

# Book of Abstracts

## The 2<sup>nd</sup> International Conference on Preventive Medicine and Public Health (Preventive Health 2024)

06-07 June 2024 | Colombo, Sri Lanka

Committee of the Preventive Health 2024

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Book of Abstracts of the 2nd International Conference on Preventive Medicine and Public Health (Preventive Health 2024)

Edited by Prof. Dr. Sevda Lafçi Fahrioğlu and Dr. Piyusha Majumdar

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## MESSAGE FROM THE CONFERENCE CO-CHAIR Preventive Health 2024



To all health professionals from many parts of the world who believe that the basis of medicine is to "protect" first.

At the Preventive Medicine and Public Health Congress, a global platform held for the second time this year, we will delve into rich information, research findings, and innovative approaches. This collective effort aims to protect human health worldwide and enhance the existing protection service, making your participation crucial in this global endeavour.

In the period from the birth of preventive medicine, which aims to prevent the emergence of diseases or reduce their risks, to today's precision medicine applications, the perspective on healthcare delivery has also changed and developed considerably. As the quality and quantity of modern health services have increased within the scope of specialization, the importance of preventive measures is becoming increasingly evident. Community interventions such as vaccination strategies, lifestyle changes, and effective health policy implementations play an important role in improving the overall health of the population on the path towards a healthier, more resilient society and can also reduce the financial burden of diseases in terms of the health economy. Therefore, access to preventive health services and their implementation are an indispensable part of health policies.

We invite you to engage with the diverse perspectives presented at this inspiring congress. Your active participation is not just a contribution, but a significant step towards achieving better health outcomes for all. Your voice and insights are integral to our collective journey towards healthier individuals and society.

This information will be the seeds of transformative change in our approach to public health. Let's benefit from the power of preventive medicine and preventive health practices together to build a healthier, more hopeful future. It will be our honour to be with you as we explore these new horizons where preventive and precision medicine combine to shape a more hopeful, healthier tomorrow.

With our deepest respect,  
May you always be healthy!

*Sevda Lafci Fahrioglu, MD. PhD.  
Faculty of Medicine,  
Cyprus International University,  
Cyprus*

## MESSAGE FROM THE CONFERENCE CO-CHAIR Preventive Health 2024



### ***“Preventive Medicine: Proactive Path to the Healthier You”***

I extend a heartfelt welcome to all the distinguished public health professionals and enthusiasts who have gathered to attend “2<sup>nd</sup> International Conference on Preventive Medicine and Public Health”. Preventive medicine is a powerful approach to healthcare that focuses on preventing disease and promoting overall well-being. It's a shift from reactive treatment to proactive care, empowering individuals to take charge of their health.

This conference has culminated months of dedicated effort, all fueled by our passion for preventive medicine and public health. I am deeply grateful to all the partners and sponsoring organizations for extending their support and collaboration.

Our shared commitment to public health unites us, and the focus of our discourse at this conference centres around two critical aspects: preventive medicine and public health; mere treatment is not effective enough in solving the global health crises hence it is imperative that during the conference we must analyze and evaluate the scopes and dimensions of Preventive Medicine in shaping the global healthcare system in novel and effective strategies.

The organizers have meticulously curated a program featuring renowned speakers, thought-provoking sessions, and ample networking opportunities – all designed to foster a vibrant exchange of ideas and advancements in this critical field. We look forward to a stimulating and productive conference!

*Dr. Piyusha Majumdar  
Associate Professor  
IIHMR University, India*



## MESSAGE FROM THE ACADEMIC PARTNER Preventive Health 2024



Dear Conference Delegates,

On behalf of the Nepalese Society of Community Medicine (NESCOM), I would like to thank iConferences for partnering with us academically at the 2<sup>nd</sup> International Conference on Preventive Medicine and Public Health. This hybrid event will be held on June 6-7 in Colombo, Sri Lanka.

We believe this conference will provide a valuable platform for researchers from around the world to come together and contribute to evidence-based decision-making in global public health. NESCOM was honoured with the opportunity to review conference abstracts. Our team diligently reviewed all submissions and submitted them to the conference organizers in a timely manner. The abstracts we reviewed were comprehensive and well-aligned with the conference goals.

We wish all participants a successful and productive conference!

*Dr. Prnil Man Singh Pradhan*  
*President*  
*Nepalese Society of Community Medicine (NESCOM)*  
*Nepal*

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## **PAPER SESSION (A)**

# **PUBLIC HEALTH CHALLENGES AND STRATEGIES DURING COVID 19 PANDEMIC**





A1

[01]

## COVID-19 CONTACT TRACING EXPERIENCE AT A TERTIARY HEALTHCARE CENTER IN SAUDI ARABIA

Muthalib, H.F.A

University Hospitals of Leicester, United Kingdom

As of May 2023, the end of the pandemic, the cumulative number of COVID-19 cases reached more than 841,000 cases. Healthcare workers (HCWs) especially have been at the frontline during this pandemic and are at a higher chance of contracting COVID-19. Approximately half of all high-risk exposures were to healthcare personnel with COVID-19. While several tools for contact tracing were developed for the general public, contact tracing for infectious diseases in the healthcare setting is limited, and global testing of HCWs, or in-hospital digital tracing, is not performed in most facilities. The King Faisal Specialist Hospital and Research Center (KFSH&RC) collaborated with the Infection Control and Health Information Technology Affairs (HITA) to create an automated COVID-19 contact tracing tool specifically for HCWs who worked at the institute. This study aims to describe the contact tracing experience at KFSH&RC. A retrospective study was conducted to describe the use of an automated tool that was developed to assist in the contact tracing process and that was to be used by KFSH&RC employees who had been in contact with a COVID-19-positive individual. This tool is utilized for the early identification of possible COVID-19 cases and risk stratification of the exposed individuals. The tool can be accessed through the KFSH&RC website; it also collects information about the COVID-19 exposure rate among the different departments such as administration, capital projects/facilities, and healthcare at a tertiary care hospital in Riyadh, Saudi Arabia. The tool has been utilized 7,353 times by contact cases. Approximately 7% of those tested later developed a COVID-19 infection. When assessing the positivity rates per department, The Environmental Services Department had the highest positivity rate of 28.21%, followed by Health Information Technology and Analytics (HITA), and then the Central Transportation Department. This study acts as the first of its kind to describe the successful use of the healthcare contact tracing system in one of Saudi Arabia's largest hospitals (KFSH&RC) and describe the infection trends in different departments of the hospital. Through the tracing system, the departments with the highest COVID-19 infection occurrences at the hospital were identified in a timely manner, and safety protocols were implemented.

**Keywords:** Pandemic, healthcare providers, infection, COVID-19



A2

[02]

## FACILITATORS AND BARRIERS OF COVID-19 VACCINE AMONG SERBIAN MEDICAL STUDENTS

Vujcic, I, Maksimovic, K.

Institute of Epidemiology, Faculty of Medicine, University of Belgrade, Serbia

Medical students as future healthcare professionals represent vaccination role models and have an important role in promoting the importance of vaccination. The aim of this study was to examine the COVID-19 vaccine acceptance and associated factors among Serbian preclinical and clinical medical students. In this section, you can explain the way you followed to do the study. A cross-sectional study was conducted at the Faculty of Medicine, University of Belgrade among third- and sixth-year students in December 2022 and January 2023. Data from students were collected in classrooms before the start of compulsory practical sessions using specially designed questionnaire. In data analysis Chi-square test was used. A total of 730 medical students participated in this study, 332 third-year and 398 sixth-year students (average age  $21.37 \pm 1.17$  and  $24.37 \pm 1.03$  respectively). There were 242 female students (72.9%) in the third year of study, and 260 (65.3%) in the sixth year. Sixth year students were significantly more vaccinated (94.5% vs 87.3%,  $p=0.001$ ). Sixth-year medical students significantly more often regularly followed information about COVID-19 vaccine and received informations from the Internet in comparison with third-year students. The majority of both groups trusted health authorities and teachers and associates at the Faculty of Medicine when they recommended vaccination. The most common reason for being vaccinated against COVID-19 were: protection of people nearby from illness (64% third year and 71% sixth year), availability of vaccine and recommendation by healthcare workers, and the most common reason for not being vaccinated were: belief that COVID-19 vaccines were not tested properly and fear of side effects. Significantly more often, sixth year students believe that immunity after natural COVID-19 infection is better, and that COVID-19 is not a health risk. The result of this study can facilitate identification of strategies that could increase the vaccination intention among medical students such as increased education and curriculum development regarding COVID-19 vaccination and educational and marketing strategies. Medical students will share such knowledge to their peers, families, patients and the general public that may increase overall COVID-19 vaccination coverage. This study revealed high degree of responsibility of Serbian medical students and also high degree of trust in health care workers and health authorities. Ongoing vaccine surveys will be needed to evaluate shifting attitudes around COVID-19 vaccination in this population.

**Keywords:** *Medical students, COVID-19, vaccine, cross-sectional study*



A3

[03]

### **COVID-19 INFECTION AMONG HEALTHCARE WORKERS AT A TERTIARY HEALTHCARE HOSPITAL**

Muthalib, H.F.A

University Hospitals of Leicester, United Kingdom

SARS-CoV-2 or COVID-19 virus was the culprit of the global pandemic that began in 2019. With alarming mortality rates reaching sky-high worldwide, the virus prompted the masses to switch to online working. However, this was not feasible for healthcare workers (HCWs) exposed to a higher-than-normal risk of acquiring COVID-19 infection. This study aims to observe the prevalence of COVID-19 positivity among the various areas of a healthcare facility in Saudi Arabia. A cross-sectional study of positive employees among all departments at a tertiary care hospital in Riyadh, Saudi Arabia, such as administration, capital projects/facilities, and healthcare. The study included all hospital employees-permanent staff, rotating physicians, and trainees-who tested positive for COVID-19 between March 20, 2020 and December 30, 2020. It was found that HCWs had the most significant number of infected individuals with nursing staff being the predominant demographic. This was followed by the capital projects/facilities departments, of which the environmental services staff were the most infected. You can outline the practical or social implications that arise from the intervention and summarize key points of advice for other professionals. It is pertinent that strict protocols be taken by hospital management to limit the spread of future infectious diseases within hospital settings. This includes the provision of personal protective equipment (PPE) and adequate education on its proper usage, alongside regular surveillance of staff with regard to adherence and early detection of symptoms.

**Keywords:** Pandemic, healthcare providers, infection, COVID-19



A4

[04]

**SUPPLY CHAIN CHALLENGES OF PERSONAL PROTECTIVE EQUIPMENT,  
AND METHODS OF MITIGATION AMIDST COVID-19 PANDEMIC: A  
QUALITATIVE STUDY FROM SRI LANKA**

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<sup>1</sup>Department of Community Medicine and Family Medicine, Faculty of Medicine, University of Moratuwa, Sri Lanka,

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Personal Protective equipment (PPE) is essential for healthcare workers to prevent the disease spread. With COVID-19 pandemic, although demand for PPE increased, its supply chain was adversely affected. This study describes the supply chain challenges of PPE and mitigation measures during COVID-19 pandemic in Sri Lanka, a developing country in South East Asia. In-depth interviews were conducted among officials (N=14), who were directly involved with PPE procurement to the Health Ministry of Sri Lanka, at the Medical Supplies Division, State Ministry of Production Supply and Regulation of Pharmaceuticals and State Pharmaceutical Corporation. Study sample was collected until data saturation. A semi-structured interviewer guide was used to assess the PPE supply chain challenges and mitigation measures undertaken by Sri Lanka, during the COVID-19 pandemic. Thematic analysis was done. It was revealed from the study that the preparation for an un-interrupted PPE supply prior to pandemic hit the country was unsatisfactory. High cost; unavailability of certified suppliers; unavailability of PPE globally and locally; lack of raw materials; quality failure; delays in procurement procedure; increased demand and its dynamicity; and lack of funds challenged the PPE supply chain. Intergovernmental negotiations; encouraging local production; purchasing from local suppliers; issuing guidelines for PPE usage; and obtaining support from development partners/INGOs were the mitigation strategies that were undertaken. Sri Lanka, as a country with limited resources, has faced several PPE supply chain challenges during the pandemic. Policy makers therefore, need to undertake measures to improve the readiness prior to similar disasters in the future. In addition, encouraging local PPE production, establishing quality assurance mechanisms, development of relevant guidelines and improving staff capacity on the procurement process are recommended to face disasters of such caliber in the future.

**Keywords:** Challenges, COVID-19, PPE, supply chain, qualitative



## **PAPER SESSION (B)**

# **EXPLORATION OF INNOVATIONS FOR SHAPING THE FUTURE OF HEALTHCARE**



B1

[05]

## EMPOWERING LESOTHO'S TOMORROW: YOUTH-DRIVEN INNOVATION IN PREVENTIVE HEALTHCARE

Ferreira, S. M.<sup>1</sup>, Muthengi, K.<sup>1</sup>, Mohale, M.<sup>1</sup>, Mokhameleli, S.<sup>2</sup>,  
Mathosi, L.<sup>2</sup>.

<sup>1</sup>UNICEF Lesotho Country Office, UNICEF

<sup>2</sup>Lesotho National Red Cross

This study is rooted in the imperative to incorporate the voices of youth into the development of preventive healthcare strategies in Lesotho. Recognizing the gap in youth-centric approaches, the study sought to understand the health-related challenges faced by children in Lesotho and to leverage their insights for crafting innovative, preventive, and participatory health interventions. Adopting a qualitative research framework, the study engaged a purposive sample of 180 children from Lesotho's distinct ecological zones. Data were collected using Participatory Learning Approach tools, including Social and Resource Mapping and Cause and Effect Analysis, supplemented by Key Informant Interviews. The study team conducted 18 Focus Group Discussions to gain a comprehensive understanding of the health issues from the children's perspectives. The study unveiled a spectrum of health challenges articulated by the youth, ranging from malnutrition due to climate change to risks associated with long journeys to school. The children's narratives revealed an overarching theme of resilience and a desire for active participation in health-related policymaking. Their collective voice offered a unique lens through which preventive health measures could be envisioned and designed. The implications of this study are two-fold. Practically, it provides a framework for health professionals and policymakers to incorporate children's perspectives into preventive health strategies. Socially, it advocates for a shift in public health discourse, emphasizing the need for inclusive policy development that considers the unique needs and rights of young populations. The study underscores the transformative potential of integrating children's narratives into the planning and execution of health interventions. The findings advocate for a participatory approach in preventive healthcare, suggesting that such inclusion can lead to more effective, rights-based, and child-centered health solutions. These insights, while derived from Lesotho's context, have the potential to inform broader public health strategies in similar settings.

**Keywords:** Preventive Healthcare, child participation, qualitative research, Lesotho, public health policy

B2

[06]

## SOCIAL DYNAMICS IN THE PREVENTION AND CONTROL OF MALARIA IN THE SOUTHWEST REGION OF CAMEROON

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Cultural beliefs and practices significantly influence health-seeking behaviours in communities, even when faced with life-threatening diseases like malaria. This study explored the sociocultural barriers to utilising malaria control and prevention services in the South West region of Cameroon, precisely in the Fako Division. Qualitative data were collected through structured interviews to understand the preferred treatment methods for malaria, the rationale behind the disease's continuous prevalence within the community, and the low usage of prevention methods prescribed in the hospitals. The data were analysed using a thematic technique. This study found that herbal medical practices are deeply rooted in the community's culture and need to be more quickly supplanted by modern medical practices. The study found that the resistance to malaria prevention methods was fueled by a lack of awareness about the importance of malaria prevention and control, contributing to the high malaria prevalence rate in the community. Also, the study found that the current healthcare system needs to be culturally sensitive, potentially leading to a lack of trust and confidence among community members. Additionally, financial constraints significantly impact the utilisation of preventive and treatment measures like mosquito nets, health centres, and community health workers. These findings aligned with the Health Belief Theory (HBT), which explains that individuals' beliefs and attitudes towards malaria prevention in these communities constitute a significant barrier to malaria eradication. Community members perceive malaria as a severe disease and believe they are at risk of contracting it, leading to action due to susceptibility. However, traditional remedies are preferred due to perceived barriers to mosquito nets, such as cost, lack of access, and perceived ineffectiveness. The study concluded that a culturally sensitive approach to malaria treatment and prevention, built on the community's beliefs and practices, can improve health outcomes. Therefore, organisations in charge of malaria prevention must adapt their approach to align better with the community's cultural values. The study further recommended that education and awareness campaigns about malaria prevention and control should be tailored to the community's cultural realities.

**Keywords:** Malaria, socio-cultural, prevention, control



B3

[07]

## EXPLORING THE RELATIONSHIP BETWEEN THE FULL-RANGE LEADERSHIP THEORY AND ACCEPTANCE OF ELECTRONIC MEDICAL RECORD IN PRIMARY CARE: A CONCEPTUAL ANALYSIS

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This study aims to investigate the relationship between the Full-Range Leadership Theory (FRLT) and the acceptance of Electronic Medical Records (EMRs) in Primary Care Settings. By analyzing existing literature and theoretical frameworks, this conceptual analysis seeks to elucidate how different leadership styles influence healthcare professionals' perceptions and behaviors regarding EMR adoption. This conceptual analysis draws upon literature from healthcare management, leadership theory, and technology acceptance models. The Full-Range Leadership Theory (FRLT), encompassing transformational, transactional, and laissez-faire leadership styles, serves as the theoretical framework for exploring its implications for EMR acceptance in primary care settings. Relevant studies, theoretical models, and empirical evidence are synthesized to develop a comprehensive understanding of the proposed relationship. Transformational leadership is hypothesized to positively influence EMR acceptance by promoting innovation, collaboration, and a shared vision of technology integration. Transactional leadership may foster compliance with EMR usage through reward systems and monitoring mechanisms but may lack the motivational aspects necessary for genuine acceptance. Conversely, laissez-faire leadership is expected to impede EMR acceptance by creating uncertainty and ambiguity regarding expectations and organizational goals. Understanding the relationship between leadership styles and EMR acceptance has practical implications for healthcare organizations seeking to enhance technology adoption and implementation processes. By cultivating transformational leadership behaviors that inspire innovation and collaboration, organizations can create a supportive environment conducive to EMR acceptance and utilization. Furthermore, leadership training programs tailored to develop effective communication, change management, and technological literacy skills can empower healthcare leaders to navigate the complexities of EMR integration in primary care settings. This conceptual analysis provides insights into the critical role of leadership in shaping healthcare professionals' attitudes and behaviors toward EMR adoption in primary care settings. By leveraging the principles of the Full-Range Leadership Theory, healthcare organizations can develop strategies to foster a culture of innovation, collaboration, and technology acceptance, ultimately leading to improved patient care outcomes and organizational performance. Future research should focus on empirical validation of the proposed relationships and the development of practical interventions to support effective leadership in EMR implementation initiatives.

**Keywords:** The full-range leadership theory (FRLT), EMR acceptance, conceptual analysis, primary care setting





B4

[08]

**EXPLORING THE BARRIERS AND FACILITATORS TO IMPLEMENTING  
TUBERCULOSIS PREVENTIVE TREATMENT AMONG HOUSEHOLD  
CONTACTS OF TUBERCULOSIS PATIENTS IN MOULVIBAZAR DISTRICT,  
BANGLADESH**

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Preventing tuberculosis (TB) through preventive treatment is crucial for TB elimination. Although many countries, including Bangladesh, have introduced TB Preventive Treatment (TPT) for household contacts, research on implementation gaps and facilitators are lacking. This study aimed to explore contacts' perception about TPT and the barriers and facilitators to TPT implementation. This exploratory qualitative study was conducted in Moulvibazar district, Bangladesh. Participants were chosen through purposive sampling and in-depth interviews were conducted among them. A thematic analysis approach investigated the factors influencing the high or low- completion TPT among household contacts. Household contacts were reluctant to start TPT as they questioned the reasoning for treatment for 'no disease' and were concerned about drug side effects and possible stigma. However, counseling contacts before starting TPT, perceived susceptibility to TB, family support, free healthcare services, and outreach programmes were identified to have positive impact on TPT uptake and completion. Adopting contact-oriented strategies are likely to improve the overall TPT outcome in Bangladesh. s study. If you are building novel research, describe the problem that you have solved. If you are presenting previous research, briefly explain the importance of the study. You can use this section to convince the purpose of the study to readers. You can mention the main finding and key argument here.

**Keywords:** Tuberculosis preventive treatment, TPT, household contacts

## THE IMPACT OF SOCIAL MEDIA ADDICTION ON THE SLEEP QUALITY OF UNDERGRADUATES; A CROSS-SECTIONAL STUDY

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The extensive use of social media among emerging adults (18-29 years) has raised concerns regarding its impact on various aspects of life, particularly on the quality of sleep among emerging adult undergraduates of Sri Lanka. This study aimed to assess social media usage and its effect on the quality of sleep among undergraduates of a selected private higher education institute in Sri Lanka. A descriptive cross-sectional survey was conducted among 123 consenting undergraduates, selected randomly, from a selected private higher education institute in Sri Lanka. A pretested self-administered questionnaire consisting of demographic details, Bergen Social Media Addiction Scale (BSMAS) and Pittsburgh Sleep Quality Index (PSQI) was administered via a Google Form. The BSMAS and PSQI were scored according to standard scoring-protocols. BSMAS scores exceeding 26 (6-30) indicate Problematic Social Media Use (PSMU). While Global PSQI scores (sum of 7 component scores) which are >5 indicates “poor sleep quality”. Ethical approval was obtained from the ethics review committee of KIU (KIU/ERC/21/129). Among the 123 participants, the majority were single (70%, n=86), females (89%, n=110), enrolled in Nursing degree program (50%, n=62) with a mean age of 26±5 years. The average duration of social media usage was 133±105 minutes per day, with most participants (90%, n=111) using mobile phone devices. WhatsApp emerged as the most popular social media platform, used by 43% of participants (n=53). The BSMAS scores indicate 99% (n=122) at low risk of PSMU (Median 14, IQR=5). Global PSQI scores indicate 93% (n=114) with poor sleep quality (Median 7, IQR=2). A positive correlation (p=0.073) was observed between Global PSQI score and BSMAS score indicating that problematic use of social media affects the quality of sleep among undergraduates. The results indicated that undergraduates of the selected higher education institute experienced poor sleep quality but had a low risk of problematic social media usage. Therefore, it is recommended to implement strategies to improve sleep quality by reducing social media usage.

**Keywords:** Sleep quality, PSQI, social media, Sri Lanka

B6

[10]

**PHYSICAL ACTIVITY AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS WHO ARE ATTENDING THE DIABETIC CLINIC IN ARMY HOSPITAL, COLOMBO, SRI LANKA: A CROSS-SECTIONAL STUDY**

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Regular physical activity (PA) helps control blood sugar, improves insulin sensitivity, and allows healthcare providers to identify and intervene early, with high-risk patients to prevent or delay Type 2 Diabetes Mellitus (T2DM) and its complications. Therefore, this study aimed to assess the level of physical activity among patients with Type 2 Diabetes Mellitus (T2DM) attending the Diabetic clinic in Army Hospital, Colombo, Sri Lanka. A descriptive cross-sectional study was conducted among randomly selected 422 voluntarily consented patients with T2DM attending the Diabetic clinic in Army Hospital. The data were collected using a validated International Physical Activity Questionnaire (IPAQ). The level of physical activity (PA) was categorised based on the scores of Weekly Metabolic Equivalent of Task (MET). Data was analysed using descriptive statistics via IBM SPSS version 25. The majority of the participants were males (63%, n=265) with an average age of 47±15 years. The mean PA of the participants was 1001±1254.69 MET minutes per week. The mean weekly MET minutes were 329.19±792.60 for vigorous physical activity, 193.60±390.52 for moderate physical activity, and 477.75±600.35 for walking. Nearly half of the patients with T2DM (52%, n=218) were minimally active (<600 weekly METs). Whilst 35% (n=146) were moderately active (≥600 to <3000 weekly METs), and only 13% (n=58) engaged in health-enhancing physical activity (≥3000 weekly METs). The data indicates that the majority of participants with T2DM exhibited low levels of PA. This highlights a significant need for interventions aimed at increasing the PA levels of patients with T2DM for better health outcomes.

**Keywords:** Physical activity, type 2 diabetes mellitus, Sri Lanka



B7

[11]

## DEVELOPING A PUBLIC HEALTH WORKFORCE - WITH FOCUSED PARTNERSHIPS

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Developing a robust public health workforce is crucial for addressing current and emerging health challenges. Focused partnerships and appropriate educational opportunities are essential components of this endeavor. Community Ophthalmology involves promoting eye health and blindness prevention through programs utilizing methodologies of public health, community medicine and ophthalmology; particularly targeting under-served populations. Combining these methods within the curriculum and determining key partnerships in the community and the health-care industry was the hallmark of this project. We strategically partnered with key government institutions and non-profit NGOs to organize health screening activities targeting the marginalized visually impaired community. Distinctive prospects were offered for the medical students to learn in a more participative and liable manner. Student involvement ensured a significant and purpose-led learning experience. Consolidation of academic activities prompted a sense of social accountability and means to societal contributions.

**Keywords:** Ophthalmology, education, public health



## **PAPER SESSION (C)**

# **MULTIDISCIPLINARY CHALLENGES IN PROMOTING HEALTHCARE AND WELL- BEING**

C1

[12]

## ASTHMA CONTROL, SLEEP QUALITY AND PHYSICAL ACTIVITY AMONG PATINETS WITH ASTHMA IN COLOMBO, SRI LANKA

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Global asthma network has Sri Lanka marked as one of the highest prevalence countries. Physical activity and quality sleep has been shown to produce health benefits to adults with asthma; however, the association between physical activity, sleep quality and asthma control is unknown. The aims of the study were to determine: the level of asthma control, physical activity, sleep quality and its associations amongst adults with asthma. A descriptive cross-sectional study was conducted among 180 patients diagnosed with asthma attending to chest clinics at Colombo South Teaching Hospital (CSTH) and Base Hospital, Homagama. An interviewer administered questionnaire used to determine baseline data. Asthma control was assessed using Asthma Control Test and lung function tests (spirometry/PEFR). Airway inflammation was measured using Fraction of exhaled NO analyzer (FeNO). Sleep quality was determined by using the Pittsburg Sleeping Quality Index and physical activity level was determined by the International Physical Activity Questionnaire. 60% were females. The mean PEFR, FEV1, FVC, FEV1/FVC and FeNO were  $192.54 \pm 78.50$  L/min,  $1.42 \pm 0.51$  L,  $2.07 \pm 0.56$  L,  $0.67 \pm 0.14\%$ ,  $18.47 \pm 16.01$  ppb. only 33.33% had controlled asthma. ACT scores of males was significantly higher than of females ( $p = 0.035$ ). 64.4% of patients had deficient sleep quality. The level of Physical activity was moderate at 43.33% and low at 38.89%. Although there was a significant association between sleep quality and asthma control ( $p=0.000$ ) at it was a positive correlation ( $p=0.000$ ). Physical activity is also significantly associated with asthma control ( $p=0.001$ ). It was a positive correlation between ( $p=0.030$ ). There was an association between sleep quality, physical activity and asthma control. Sleep quality is a marker of asthma control and affects the health status of asthma patients. Physical activity is a possible protective factor against development of episodes of asthma.

**Keywords:** Asthma, adults, physical activity, sleep quality



C2

[13]

## FACTORS RESPONSIBLE FOR RISE OF CHRONIC DISEASES & NEED FOR PREVENTION

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The modern way of living in an urbanized and industrialized world, which is aided by science and technology, has contributed to the rise of major chronic diseases. Some of the major chronic diseases or non-communicable diseases (NCDs) like cardiovascular diseases, hypertension, diabetes, cancer, chronic respiratory diseases, and mental health issues are leading causes of adult premature death and disability in low- and middle-income countries and are major causes of death and disability in developed countries. According to most public health experts, these diseases can be prevented. Governments across the world need to take radical and urgent measures to prevent premature deaths and disabilities. The purpose of the study is to highlight the risk factors behind the unprecedented rise of chronic diseases or major NCDs like cardiovascular disease, diabetes, cancer, mental health issues, chronic respiratory disease, and ways of preventing NCDs. This study is an effort to spread awareness about the need for the prevention of major NCDs. There have been efforts taken by the governments, but they are not enough to tackle the issue of NCDs, especially in low- and middle-income countries. Data has been collected from various government organizations, World Health Organizations, and other international health organizations. Etc., who believes that there is an unprecedented rise in major NCDs such as cardiovascular disease, diabetes, cancer, mental health issues, chronic respiratory disease, etc., especially in low- and middle-income countries. There is an increase in the number of young people with these chronic conditions. More research and data show that patients suffer and must receive lifelong treatment for these chronic conditions, as do their families. These diseases bring a huge economic burden to individuals, families, and the whole country. If the rise of major chronic diseases, or NCDs, remains unchecked, our future generations will be unhealthy and at high risk for premature death and disability. Also, a detailed study and data are required on risk factors leading to the rise of chronic diseases.

**Keywords:** Chronic diseases, non-communicable diseases (NCDs), Young People, Health Promotion



C3

[14]

### WHAT FACTORS INCREASE THE RISK OF HAVING BRONCHIECTASIS- AN UNMATCHED CASE-CONTROL STUDY

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Bronchiectasis is a disease with complex aetiology and found to have a rising prevalence globally. A wide range of risk factors have been identified; however, the exact causes of bronchiectasis remain unknown. In addition, these identified risk factors are lacking the support of scientific evidence due to being a neglected disease for so long. The aim was to determine the risk factors for bronchiectasis among patients attending respiratory clinics in government healthcare institutions in the Colombo District, Sri Lanka. A clinic-based unmatched case-control study was performed to determine the risk factors for bronchiectasis among patients attending respiratory clinics in government healthcare institutions in Colombo District, Sri Lanka. There are three government healthcare institutions with respiratory clinics headed by Consultant Respiratory Physicians; namely Central Chest Clinic Colombo, Colombo South Teaching Hospital and Sri Jayawardenapura General Hospital. Therefore, all three clinics were included in the study setting, which was carried out from May 2023 to June 2023. A case was defined as a newly diagnosed bronchiectasis patient who was diagnosed clinically and radiologically with the exclusion criteria of patients who were less than 18 years of age, foreign nationals, patients with bronchiectasis secondary to cystic fibrosis and traction bronchiectasis and mentally impaired patients. A control was other respiratory patients, who did not have a clinical or a radiologically confirmed diagnosis of bronchiectasis. Apart from the exclusion criteria for cases, additionally other criteria were applied for controls, which was patients who did not have an established diagnosis or were under investigation. The sample size was calculated using the Open Epi software with a cases-to-control ratio of 1:1. The number of cases were 123 patients and the controls were 123 patients. An interviewer-administered bronchiectasis risk factor questionnaire developed by the principal investigator, which was validated, piloted and pretested was used as the study instrument. The risk factors were identified by performing multivariate logistic regression analysis. Twelve independent and dependent variables were identified by initial bivariate analysis, which included gender, age category, religion, employment status, having coronary vascular diseases, having rheumatoid arthritis, having other chronic respiratory diseases, having a history of pulmonary tuberculosis, having childhood measles, having a family history of respiratory diseases, having exposure to indoor air pollution and occupational exposure to chemicals. Then the multivariate analysis was performed to identify the risk factors after adjusting for confounders. Thus, the risk factors for bronchiectasis found to be significant associated with bronchiectasis were female gender (aOR=2.27; 95%CI=1.25-4.13), age  $\geq$ 60 years (aOR=2.35; 95%CI=1.13-4.87), having CVD (aOR=2.12; 95%CI=1.08-4.16), having RA (aOR=3.28; 95%CI=1.02-10.51), having other CRDs (aOR=3.19; 95%CI= 1.76-5.80), history of PTB (aOR=3.47; 95%CI=1.66-7.73), exposure to indoor air pollution (aOR=2.56; 95%CI=1.25-5.25) and occupational exposure to chemicals (aOR=2.39; 95%CI=1.30-4.39) after adjusting for confounders. The risk factors have been identified therefore communicating these findings among healthcare providers is





paramount, to consider bronchiectasis in their differential diagnosis and to identify strategies to reduce exposure to these risk factors and thus to reduce the burden of bronchiectasis.

**Keywords:** Bronchiectasis, risk factors, case-control, unmatched



C4

[15]

## EXPENDITURE OF ALCOHOL USE AMONG MALE SECURITY PERSONNEL IN SRI LANKA

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Militaries worldwide are known to have higher prevalence and heavier alcohol use than the general population. Higher consumption patterns of alcohol can invariably lead to increased purchasing of alcohol. Hence, this study aims to describe the expenditure of alcohol use among male military personnel in the Sri Lanka Army. A cross-sectional study among male army personnel in active service (n=1337) was conducted using multistage sampling. A self-administered questionnaire and the interviewer-administered Alcohol Use Disorders Identification Test was used. Expenditure to purchase alcohol in the past one month was calculated among the current drinkers (past 30 days). The median expenditure, inter-quartile ranges (IQR) and expenditure as a percentage of the median total monthly income were calculated. A current drinker (past 30 days) had a total median personal expenditure of Rs. 2600.00 (IQR Rs. 3700.00) for alcohol use in the past one month which accounted for 5.5% of the median total income. Within the users of each specific drink, the highest median expenditure for the past one month to purchase was reported for arrack, whiskey and gin at Rs. 3000 each. The median total expenditure as a percentage of total income increased with decreasing income levels. The high expenditure to purchase alcohol is concerning in the light of the ongoing economic crisis. This can be used as compelling evidence in health education to army personnel. The amount of expenditure to purchase alcohol for a month was found to be substantial and can result in serious negative repercussions to the current drinkers in the Sri Lanka Army especially those with lower income levels.

**Keywords:** Current drinker, expenditure, income, army

C5

[16]

## UNDERSTANDING WORK ENVIRONMENTS OF THE TRUCK DRIVERS ITS INFLUENCE ON PHYSICAL FATIGUE

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The purpose of this study is to comprehensively understand the work environments of truck drivers and their influence on physical fatigue. By exploring factors such as prolonged driving hours, sleep quality, environmental stressors, and regulatory frameworks, the study aims to identify key determinants of physical fatigue among truck drivers, particularly in the context of India. Ultimately, the study seeks to provide insights that can inform interventions, regulatory reforms, and improvements in workplace conditions to enhance the safety and well-being of truck drivers. The study followed an observational cross-sectional analytical research design, employing a quantitative approach to data collection. Data was collected from 300 truck drivers operating on major National Highways, focusing on freight routes covering specific regions in India between November 2022 to June 2023. A structured questionnaire was applied to collect information on demographic factors, work conditions, and fatigue levels for Fatigue Severity Scale (FSS) were applied. Probability proportional to size (PPS) sampling method was applied to determine the sample size, ensuring representation across various trucking routes. Descriptive statistics and multivariate logistic regression analysis were used to analyse the data, identifying associations between independent variables and fatigue levels among truck drivers. The paper findings provide valuable insights for stakeholders, including policymakers, industry regulators, and trucking companies, to develop targeted interventions and regulatory reforms aimed at mitigating fatigue-related risks.

**Keywords:** Fatigue and sleep deprivation, long-haul truck drivers, physical fatigue, multi axel truck, occupational risk factors, work environment, environmental stressors, mental health

C6

[17]

**THE SELF-ESTEEM AMONG EMERGING ADULTS IN COLOMBO DISTRICT,  
SRI LANKA: CROSS SECTIONAL STUDY**Atshaya, B.<sup>1</sup>, Charuni, T.M.J.<sup>2</sup>, Jayamaha, A.R.<sup>2</sup><sup>1</sup>Department of Psychology, Faculty of Behavioural Science, KIU, Sri Lanka<sup>2</sup>Research and Innovation Division, KIU, Sri Lanka

Self-esteem plays a crucial role in various aspects of an individual's life, including mental health, emotional well-being, resilience, relationships, performance, behavior, decision-making, social influence, and self-compassion. Developing and maintaining healthy self-esteem is essential for leading a balanced, fulfilling, and productive life. American Psychological Association defined self-esteem as “the degree to which the qualities and characteristics contained in one’s self-concept are perceived to be positive.” The transitional nature of the emerging adulthood (18 to 29 ages) may impact the level of self-esteem. Hence, this study aimed to investigate the self-esteem among emerging adults. The descriptive cross-sectional study was conducted among conveniently selected 384 emerging adults in Colombo district. Ethical approval was obtained from the Ethics Review Committee at KIU (KIU/ERC/23/162). A self-administered questionnaire was used to collect the data. The ten-item Rosenberg Self-Esteem Scale (RSES) was utilized to assess the self-esteem among emerging adults in Colombo district. Based on RSES score (score ranged 0 – 30) self-esteem classed as low (< 15), normal (15 – 25) and high ( $\geq 25$ ). In results, most of the participants were males ( $n=226$ , 58.9%) with the mean age of  $23\pm 3$  years. Of, them 44.5% ( $n=171$ ) belonged to nuclear families. Considering self-esteem of the emerging adults, the mean (SD) RSES score was  $14.6\pm 2.7$  and 43.7% ( $n=173$ ) reported low self-esteem, 53% ( $n=210$ ) reported normal level of self-esteem, and 0.3% ( $n=1$ ) reported a high self-esteem. There was a statistically significant association found between family type and self-esteem ( $\chi^2 = 13.05$ ,  $p = 0.04$ ). The study concluded that a considerable proportion of emerging adults are having poor self-esteem and authors recommend further studies to devise interventions for uplifting the self-esteem among emerging adults in Colombo district.

**Keywords:** Self-esteem, emerging adults, Sri Lanka



C7

[18]

### **AWARENESS REGARDING THE ORAL HEALTH AMONG PATIENTS ATTENDING THE NATIONAL DENTAL HOSPITAL IN COLOMBO, SRI LANKA**

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Awareness of good oral healthcare practices prevents cavities, gum diseases, and bad breath, enhancing overall well-being and self-confidence. Therefore, this study aimed to evaluate awareness regarding the oral health among patients at National Dental Hospital in Colombo, Sri Lanka. A descriptive cross-sectional study was conducted among conveniently selected 212 patients attending the National Dental Hospital in Colombo, Sri Lanka. Data were collected through an interviewer administered questionnaire, covering demographic factors, awareness levels, and oral hygiene practices. Ethical approval (KIU/ERC/22/072) was obtained from the KIU Ethics Review Committee. Data analysis employed descriptive and inferential statistics with SPSS version 26. The most of the participants were males (61%, n=129) with the age of less than 50 years (80%, n=170). Urban residents constituted the majority (86%, n=182). Notably, 80% (n=169) had education beyond the General Certificate of Education Ordinary Level, and only 12% (n=25) were unemployed. Most participants (91%, n=192) demonstrated good awareness of oral hygiene, with all reporting daily cleaning of their teeth and tongue. Significant associations were found between residence type ( $p<0.000$ ), education level ( $p<0.000$ ), occupation ( $p<0.000$ ), and oral healthcare awareness. Furthermore, 91% (n=192) were aware of the benefits of quitting tobacco, while 92% (n=196) were aware of the benefits of quitting betel chewing. This study highlights the need to improve awareness of oral hygiene practices, especially regarding fluoride toothpaste and dental protective equipment. Implementing family-focused oral health education can promote lifelong oral hygiene habits.

**Keywords:** Oral healthcare awareness, quitting tobacco benefits, customized strategies

C8

[19]

### EXPLORING PERCEPTION OF FAMILY MEMBERS OF REHABILITATES ON EXISTING RESIDENTIAL DRUG REHABILITATION IN SRI LANKA: A DESCRIPTIVE QUALITATIVE STUDY

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The study aimed to explore the perception of the family members of rehabilitees regarding the existing residential drug rehabilitation in Sri Lanka. A descriptive qualitative study was conducted in purposively selected 12 family members of individuals with substance use disorder who engaged in residential drug rehabilitation. Ethical approval was obtained from the Ethics Review Committee of the Faculty of Medical Sciences, University of Sri Jayewardenepura (46/20). In-depth interviews were conducted in mutually convenient settings using an interviewer guide until data saturation. Interviews were recorded and transcribed. The data were analyzed using thematic analysis. Trustworthiness was ensured throughout the study. The study identified two major themes: "*value of rehabilitation*" and "*efforts for recovery*". The "*value of rehabilitation*" theme includes two subthemes: "*experience of transformative changes*" and "*satisfaction with the service*". The "*efforts for recovery*" theme comprised of the subthemes "*lowering the environmental risk*" and "*striving for future arrangements*". Family members expressed pleasure with their relatives' behaviors following treatment in residential care, believing helped their loved ones return to normal life patterns. Due to the fear about the relatives' future, family members are seen to be actively working to create a protective environment. The study highlights the importance of both rehabilitation and recovery efforts in addressing substance use behavior. Family members reported considerable positive changes and satisfaction with residential care. Moreover, family members exhibited establishing safe environments and devising plans to support their addicted relatives in the future.

**Keywords:** Family members, perception, sustainable recovery, substance use disorder, residential rehabilitation



C9

[20]

### **INFLUENCE OF PHYSICAL ACTIVITY AND DIET ON OVERWEIGHT AND OBESITY AMONG CHILDREN OF GRADES 6 TO 9 IN KALUTARA EDUCATIONAL ZONE**

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Overweight and obesity is a global health crisis linked to sedentary lifestyle. Hence, incorporating healthy life styles since childhood is essential. This study assessed the prevalence of overweight and obesity and its association with diet and physical activity level among students of grades 6 to 9 at type I AB schools in Kalutara Educational Zone. A descriptive cross-sectional study was conducted among 275 students of grades 6 to 9 in Type I AB schools within the Kalutara educational zone, selected using a multistage stratified cluster sampling technique. A self-administered questionnaire gathered socio-demographic, diet and physical activity related data from students, following parental consent. Students' weight and height were measured by the investigators using standard techniques. The response rate was 100%. Of the students (N=275), 17.8% (n=49) were overweight and obese, almost 65% (n=178) consumed unhealthy diet and one third of them (75.3%; n=207) were physically inactive. Further, a significant higher proportion of males (72.2%) compared to females (56.5%) consumed unhealthy diet ( $X^2=7.44$ ,  $df=1$ ,  $p=0.006$ ) and younger students were significantly more physically active than the older students (79.7% in Grades 6&7 Vs 69.2% in Grades 8&9;  $X^2=3.99$ ,  $df=1$ ,  $p=0.046$ ). Consumption of unhealthy diet (22.5% vs. 9.3%;  $X^2=7.46$ ,  $df=1$ ,  $p=0.006$ ) and physical inactivity (20.8% Vs. 8.8%;  $X^2=4.99$ ,  $df=1$ ,  $p=0.025$ ) were significantly associated with overweight and obesity among the students compared to their counterparts. The overweight and obesity was prevalent among the students and unhealthy diet and physical inactivity were significantly associated with it. Implementation of targeted, focused activities at school settings are recommended.

**Keywords:** Overweight and Obesity, diet, physical activity, schools, children



## **PAPER SESSION (D)**

# **BRIDGING THE GAP IN VULNERABLE POPULATIONS HEALTHCARE AND WELLNESS**





D1

[21]

## IMPACT OF SCHEDULED COUNSELLING ON CONTRACEPTIVE CONTINUATION RATES: EVIDENCE FROM A CLUSTER RANDOMISED TRIAL IN LOW- TO MIDDLE-INCOME COUNTRY

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Globally, family planning is a significant issue, especially in low- to middle-income countries in Africa and Southeast Asia. Kachota & Kassim, 2021 Literature suggests that worldwide, 1/3rd of women discontinue contraception in the first year of usage and more than half in the second year of usage. Adzovie & Adzovie, 2020; Sharma & Vishwakarma, 2020 This study assesses whether scheduled counselling for women aged 18-49 years increases the contraceptive continuation rates or duration. The study was conducted with a cluster randomized trial design to assess the effect of the intervention on 360 women attending facilities. Women of reproductive age 15-49 were eligible for inclusion. Facilities were randomized into intervention and control groups. The intervention started at the time of participant recruitment, where the intervention group received in-person counselling from a designated counsellor and, from then, every three months, over a telephonic conversation with the counsellor. Also, counsellors were available on the phone between those follow-up periods to address any queries in the experiment group. The counselling material was adopted and translated from WHO's "Decision-making Tool for Family Planning Clients and Providers" under the contract publication contract. (TR/22/003) The study's primary outcome was that the participants continued and discontinued using a contraceptive method at the end of the study. This trial was registered with CTRI (Reg#CTRI/2022/04/042220). A total of 360 participants were followed up for one year, 180 in each group; at the baseline, basic details of the participants were captured and compared between the experiment and control group with a t-test for continuous variables and chi-square for categorical variables. (Table 1) The comparison was conducted to ascertain no statistical difference between the two groups at the baseline. At the end of the follow-up period of one year, it was found that there were 155 true continuers, 13 switchers, and 12 discontinuers in the intervention group, and 121, 12, and 47 were in the control group. Pearson's chi-square test shows a significant difference between both groups, i.e., experimental and control ( $\chi^2 = 24.90$ ,  $p < 0.0001$ ). The baseline factors which played a role in the final results of the study were education, type of method chosen at the baseline, who was involved in deciding to choose a method and method information index (whether possible side effects were explained and what to do when there are side effects). This trial shows that women who received counselling every three months in the intervention group had a lower risk of discontinuation as compared to the control group. Factors such as education, occupation, type of method, method information index, and who chose the method played an important role in continuing, switching or discontinuing a method.

**Keywords:** Contraception, counselling, contraceptive continuation, family planning



D2

[22]

## ASSESSMENT OF NUTRITIONAL STATUS IN PREGNANT WOMEN WHO ARE RESIDING IN URBAN SLUMS: A STUDY USING ANTHROPOMETRIC MEASUREMENTS

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Globally, millions of people are insecure for food and nutrition, the coexistence of undernutrition and overnutrition, along with inappropriate nutritional behaviors are the challenges that are faced by the nutritionists of today. Undernutrition continued to be a main issue in the previous decades, there has been the progressive rise of overnutrition among women in the current decade during reproductive age especially among the rich section of the society both in urban and rural areas. Assessing the pregnant women's nutritional status and providing them appropriate care and advice has become an important concern. The research paper aimed to assess the nutritional status of pregnant women in the urban slums of Firozabad, Uttar Pradesh, India, using anthropometric characteristics. The study followed an exploratory cross-sectional design and focused on a sample size of 390 pregnant women aged between 15 and 49 years. Descriptive statistics, including means, medians, standard deviations, frequencies, and Logistic regression analysis were used to summarize the dataset. The data on weight gain during pregnancy across different BMI categories reveals that a substantial proportion of women do not meet the Institute of Medicine's recommendations. Among underweight women, the majority (71.1%) gain less than the recommended weight, while a significant percentage of obese women (50.8%) exceed the recommended weight gain. Specifically, "Normal Weight is statistically associated with occupation (p-value=0.011) rest categories are not significant (p-value>0.05). All weight categories are significant who have BPL card. The study highlights the need for targeted interventions and public health efforts to support pregnant women in achieving optimal weight gain during pregnancy. By addressing challenges in weight gain patterns, healthcare providers and policymakers can contribute to improved maternal and neonatal health outcomes and promote the well-being of pregnant women and their infants. The assessment of the nutritional status of pregnant women, with a focus on anthropometric characteristics, revealed critical insights into the adherence to weight gain recommendations across different BMI categories. These findings highlight the importance of monitoring weight gain during pregnancy to promote optimal maternal and fetal health

**Keywords:** Pregnant women, nutrition, BMI, urban slums



D3

[23]

### **KNOWLEDGE, ATTITUDES, AND THEIR ASSOCIATION WITH THE PRACTICE RELATED TO CERVICAL CANCER SCREENING AMONG FEMALE TEACHERS OVER 30 YEARS OF AGE IN THE KALUTARA EDUCATIONAL ZONE**

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Cervical cancer is the fourth leading cancer among females in Sri Lanka. Despite its importance, cervical cancer screening rates are low. Understanding factors affecting screening practices is crucial for effective programme implementation. To assess knowledge, attitudes, and their association with practice related to cervical cancer screening among school-teachers over 30years of age in Kalutara Educational Zone. A descriptive cross-sectional study was conducted among 375 female teachers over 30years of age, selected through multi-stage stratified probability proportionate consecutive sampling, in schools of two randomly selected educational divisions, of Kalutara Educational Zone. Those diagnosed with cervical cancer and who had undergone total hysterectomy were excluded. Data were collected using a self-administered questionnaire. Scoring systems developed by experts were used for participant categorization based on their knowledge and attitudes. Factors associated with practice were assessed using chi-square test at  $p < 0.05$  significance level. Response rate was 100%. Majority of the participants (73.6%) had a poor knowledge on cervical cancer screening while, 62.9% of teachers had 'positive' attitudes. Of the participants, only 48.3% had ever undergone cervical cancer screening. There was a statistically significant association between the level of practice and attitude ( $X^2=5.631$ ;  $df=1$ ;  $p=0.018$ ). However, their knowledge and practice failed to show any relationship ( $X^2=0.081$ ;  $df=1$ ;  $p=0.776$ ). Focused educational and behavioural change programmes at schools are recommended. Although teachers over 30years of age in Kalutara educational zone showed positive attitudes towards cervical cancer screening, their knowledge and practice were low. Their practice was significantly associated with attitude.

**Keywords:** Knowledge, attitude, practice, cervical cancer screening, teachers

D4

[24]

## CHALLENGES IN IMPLEMENTING PALLIATIVE CARE IN DEVELOPING COUNTRIES: A SYSTEMATIC REVIEW

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Palliative care (PC) optimizes the quality of life of patients with life-limiting illnesses, their family and caretakers. We focused on discerning unique obstacles encountered by developing countries in delivering PC services. Total 354 publications from PubMed, EMBASE, Cochrane, Google Scholar and Semantic Scholar databases were identified on challenges in PC implementation in developing countries between 2013 and 2022. Following deduplication, two independent reviewers initially screened the articles for eligibility with titles and abstracts, and then, with complete articles. Bias assessment using GRADE guidelines for observational studies was done. Non-English studies, from developed countries, case-series/case-reports/essays/book-chapters/conference-abstracts/ editorials/thesis/dissertations and studies without full-texts were excluded. The review was registered in Prospero (ID-CRD42024505781). The review included 24 observational studies. Challenges identified within the healthcare system included unavailability(n=12), unaffordability(n=13), inaccessibility(n=15) to PC services, untrained healthcare professionals(n=9), unavailability of financial/human resources(n=20), lack of national policies(n=11), scarcity/unaffordable pain management(n=18), deficient hospital infrastructure(n=15), weak referral systems(n=6), limiting PC only to hospices(n=8), limited services/facilities at primary-care level(n=15), communication and documentation gaps(n=6). Individual/family level challenges were lack of knowledge(n=8), financial constraints(n=16), cultural/religious beliefs(n=12), delayed presentation(n=5) and obtaining herbal/traditional treatment(n=7). The socio-cultural/political challenges included beliefs towards death and dying(n=12), stigmatization(n=17), transportation issues(n=4), and limited social support(n=6), hindering effective implementation of PC services. Several health-systems related, individual/family and socio-cultural/political barriers hinder the implementation of PC in developing countries globally. Policymakers need to acknowledge and tackle these obstacles when implementing PC services in the country. Conducting further studies to identify specific obstacles in implementing PC in Sri Lanka is recommended.

**Keywords:** Palliative care, developing countries, challenges, healthcare system, implementation

