected women. Uterine and ovarian diseases are common underlying causes of female infertility. Emerging evidence suggests that poor sleep and infertility are linked to each other. However, how sleep quality differs among infertile females with uterine diseases and ovarian diseases remains largely unexplored and understanding these differences is crucial for holistic patient care.

Aims: To assess and compare the sleep quality of infertile females diagnosed with uterine diseases and ovarian diseases in Sri Lanka

Methods: A descriptive cross-sectional study was conducted among females with fertility disorders (n=276) at the infertility clinic of De Soyza Maternal Hospital, Colombo. Based on medical diagnosis, infertile females were categorized as those with uterine diseases and ovarian diseases. Their sleep quality was assessed using Pittsburgh Sleep Quality Index (PSQI). Data were analysed using tests at p-value of <0.05 as significant.

Results: The majority (n=93; 33.7%) were aged 31–35 years, while 65.2% (n=180) were having uterine diseases and 34.8% (n=96) having ovarian diseases. Those with uterine diseases had a mean (SD) of sleep duration, sleep efficiency and global PSQI score of 5.56 (1.39) hours per night, 85.49 (11.0) and 10.21 (5.05), respectively. Those with ovarian diseases had a mean (SD) sleep duration, sleep efficiency and global PSQI score of 5.98 (1.58) hours per night, 88.59% (9.15) and 8.36 (4.48), respectively. Accordingly, those with uterine diseases showed a significantly poor sleep quality compared to those with ovarian disease ($p<0.05$).

Conclusions: Among infertile females, those with uterine disorders showed poor sleep quality compared to those with ovarian diseases. Thus, the sleep intervention programmes need to be implemented considering these variations in the sleep quality based on the type of infertility disorder.

Key words: Sleep quality, Fertility disorders, Infertility, Reproductive health, Pittsburgh Sleep Quality Index

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PP 74

Prevalence of anxiety, depression and associated factors and reproductive outcomes among married females in Piliyanadala Medical Officer of Health (MOH) Area during the economic crisis (2022-2024), Sri Lanka

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Background: Mental health is increasingly recognised as a global development priority. In Sri Lanka, despite the end of its civil war in 2009, ongoing economic and political instability, exacerbated by ethnic tensions, terrorism, and the COVID-19 pandemic has heightened psychological stress. The 2022 economic crisis, marked by fuel and energy shortages and rising living costs, significantly impacted population well-being. Although women in Sri Lanka have made gains in education and employment, they continue to shoulder primary household and childcare responsibilities.

Aims: To assess the prevalence of anxiety and depression among married females in the Piliyandala MOH Area of Colombo District, Sri Lanka

Methods: A descriptive cross-sectional survey was conducted among 390 women aged 18–40, selected by simple random sampling across 25 public health midwife (PHM) areas. Data on sociodemographic, economic, and reproductive factors were collected, and mental health was evaluated using the DASS-21 tool. Analysis included ANOVA test, chi-squared test and regression.

Results: No significant associations were found between mental health outcomes and ethnicity, religion, education or employment. However, age was significantly associated with anxiety. Economic stressors, particularly reduced family income and husbands' job loss, showed strong links to depression. Reproductive factors such as the number of children and years married had minimal impact.

Conclusions: Socio-economic challenges—especially those triggered by the crisis—play a central role in affecting women's mental health. Further qualitative studies are needed to explore cultural influences, subfertility-related stress, and to inform targeted interventions for women during periods of economic hardship.

Key words: Reproductive outcomes, Anxiety, Depression, Piliyandala MOH Area

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Journal of

THE COLLEGE OF COMMUNITY PHYSICIANS OF SRI LANKA

Aims and scope

Journal of the College of Community Physicians of Sri Lanka (JCCPSL) is the official publication of the College of Community Physicians of Sri Lanka. Its first issue was published in 1995. Mission of the JCCPSL is to encourage, empower and stimulate researchers and health professionals to publish high quality research, which is novel and of public health importance in the local and global context.

JCCPSL is an open-access, peer-reviewed journal, which is published quarterly (four issues per year) from 2017. Currently, it is published as an online journal. It publishes original research articles, reviews, brief reports and short communications to inform current research, policies and evidence based public health practices in all areas that are of common interest to public health practitioners, clinicians and health policy makers.

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