

# BIOINQUIRER



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The Official Publication of the International Institute of  
Health Sciences, Sri Lanka

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**Editor in Chief** - **Dr. E.A.K.K. Edirisinghe**  
**Managing Editor** - **Mr. Damith Rajakulathunga**  
**Co-Editors** - **Dr. Dinusha Kanatiwela Niriella**  
**Mr. Nuwan Weerakoon**



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## From the Managing Editor

A cordial welcome to the Proceedings of IIHS, 20th BioInquirer – Annual Academic Sessions, 2021, embracing the theme of **“Together, towards Sustainability”**. It has been a great opportunity and a privilege to oblige as the Managing Editor of the Conference.

We live in a world of change so profound and rapid that no country could stand alone. The threats and challenges that the world poses towards humanity require everyone to share responsibility and contribute to a common vision, to a greater goal. This year, the BioInquirer research forum will aim at bringing out a national and multidisciplinary perspective on sustainability. Therefore, this research forum will provide an opportunity for the delegates to exchange their ideas and contribute to discussions on the broad range of sustainability and other issues faced today.

The BioInquirer - Annual Academic Sessions, this year, will align with the 5Ps (People, Planet, Prosperity, Peace, and Partnership) of the Sustainable Development Goals (SDGs) that were adopted by the United Nations in 2015. These 5Ps show how the SDGs are a unified framework rather than a collection of disparate goals. Development on one of the Ps must be balanced and supported by progress on the other. The research forum conducted this year strives to align with the 5Ps, which help to measure the progress of the SDGs.

This event will be delighted by a key note speech and eight plenary speeches by internationally-recognized professionals and researchers from Australia and Sri Lanka.

The 20th BioInquirer succeeded in attracting a high interest among the community and received over 250 abstracts. We would like to express our heartfelt appreciation to the advisory board, organizing committee, scientific committee, editorial committee, institutions, and volunteers who have directly and indirectly contributed to the success of this forum. We would like to especially thank the authors whose technical contributions are presented in these proceedings.

We look forward to a fruitful conference filled with stimulating presentations and knowledge sharing so that we may all look forward to a future of pioneering research, innovation as well as reflections.

Mr. Damith Rajakulathunga  
Managing Editor  
BioInquirer Journal

## **Editorial Committee - 2021**

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# Table of Contents

Reference Number	Topic
Key Note	Sri Lankan CKDu Epidemic- Research & Service Challenges (1995- 2021)
<b>Oral Presentations</b>	
OP 01	The role of biomedical/biotechnology research within Learning Health Systems
OP 02	Finding the heavy metal concentration of cabbage, leaks, and carrots in Sri Lanka
OP 03	Fasting plasma glucose, serum insulin, insulin resistance, and urinary microalbumin: creatinine ratio in a selected diabetic population
OP 04	Investigating the antibacterial property of ginger and garlic against <i>Escherichia coli</i> and <i>Staphylococcus aureus</i>
OP 05	Awareness on causes for the increase of urban waste and waste management practices among the general public in Western province, Sri Lanka
OP 06	A background survey on antimicrobial activity of <i>Ficus religiosa</i> relevant to Sri Lanka and India
OP 07	Testing <i>invitro</i> toxicity and bioactivities of an herbal extraction: water and ethanol extract of aerial roots of <i>Ficus benghalensis</i>
OP 08	A study on investigating antimicrobial activity of bee honey on wound within Sri Lanka, 2021
OP 09	Presenting preventive measures of COVID 19 in Sinhala television news telecasts during the 2nd wave of COVID 19 in Sri Lanka: Observational infoveillance Study
OP 10	Analysis of COVID 19 related Sinhala medium YouTube content: Infoveillance descriptive study
OP 11	Social and behavioral consequences of mask policies during the COVID 19 pandemic

OP 12	Evaluation of depression and anxiety among quarantined respondents of Covid-19 in Colombo district, Sri Lanka
OP 13	Student nurses' perception regarding clinical practice during Covid-19 pandemic in School of Nursing, Kalutara
OP 14	Assessing the impact of COVID-19 on dietary choices and habits among healthcare students in Sri Lanka
OP 15	Psychological impact of Covid-19 pandemic on the family of healthcare professionals: A qualitative study
OP 16	Socioeconomic problems faced during Covid-19 pandemic by the people in Colombo district, Sri Lanka – 2021
OP 17	Long Covid and the role of Physiotherapy
OP 18	Cervical manual therapy plus conventional physiotherapy in the management of frozen shoulder disorder in patients attending National Hospital Kandy, Sri Lanka
OP 19	Patient's level of satisfaction and adherence toward the outpatient physiotherapy clinics in government hospitals in Anuradhapura district, Sri Lanka: a mixed-method study design
OP 20	The effects of physical activity on sleep quality in children with Autism Spectrum Disorder (ASD) living in an urban community in Western province, Sri Lanka
OP 21	Evaluation of evidence-based clinical practice and barriers for the evidence-based clinical practice among physiotherapists in Sri Lanka: a mixed-method study design
OP 22	Peak expiratory flow rate and its correlation to the level of physical activity in a selected group of healthy Advanced Level students in the Gampaha district
OP 23	Impact of Covid 19 restrictions on exercise habits of Sri Lankan youth
OP 24	Impact of physical activity on the psychological well-being of nursing students at International Institute of Health Sciences, Sri Lanka
OP 25	Public Health - Information, misinformation and disinformation
OP 26	Oral health knowledge, attitudes and oral hygiene practices among adolescents in selected schools of Trincomalee district, Eastern province of Sri Lanka

OP 27	Knowledge, attitude, and practice among pregnant mothers on maternal nutrition and associated factors in Kandy district, Sri Lanka
OP 28	Perceptions on a healthy diet among the general public in Puttalam District, Sri Lanka
OP 29	Perception, hygiene practices, and sociocultural restrictions related to menstruation among female adolescents and young adults in the Gampaha district, Sri Lanka
OP 30	A study on awareness and practices on hypertension among hypertensive patients referring to medical clinic of Base Hospital Balangoda, Sri Lanka
OP 31	Knowledge, attitude and practice regarding dengue fever among general public in Puttalam district, Sri Lanka
OP 32	Assessing the level of awareness on iron deficiency anemia among women of childbearing age in rural areas in Anuradhapura district, Sri Lanka
OP 33	Prevalence of sexual assaults in public transportation among females in Colombo district, Sri Lanka
OP 34	The quest for quality begins at home: Reorienting professional learning and development for higher educators in the global South
OP 35	Action research on overcoming the challenges in the online teaching-learning process during Covid-19 lockdown in a private higher education platform
OP 36	Action research on the ESL challenges in the math curriculum among grade 6 students in a private international school in Sri Lanka
OP 37	Action research to identify difficulties in writing in ESL and exploring effective strategies to improve writing among ESL nursing students
OP 38	The accommodation of English for Academic Purposes (EAP) students' discipline-specific academic needs in EAP instruction
OP 39	Shame and speaking in English: A case study
OP 40	A literature review on the practice of translanguaging and the impact it creates in the ESL / EFL classroom



OP 41	Investigation of the Advanced Level students' perception of online learning during the Covid-19 pandemic in Sri Lanka
OP 42	Subject-specific knowledge and instructional challenges: A case study on English for Specific Purposes teachers in Sichuan, China
OP 43	Contextually-responsive knowledge transfer of overseas PD by Thai academics: A case study
OP 44	Teachers scrutinizing initial teacher education programs to identify professional needs: The case of Yogyakarta, Indonesia
OP 45	Economically deprived and eliminated: The bitter reality of inclusive education during the pandemic in Sri Lanka
OP 46	Developing a screening tool to identify reading difficulties of children aged between 6-7 years: Pilot study
OP 47	English language teacher educators' views on face-saving practices of pre-service teachers: A case study
OP 48	Perspectives of lecture delivery and assessment through E-learning among students pursuing tertiary education in private institutes and universities in the Gampaha district, Sri Lanka
OP 49	Educating nurses and midwives for the future
OP 50	Nursing students' experience on bullying and/or harassment during clinical placements
OP 51	An exploration into perception towards euthanasia among palliative care nurses of Sri Lanka
OP 52	Knowledge, attitude and practice of nursing students on the use of PPEs in clinical settings during the COVID-19 pandemic in the school of nursing, Kaluthara
OP 53	Prevalence of mental health related issues among nursing staff in a COVID-19 dedicated hospital in Sri Lanka
OP 54	Knowledge, attitude and practice of postoperative pain management among nurses at District General Hospital – Kalutara

OP 55	Prevalence of complications among kidney patients undergoing dialysis in Anuradhapura teaching hospital, Sri Lanka
OP 56	Nurse's level of knowledge and practices on prevention of surgical site infections
OP 57	Knowledge, attitude, and experience of staff nurses on palliative care in provincial general hospital – Badulla
OP 58	Perceptions of nurses on continuous professional development (CPD)
OP 59	Knowledge and attitude regarding HIV/AIDS among nurses in Sri Lanka
OP 60	Study on identifying the factors causing delayed presentation of cervical cancer
OP 61	Learning from COVID-19 for a resilient health system
OP 62	Perceived stress and associated factors among physicians during Covid-19 pandemic in Sri Lanka
OP 63	A study to determine the leading organizational factors of physician burnout among non-specialist doctors in Sri Lanka
OP 64	Improving environmental, economic and social performances by applying the green human resource management practices at health sector
OP 65	A study to determine barriers of career progression and professional development in non-specialist doctors in Sri Lanka
<b>Poster Presentations</b>	
PP 001	Assessing the knowledge and practices on novel COVID-19 among antenatal mothers in antenatal clinics in MOH area, Pitakotte
PP 002	Knowledge, attitude, and practice towards blood donation and blood transfusion among healthcare staff in Base Hospital Dehiattakandiya, Sri Lanka
PP 003	The assessment of self-medication practices for common ailments and their associated factors among workers of a private office in Badulla, Sri Lanka
PP 004	Knowledge about heart failure management among nurses at Cardiology Unit of National Hospital, Sri Lanka

PP 005	Assessment of frequency of domestic accidents among children under five years and knowledge of their mothers on prevention and management
PP 006	A study on nutrition-related knowledge, attitude, and practices among elderly people in Sri Lanka
PP 007	Assessing awareness on glaucoma among adults in Alawwa secretariat division, Sri Lanka
PP 008	Knowledge and practices of first aid in road traffic accident emergencies among school bus drivers in Kalutara area, Sri Lanka
PP 009	Nutrition and dietary habits among preschool children in Badulla West, Sri Lanka
PP 010	A study on knowledge and attitudes among parents of preschoolers regarding pediatric first aid in Maho MOH area, Sri Lanka
PP 011	Knowledge, attitude and practice of family planning methods among women attending the gynecological clinic at Provincial General Hospital – Badulla, 2020
PP 012	Study on health beliefs and health behavior related to hypertension risk among patients attending NCD clinic in Base Hospital - Wellawaya, 2021
PP 013	A study on the knowledge, attitude, and practice toward cervical cancer among women in Ganemulla area, Sri Lanka
PP 014	Associated factors for exacerbation of COPD and quality of life among patients with COPD on treatment in chest clinic, Provincial General Hospital - Badulla, Sri Lanka
PP 015	Awareness of breast cancer and self-breast examination among women in the Badulla MOH area
PP 016	Prevalence of anxiety and depression among chronic kidney disease patients
PP 017	A study to assess the level of stress among mothers with children below one year in the Balangoda MOH area
PP 018	Knowledge and awareness on accidental dental traumas among undergraduate nursing students in Sri Lanka
PP 019	Work-related stress and coping strategies for managing stress among surgical nurses in North Colombo Teaching Hospital (NCTH), Sri Lanka

PP 020	Awareness of non-pharmacological methods of treatment among diabetes mellitus patients attending the medical clinic and medical ward of Base Hospital Pulmoddai
PP 021	Awareness and practices on disposal of expired and unused medication among patients visiting outpatient department (OPD) of Divisional Hospital - Galauda in Badulla, Sri Lanka
PP 022	A study on knowledge and practices regarding newborn care and associated factors among postnatal mothers in Sri Lanka
PP 023	Knowledge, attitude, and practice of family planning among reproductive-age women in Kuliypitiya municipality and Kumbukkotuwa MOH areas
PP 024	Prevalence of postpartum depression among women delivered at District General Hospital – Nawalapitiya
PP 025	Awareness of dengue fever among the community in Dunuwila GS division in Central province of Sri Lanka
PP 026	Level of knowledge regarding hypertension among patients attending the hypertensive clinic at Divisional Hospital - Kathiravelly, Sri Lanka
PP 027	Knowledge, attitude, and practice on complementary feeding among mothers of children aged 6-24 months in public health midwives areas in Bible MOH, Sri Lanka
PP 028	Knowledge, attitudes, and practices on contraceptives among married, fertile age women of Thanamalvila MOH area, Sri Lanka
PP 029	The associative stigma of nurses on working in a psychiatric unit in the hospitals
PP 030	Knowledge and practice on intake of folic acid supplements among pregnant women attending the antenatal clinic of Colombo East Base Hospital, Sri Lanka
PP 031	Knowledge and attitude regarding mental illnesses among family members of mentally ill patients admitted to the National Institute of Mental Health (NIMH)
PP 032	Study on identifying the factors causing delayed presentation of cervical cancer
PP 033	Knowledge and practice on substance abuse among teenagers in Sooriara region in Thanamalwila, Sri Lanka

PP 034	Study on identifying the factors causing nursing-related barriers to addressing sexual health issues in primary healthcare settings in Sri Lanka
PP 035	Knowledge and practice towards foot care among chronic diabetic patients in the Wound Care Unit in Wijaya Kumaratunga Memorial Hospital, Sri Lanka
PP 036	Quality of life and level of stress among undergraduate nurses in a private nursing institution in Sri Lanka
PP 037	Prevalence of stress and adverse psychological effects of overwork among nurses
PP 038	Knowledge and practice on foot care among diabetic patients in Indira Gandhi Memorial Hospital (IGMH) in Male, Maldives
PP 039	Awareness, attitudes, and practices among young adults regarding consuming caffeinated energy drinks in Tha. Vilufushi, Maldives
PP 040	A study on assessing the awareness of GDM and associated risk factors among females in the Maldives
PP 041	A study on knowledge and practices of oral hygiene among teenagers in Hirilandhoo School, Maldives
PP 042	A study to assess factors leading to cesarean section among pregnant mothers in the Maldives
PP 043	Assessing the knowledge and practices of exclusive breastfeeding among mothers visiting postnatal clinics at Gan Regional Hospital, Maldives
PP 044	Assessing the perceived stress and associated factors among pregnant women in a selected grama niladhari division in Sri Lanka
PP 045	Study of social media usage for academic purposes among the nursing students in a leading nurse's training school in Sri Lanka
PP 046	Prevalence and associated factors of anemia among pregnant mothers at MOH Poonery
PP 047	Assessing the correlation between emotional intelligence and job satisfaction among nursing officers in the general hospital, Monaragala
PP 048	A study on knowledge and practices of antenatal care among pregnant women attending antenatal clinic of Wahara, Kurunegala

PP 049	Knowledge and practices on varicose veins among patients attending the surgical clinic at District General Hospital - Hambantota, Sri Lanka
PP 050	A study on the costs incurred by patients attending diabetes clinics, Colombo North Teaching Hospital during the Covid-19 pandemic
PP 051	Most common injuries among male rugby players of selected sports clubs in Colombo district, Sri Lanka
PP 052	Knowledge, attitudes and practices regarding fast food habits among teenagers in Haldummulla national college, Badulla, Sri Lanka
PP 053	Assessment of knowledge and practices on prevention methods of occupational injuries among undergraduate nurses in a selected healthcare institute in Sri Lanka
PP 054	Factors affecting confidence in vaccination among parents in Dhaandhoo, North Huvadhoo atoll, Maldives
PP 055	Level of knowledge, attitude, and practice on early detection of breast cancer among nursing officers studying in a private healthcare institute in Sri Lanka
PP 056	Identify the challenges faced by staff nurses supervising student nurses at the clinical setting
PP 057	A study on perception of nursing as a profession among Advanced Level students in a selected school, Sri Lanka
PP 058	Awareness, attitude, and practice of using a face mask among the aged population during Covid-19 pandemic in Gampaha district, Sri Lanka
PP 059	Assessment of knowledge and practices on preventing needle stick injuries among nurses working at Base Hospital, Warakapola Sri Lanka
PP 060	Knowledge, attitude, prevalence, and risk factors regarding chronic kidney disease among hospital clinic patients
PP 061	Assessing the tobacco and alcohol using behavior among undergraduate university students in the Colombo district, 2021
PP 062	Knowledge, attitude and practices of self-medication among adolescents and young adults in Gampaha district, Sri Lanka - 2021

PP 063	Awareness and attitudes towards first aid given during a road traffic accident among public in Gampaha district, Sri Lanka
PP 064	Prevalence in consumption of junk foods among adolescents studying in a private school in Gampaha district, Sri Lanka
PP 065	Awareness on nutrient components of the foods among the Ordinary Level students in a national school in Nikawaratiye
PP 066	The perspective of Covid-19 among elderly in Gampaha district, Sri Lanka
PP 067	A study on the use of over-the-counter medication among 20-50 age group at Bollatha South division in Gampaha district
PP 068	Teachers' knowledge and practices on refractive errors of primary school children in Deniyaya educational zone
PP 069	Knowledge and practices on prevention of surgical site infection among undergraduate nursing students in a selected institute in Sri Lanka
PP 070	A study on knowledge, attitude, and practices regarding hand hygiene among the third-year nursing students in a college of nursing - Matara, Sri Lanka
PP 071	A study on staff nurses' knowledge and practices on diabetic wound care management in Sri Jayewardenepura General Hospital, Sri Lanka
PP 072	Knowledge and attitudes towards substance-induced psychosis among the drug-addicted males in the Mithuru Mithuro drug rehabilitation center
PP 073	Levels of awareness on chronic kidney disease among family members of chronic kidney disease patients in Thissamaharama, Sri Lanka
PP 074	Awareness of anemia among pregnant women: A study conducted in the MOH Heegoda antenatal clinic, Sri Lanka
PP 075	Knowledge, practice and attitudes on safety measures against corona virus among adults aged 40-70 years in Kamburupitiya area, Matara district
PP 076	Assessing the knowledge and practices of foot care among type-II diabetic patients in Colombo South Teaching Hospital, Kalubowila
PP 077	A study on assessing knowledge and attitudes towards cesarean section among pregnant women attending the antenatal clinic in Fuvahmulah Hospital, Maldives

PP 078	Practices of soft drink consumption among students in nursing training school -Colombo
PP 079	Awareness of palliative care among nurses doing higher studies at a private healthcare institute in Sri Lanka
PP 080	Knowledge on and patterns of administering paracetamol among grade 12 and 13 students in Northern Hunuwala College
PP 081	The level of knowledge and attitude regarding maternal nutrition among pregnant mothers in Kuruwita MOH area, Rathnapura district, Sri Lanka
PP 082	Awareness on family history of non-communicable diseases and practice of preventive methods among Advanced Level students in Negombo area - 2020
PP 083	Knowledge, attitudes, and practices regarding breast cancer among school teachers in Walasmulla educational zone
PP 084	Knowledge and practice regarding prevention methods of needle prick injuries among nursing staff working at Provincial General Hospital - Badulla, Sri Lanka
PP 085	Knowledge, practices, and barriers on breast feeding among currently breast-feeding mothers in the Dickwella MOH area
PP 086	Mothers' knowledge, attitudes and practices regarding oral hygiene of their children in Isuru Navodaya International School in Alawwa , Sri Lanka - 2021
PP 087	Knowledge and practices regarding foot ulcers among diabetic patients treated in Base Hospital Kahawaththa, Sri Lanka
PP 088	Knowledge and practices regarding breast feeding among mothers in the Seethawaka MOH area
PP 089	Prevalence of obesity among grade seven schoolchildren in Colombo 07 area
PP 090	Knowledge and attitudes about immunization among guardians under 5 years' old children in the Kekanadura MOH area
PP 091	Knowledge and practices regarding oral health status among pregnant women in a selected antenatal clinic in Sri Lanka
PP 092	Assessment of dietary habits and BMI among Ordinary Level students in Moragahapallama area, Ampara district



PP 093	Impact of social media on adolescents' mental health in Dunuwila GS division, Central province, Sri Lanka
PP 094	Parental awareness on childhood fever and antipyretic usage among parents with children under five years
PP 095	Knowledge, attitudes and practices towards infection control among working nurses in Sri Lanka
PP 096	Awareness regarding iron deficiency anemia among schoolchildren in Sri Palee College, Horana, Sri Lanka
PP 097	Study on factors affecting non-compliance of treatment among adult patients with asthma in a medical clinic at District General Hospital - Matara, Sri Lanka
PP 098	Assessment of knowledge and associated factors regarding colostomy care among staff nurses working in Apeksha hospital, Maharagama, Sri Lanka - 2021
PP 099	Knowledge, attitude, and practices of contraception among the pregnant mothers in a selected area in Sri Lanka
PP 100	Knowledge, attitude, and practices regarding the prevention of anemia among pregnant mothers in Gampola MOH area
PP 101	Attitudes and barriers related to research writing among nurses in Provincial General Hospital – Badulla, Sri Lanka
PP 102	Assess knowledge on daily fluid intake among nursing officers in District General Hospital – Nawalapitiya
PP 103	Quality of life among smear-positive pulmonary tuberculosis patients in central chest clinic, Colombo district, Sri Lanka - 2019
PP 104	Knowledge, attitudes, and practices of venous cannulation techniques and local site infections among nurses in District General Hospital - Trincomalee
PP 105	Assessment of knowledge and practices of mothers regarding home-care management of children with nephrotic syndrome in teaching hospital Karapitiya, Sri Lanka
PP 106	Knowledge and attitudes regarding human immunodeficiency virus among the youth aged 15-24 years living in slum areas in Colombo district, Sri Lanka - 2021
PP 107	Sleep pattern disturbances and associated factors among patients admitted to chemotherapy wards in National Cancer Institute in Maharagama

PP 108	Knowledge, attitude and practices on exclusive breast feeding: A study conducted among lactating mothers in Fuvahmulah city, Maldives
PP 109	Knowledge and attitudes regarding emergency contraceptive pills among undergraduate students of a private institute
PP 110	A study on the mother's knowledge and practices regarding febrile convulsion among children in Handapangoda, Sri Lanka
PP 111	Knowledge, attitudes and practices towards diabetes mellitus among elders in Ganekolaniya grama niladhari division, Sri Lanka
PP 112	Factors influencing job satisfaction among nursing officers in a government hospital in Kalmunai, Sri Lanka
PP 113	A study on assessing the knowledge, practices and attitudes of pregnant mothers about nutritional status during pregnancy in Nikaweratiya MOH area
PP 114	Relationship between depression/anxiety level and DAS28-ESR value among rheumatoid arthritis patients at teaching hospital - Rathnapura
PP 115	Knowledge and practice of menstrual hygiene management among adolescent school girls of age 13-17 Nalanda Girls' Central College - Minuwangoda
PP 116	Knowledge and practices regarding the infection control among nursing officers in Deniyaya Base Hospital, Sri Lanka
PP 117	To assess knowledge, attitudes and practices related to diabetes among adolescents in Lh. Naifaru, Maldives
PP 118	Prevalence and the associated factors of occupational low back pain among nurses in District General Hospital - Nuwara Eliya, Sri Lanka
PP 119	Factors associated with road traffic accidents among people admitted to the accident service of National Hospital of Sri Lanka
PP 120	Kumari Hair Oil products limited
PP 121	A study on the social aspect of antibiotic usage in Maldivian community
PP 122	Awareness of self-management among diabetes mellitus patients of Fuvahmulah city

PP 123	Assessment of the nutritional status of pregnant women in a selected rural area in Sri Lanka
PP 124	Knowledge, attitudes, and practices regarding surgical site infections among surgical and gynecology ward nurses at District General Hospital - Nuwaraeliya
PP 125	Ayurveda: the path to achieving the sustainable development goal of good health and well-being
PP 126	Smartphone usage among nursing students in School of Nursing - Kaluthara
PP 127	Final-year student nurses' perception regarding OSCE as an evaluation method – A survey
PP 128	Effectiveness of online teaching and learning: Nursing students' perceptions during Covid-19 pandemic
PP 129	Impact of social media addiction on the mental health of schoolchildren studying in schools in Matale district, Sri Lanka
PP 130	Impact of mothers' migration towards primary education of their children in selected schools in Kurunegala district
PP 131	Parental knowledge and practice regarding safety and effectiveness of over-the-counter medicines for their children
PP 132	Knowledge and practices on infection control among ICU nurses in a government hospital in Sri Lanka
PP 133	Study of sleep habits and sleep problems among nursing officers in National Hospital of Sri Lanka – 2021
PP 134	Knowledge, attitude and practice toward blood donation among voluntary blood donors in selected hospitals of Sri Lanka
PP 135	Factors affecting overweight and obesity among adolescents in the Mawanella MOH area
PP 136	Assessing the knowledge and practices on dengue fever among the public in a rural area in Matara district
PP 137	Knowledge, attitude, and practices of caregivers towards managing dementia patients in elders' homes, Ja-Ela and Negombo MOH areas

PP 138	Measuring depression among pregnant mothers attending antenatal clinic in Peradeniya Teaching Hospital
PP 139	Nurses' knowledge, attitudes and practice regarding prevention of the pressure ulcers in District General Hospital - Nuwara Eliya
PP 140	A study on knowledge and practices of first aid in road traffic accident emergencies among taxi drivers in Kalutara - Dodangoda division
PP 141	Knowledge and perceptions about diet and physical activity among adults with diabetes mellitus in Kadiraveli hospital
PP 142	Knowledge, attitude, and practice regarding dengue fever among a rural area in Gampaha district
PP 143	Effect of balance exercises on diabetic peripheral neuropathy patients in improving balance to minimize fall risk: Review
PP 144	Introducing fleet management information system to improve the effectiveness of management of vehicles at health sector
PP 145	Action research on guided speaking activities to address problems that ESL nursing students face in a private international nurse training institute in Sri Lanka
PP 146	Assessing the levels of knowledge regarding gestational diabetes mellitus among mothers during the antenatal period
PP 147	Awareness on depression and practices of stress management among Advanced Level students in a selected institute in Sri Lanka - 2019
PP 148	Awareness of exclusive breast feeding among postnatal mothers in Nawalapitiya District General Hospital, Sri Lanka
PP 149	Exploring knowledge and practices towards Covid-19 among adults living in Ibbagamuwa area in Kurunegala district, Sri Lanka
PP 150	Assessment of the factors affecting job satisfaction for newly appointed government sector nursing officers in a tertiary care hospital in Kandy, Sri Lanka - 2020
PP 151	A study on knowledge, attitude and practices on dengue fever among hospitalized patients at Teaching Hospital Anuradhapura

PP 152	A study on the level of knowledge, attitudes and practices of preschool parents on management of childhood fever in Fuvahmulah, Maldives
PP 153	Assessment of the sick absenteeism among nurses of Indira Gandhi Memorial Hospital (IGMH), Maldives
PP 154	A study on work-related burnout among Maldivian nurses currently working in the Maldives - 2020
PP 155	Assessment of the levels of awareness on chronic kidney disease among chronic kidney disease patients in Polonnaruwa district, Sri Lanka
PP 156	Associative stigma due to work in mental health among mental health nursing professionals in a government institute in Sri Lanka
PP 157	Knowledge and practices on vitamin A mega-dose supplementation among caregivers of children under 5 years old in Imbulpe MOH area
PP 158	Tendency of reading books in leisure time among staff nurses in Teaching Hospital - Anuradhapura
PP 159	Level of knowledge and awareness of nursing staff on healthcare waste management system in Base Hospital - Mahiyangana
PP 160	Knowledge on type-II diabetes mellitus among diabetic patients being treated in District General Hospital - Matale, Sri Lanka
PP 161	Knowledge and practice of foot care in patients with diabetic wounds in surgical units and diabetic clinic in District General Hospital - Nuwara-Eliya
PP 162	Identify the impact of social media among the nursing students in a leading nurses training school in Sri Lanka
PP 163	Examine knowledge, attitudes and practices on oral health among student nurses of Nursing Teaching School - Kandana

<b>Reflections</b>	
Ref 01	Reflection on being mindful of the atmosphere in a clinical setting
Ref 02	Reflection on nasogastric feeding – gap between heoretical and practictical knowledge
Ref 03	Reflection on management and safety measures in handling patients in a psychiatric ward
Ref 04	Reflection on clinical practice on nasogastric feeding by the student nurses
Ref 05	Reflection on importance of concentration during procedures
Ref 06	Reflection on tissue sectioning in histology department of a private hospital in Sri Lanka
Ref 07	Reflection on time management and competency
Ref 08	Reflection on the importance of accuracy of a process
Ref 09	Reflection on deficiencies in practical abilities, as well as professional skills of novice healthcare workers
Ref 10	Reflection on the importance of communication skills in healthcare profession

## KEYNOTE SPEECH

### Sri Lankan CKDu epidemic – research & service challenges (1995 – 2021)

#### VIDYAJYOTHI PROFESSOR REZVI SHERIFF

*Senior Professor of Medicine, Kotelawala Defence University, Sri Lanka  
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An epidemic of chronic kidney disease of unknown origin (CKDu) was noticed by the University Medical unit, Colombo and presented to the Sri Lanka Medical Association in 1994. For a few years, descriptive research directed by Dr. Abeysekare of Kandy General Hospital led to increased awareness and realization of its increasing incidence and prevalence. Initially, North Western and North Central provinces in the dry zone were identified and now Uva and Eastern provinces have been added to endemic areas. Such CKDu “hotspots” have now been identified in several areas in the world, predominantly in poor farmers – rice farmers in Sri Lanka and Uddanam district in Andhra Pradesh, India and sugar cane workers in the Meso-American region of El Salvador, Costa Rica and Nicaragua. The clinical features and aetiopathogenesis seem similar everywhere and it is suggested that there may be some common associated factors as the pathology is found to be a chronic interstitial nephropathy.

As the case numbers increased, a vast amount of research was undertaken in Sri Lanka in several sectors – agriculture, water, geology, fertilizer use, health, public health, social science, etc. Many academic centres took part in these studies. The University of Peradeniya has given leadership. The World Health Organization (WHO) and Epidemiology Unit of Ministry of Health, with funding largely from the National Science Foundation (NSF), undertook a massive project bringing together many scientists and their teams including scientists from relevant sectors. Water sources, water contaminants, pesticide residues, and heavy metals, eg: Arsenic, Cadmium, etc., have all been implicated as associated with aetiology. A multi-factorial origin has been proposed. No clear agreed hypothesis has yet emerged.

There is now enthusiastic political leadership and many committees, and many sets of recommendations have been partially implemented. Health Ministry has set up several screening clinics; dialysis and transplant centers to mitigate the effects of the illness on suffering families. Several measures to supply clean portable water is in place. Social service measures to counsel persons and offer financial help is in place. There is no definite aetiology yet in sight. A recent International Expert Consultation organized by the WHO, NSF and Presidential Task Force did a detailed analysis of all factors and literature presented & published. Most scientists from all sectors took part in these discussions. These recommendations will examine the research and clinical challenges ahead of promoting our medical and scientific personnel to come together, get this epidemic under control locally and also collaborate & learn lessons from the global epidemic.

What was needed is to join hands and do research at a national level to achieve the goals needed. We hope the National Science Foundation will provide the necessary platform.

More recently, the Covid pandemic and political issues leading to a lack of budget guidelines was a setback in the renal research program in the National Science Foundation.

# **BIOMEDICAL / BIOTECHNOLOGY**



## PLENARY – OP 01

### **The role of biomedical/biotechnology research within Learning Health Systems**

**Dr. Alexandra Edelman**

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Learning Health Systems (LHSs) are dynamic health ecosystems that enable continuous learning and improvement to achieve health and health system impacts. When we create LHSs, we are creating more than just research capacity, projects and products from research – we are creating learning sites that continuously analyse and critique practice and policy to respond and adapt to health needs and changing contexts. Learning – and therefore adapting to change and lessening the risk of repeating failures – is as important in health systems as it is in other areas of human life; as the famous saying goes, “those who fail to learn from history are doomed to repeat it”.

Biomedical and biotechnology research is an essential component of LHSs, contributing new diagnostic and treatment tools, approaches, and products to improve health care and patient outcomes. An LHS perspective highlights the importance of facilitating translation pathways from new biomedical and biotechnological discoveries into routine clinical practice. But more than this, an LHS perspective underscores that clinical care systems are only one component of a much broader set of functions and structures that are intended to improve health. When we think about the role of biomedical and biotechnology research within LHSs, therefore, we are thinking not only about the mechanisms of research translation (“bench to bedside”) but also about how research can be used to support continuous learning across sectors and across organisations for health and health system impact. These ideas are being put into effect in the Australian health system, including in northern Queensland, through the establishment of Academic Health Centres and other partnerships between health care, teaching, and research organisations.

## OP 02

### Finding the heavy metal concentration of cabbage, leeks, and carrots in Sri Lanka

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**Introduction:** In Sri Lanka next to rice, the vegetable sub-sector is the most significant in the agricultural sector. The aim of the study was conducted to identify the concentrations of potentially harmful chemicals such as arsenic, cadmium, chromium, copper, lead, and nickel, in the daily consumed vegetables such as carrot, leeks, and cabbage were taken.

**Methods:** The present study was carried out in Colombo district, Sri Lanka. The research conducted was a quantitative study. Fresh vegetables were collected from wholesale distributors in the manning market where large-scale harvesting has been sold concluding it as the primary distribution location of vegetables for the whole country. A sample size of 2kg per each from selected vegetables (carrot, leeks, and cabbage), considering the maximum weight of vegetables as 6kg was taken to identify the heavy metals in vegetables. Afterward, the samples were partially dried, packed in polythene, and transported in an icebox to obtain maximum freshness until the samples were tested using the technology of spectroscopy.

**Results and Discussion:** The study findings revealed that copper is detected in cabbage, carrots, and leeks but below the WHO and FDA safe limit of 40 mg/kg. The highest concentration of copper was observed in carrots and it was 0.36 mg/kg. The second-highest concentration of copper was found in leek and it was 0.31 mg/kg. Cabbage had the lowest concentration of copper and it was 0.23 mg/kg.

**Conclusion:** The results hence show that the vegetables consumed in the Colombo district are safe for consumption.

**Key Words:** *Chemicals, Concentrations, Heavy metals, Spectroscopy, Vegetables*

## OP 03

### **Fasting plasma glucose, serum insulin, insulin resistance, and urinary microalbumin: creatinine ratio in a selected diabetic population**

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**Introduction:** The World Health Organization has reported that diabetes will be the 7<sup>th</sup> leading cause of death in 2030 where Sri Lanka accounts for the 2<sup>nd</sup> highest prevalence of diabetes mellitus (DM) in South East Asia. More than 80% of diabetic deaths have been reported from low and middle-income countries. The aim of the study was to determine the association of fasting plasma glucose (FPG), serum insulin, and insulin resistance (IR) with urine microalbumin: creatinine ratio in a selected type 2 diabetes mellitus (T2DM) population.

**Methods:** This was a descriptive cross-sectional study in 121 previously-diagnosed adult diabetic populations at the Family Practice Centre of the University of Sri Jayewardenepura (USJP). Anthropometric measurements of the participants were obtained. FPG, serum insulin, urinary albumin, and urinary creatinine were measured. Urine microalbumin: creatinine ratio was used to define microalbuminuria and the homeostasis model assessment of IR (HOMA-IR) was used to assess IR. Results were analyzed using SPSS version 16 and Microsoft Excel 2010. Correlation and association tests were carried out (significance at  $p < 0.05$ ).

**Results and Discussion:** Recorded anthropometric measurements were analyzed against the study's other parameters. IR significantly and positively correlated with weight and height whereas insulin had a significant positive correlation with weight, height, body mass index (BMI), waist circumference (WC), and mid-upper arm circumference (MUAC). Microalbumin had a significant positive correlation with age, height, and creatinine while creatinine significantly and positively correlated with weight, height, and MUAC. Microalbumin: creatinine ratio of the study population significantly and positively correlated with the age of the subjects. Among the study population, 18.2% had microalbuminuria (microalbumin: creatinine ratio  $> 30$  mg/g creatinine). Subjects who had an FPG  $\geq 126$  mg/dL, had a mean microalbumin: creatinine level of  $30.16 \pm 34.89$  mg/g creatinine with 22.03% having microalbuminuria. IR had a positive correlation with microalbumin: creatinine ratio but was not significant. A significant difference was observed between mean insulin levels and IR in subjects who had a monthly income above Rs. 20,000/-.

**Conclusion:** Weight, BMI, WC, and MUAC would be used as cost-free early predictors of diabetes and its metabolic complications. Subjects with high FPG have a higher chance to have microalbuminuria. Hence uncontrolled diabetic subjects should be more aware of diabetic kidney damage and should assess their kidney function more frequently.

**Key Words:** *FPG, Serum insulin, IR, Microalbumin, Creatinine ratio*

## OP 04

### Investigating the antibacterial property of ginger and garlic against *Escherichia coli* and *Staphylococcus aureus*

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**Introduction:** Many natural plant products are beneficial for different formulations based on their medicinal significance in modern medicine garlic and ginger are two frequently utilized plants in naturopathy. Today many people have acknowledged that garlic and ginger perform an antibacterial activity. The objective of this study was to investigate the antibacterial properties of *Zingiber officinale* (ginger) and *Allium sativum* (garlic).

**Methods:** An experimental quantitative study was carried out. A total of twelve nutrient agar plates were prepared for the experiment (six plates for *Escherichia coli* and six plates for *Staphylococcus aureus*) testing each ingredient extraction separately. Disc diffusion procedure was carried out according to the standard protocols to acquire inhibition zone of *Escherichia coli* for ginger extract and garlic extract separately and inhibition zone of *Staphylococcus aureus* for the two-ingredient extractions separately for a single experimental setup consisting of four agar plates. The procedure was repeated to acquire inhibition zone values for a total of three such experimental setups in order to evaluate average values for the inhibition zones.

**Results and Discussion:** The activity of Allicin, a chemical constituent of garlic, was reported as an antibacterial-resistant, Gram-positive and Gram-negative bacteria. Various garlic extract shown to suppress the growth of a variety of infectious bacteria with varying degrees of susceptibility. Hence ethanolic garlic extract had a stronger suppressive impact against *Staphylococcus aureus* and *E. coli* than aqueous garlic extract, which had minimal or no inhibitory effect at all. The antibacterial activity of ginger and corresponding mechanism against *Staphylococcus aureus* and *Escherichia coli*, predominantly due to bacterial cell membrane rupture. Hence in the *E. coli* bacteria remained unchanged after about certain times while it remained constant for the bacteria *S. aureus*.

**Conclusion:** The properties of ginger and garlic which have significantly good antibacterial activity with gram positive and gram negative bacteria. The zone of inhibition produced by the antibacterial agent due to suppression of the bacterial colony formation is viable to conclude that Ginger and Garlic extracts exhibit effective antibacterial properties.

**Key Words:** Antibacterial, *Escherichia coli*, Garlic, Ginger, *Staphylococcus aureus*

## OP 05

### **Awareness on causes for the increase of urban waste and waste management practices among the general public in Western province, Sri Lanka**

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**Introduction:** Proper waste administration and handling for the waste created is a gigantic assignment. Urban waste represents a largely untapped source of recyclable materials for the production of reusable goods as well as a source of both heat and electricity when properly utilized in efficient waste-to-energy plants. The main objective of this study was to assess the level of awareness on the causes of urbanization waste.

**Methods:** This was a descriptive cross-sectional study, conducted among both males and females, within the age group of 20 to 60 years in Western Province, Sri Lanka. A self-administered translated questionnaire (English, Sinhala and Tamil languages) was distributed and 150 individuals were chosen using a quota sampling technique. Furthermore, results were statistically analyzed using SPSS software.

**Results and Discussion:** The analyzed data showed that 51.3% (n=77) of the respondents were aged between 20 to 30 years. The majority (87.3%, n=131) of the respondents were aware of the increase in urban waste. However, they were unaware of the major source associated with an increase in urban waste as household waste where 40.6% (n=61) of the participants stated industrial waste as the major source. In addition, though 84.6% (n=127) separated inorganic and organic waste, 64% (n=96) of participants have stated that the e-waste is not discharged using proper channels. Conversely, 52% (n=78) of the respondents have not received any training on waste management and 89.3% (n=134) have stated that further training on waste management should be carried out.

**Conclusion:** The available evidence from this study shows there is a need to cultivate community awareness, training and change the attitude of people towards waste. Sustainable and economically viable waste management is recommended to ensure maximum resource extraction from waste, combined with safe disposal of residual waste along with a complete infection control program.

**Key Words:** *Awareness, Practices, Public, Urban, Waste management*

## OP 06

### A background survey on antimicrobial activity of *Ficus religiosa* relevant to Sri Lanka and India

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**Introduction:** Since the Vedic period, Sri Lankans have used fresh plants as medicine. Microorganisms and medicinal plants are excellent sources of bioactive compounds which direct to the development of valuable drugs for treating many diseases.

**Methods:** The articles were collected through *PubMed and Google Scholar*, using keywords including '*Ficus religiosa*' and 'antimicrobial activity'. To improve the currency, specificity and relevancy, only the results of the past 3 years (from 2019- 2021) were used. The search results were narrowed down to the research conducted in Sri Lanka and India to increase the precision and only the relevant studies published in English were considered for this survey.

**Results and Discussion:** This literature review illustrates that majority of the research has used liquid extractions and powder forms of leaf and bark from *Ficus religiosa* to evaluate the medicinal values. The antimicrobial activity of *Ficus religiosa* shows a substantial impact against selected microorganisms. Previous research has shown that the extract obtained from *Ficus religiosa* has a high antibacterial activity against the majority of the tested bacterial strains, particularly bacteria in the gastrointestinal tract. They have reported that *Ficus religiosa* contains phytosterols, flavonoids, tannins, and furanocoumarin derivatives causing antimicrobial activity. Methanolic extracts of *Ficus religiosa* were tested for antibacterial activity against a variety of gram-positive and gram-negative bacteria. Standard kanamycin discs (30 mg/disc) have been used as the control, and antimicrobial activity was measured in terms of zone of inhibition (mm). Different studies compared the results to standard antibiotic drugs, and in this screening work, extracts of *Ficus religiosa* were found to be active against a wide range of organisms.

**Conclusion:** This review emphasizes on publications in Sri Lanka on this topic were rare to find. However, due to the rising prevalence of antimicrobial resistance, the quest for novel drugs from natural sources persists.

**Key Words:** *Antimicrobial activity, Ficus religiosa, Background survey, Literature review*

## OP 07

### Testing *invitro* toxicity and bioactivities of an herbal extraction: water and ethanol extract of aerial roots of *Ficus benghalensis*

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**Introduction:** *Ficus benghalensis* is a tree native to the Indian subcontinent that is regarded as one of the most widely used plant species in the world. Various parts of the tree such as leaves, bark, fruits, roots, flowers are widely used and significantly in the field of Ayurveda medicine. The problem of the research was fewer studies and research done in Sri Lanka with regards to analyzing toxicity and bioactive properties of aerial root of *Ficus benghalensis*. The objective of this study was to test and analyze *in vitro* toxicity and bioactive properties by conducting anti-oxidant and anti-bacterial tests for *Ficus benghalensis* aerial root extract.

**Methods:** Ethanol and water extraction will be performed to obtain an extract from aerial roots of *Ficus benghalensis*. The chemical characterization will be performed using an already published method of Gas Chromatography-Mass Spectrometry. *Allium sepa* root tip assay will be performed to determine *in vitro* toxicity levels. Further, anti-oxidant and anti-bacterial activities will be assessed.

**Results and Discussion:** It is expected that *Ficus Benghalensis* aerial root shows lower or moderate toxicity according to the *Allium cepa* root tip assay. GC-MS data is expected to show bioactive compounds that exhibit various biological activities which may be useful in the prevention and cure of different diseases. Lupenyl acetate,  $\alpha$ -Amyrenyl acetate,  $\gamma$ -Sitosterol, Palmitic acid and Lupeol are the compounds expected to be present. The sensitivity of the extracts against gram-negative bacteria will be analyzed and it's expected to have higher or moderate anti-microbial activity. Moreover, the two extracts of *Ficus benghalensis* aerial roots have a possibility to show higher free radical scavenging ability.

**Conclusion:** Though the *Ficus Benghalensis* aerial roots are used commonly in traditional medicine, scientific data that support bioactivities and toxicity studies are rare. This study will exhibit the toxicity level, antibacterial and antioxidant activities based on experimental results. Furthermore, *in vivo* experiments are recommended to conduct before developing extracts into consumable products.

**Key Words:** Anti-bacterial, Anti-oxidant, *Ficus benghalensis*, In-vitro, Toxicity

## OP 08

### A study on investigating antimicrobial activity of bee honey on wound within Sri Lanka, 2021

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**Introduction:** Honey has been used for both consumption and medical application since 6000 BC. Even though the exact effects were not known, the functions proved to be beneficial. Recently, it is being used in many industries beyond medical associations claiming to have more potent underlying functions such as antibacterial properties that can benefit the respective sectors such as cosmetic and wellness industries. The main objective of this research is investigating the antimicrobial effect of bee honey with scientific methods and proper ethics towards treating primary wounds.

**Methods:** A collection of bee honey samples from different price points will be collected along with a pure honey sample without additives. Antimicrobial effect will be tested using five different species of bacteria: *Staphylococcus aureus*, methicillin-resistant *Staphylococcus aureus*, coagulase-negative *Staphylococci*, *Enterococci*, *Escherichia coli*. Bacteria will be tested for its sensitivity through AST (antimicrobial sensitivity test), and a control experiment utilizing methicillin, penicillin and ampicillin will be carried out parallel to the main experiment.

**Results and Discussion:** According to the literature related to antimicrobial effect of bee honey, results are expected to show a significant antimicrobial activity of pure honey samples. Commercial samples are expected to show different efficiency levels based on the level of purity. However, pure honey will be further directed for treating primary wounds due to the resistance against the antibiotic resistant bacteria and weaker bacterial species.

**Conclusion:** Honey can work against antimicrobial resistant microbes that has more potential to be morbid if it infects wounds and it will slow down the entry or kill the microbes by absorbing its water content in bacteria such as *Staphylococcus aureus*.

**Key Words:** *Bee honey, Antimicrobial activity, Methicillin, Wound healing*



# **SOCIAL DYNAMICS OF THE PANDEMIC**

## OP 09

### **Presenting preventive measures of COVID-19 in Sinhala television news telecasts during the 2nd wave of COVID-19 in Sri Lanka: Observational infoveillance study**

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**Introduction:** Promoting the key preventive measures is regarded as the most effective public health response to the COVID-19 pandemic. News telecasts in television channels have a great potential in disseminating these messages to the general public. This infoveillance study was done to assess the content related to preventive measures for COVID-19 included in Sinhalese television news telecasts.

**Methods:** An observational infoveillance study was conducted by performing both quantitative and content analyses of COVID-19 related content included in Sinhalese prime time news-bulletins in four of the most viewed television channels for two weeks' duration.

**Results and Discussion:** A total number of 56 news bulletins were reviewed during the study time frame. Movement restriction was illustrated with brief descriptions in 25.0% (n=14) of news bulletins and handwashing was shown and described only in 8.9% (n=5). However, reporting the importance of wearing face masks (7.1%, n=4), social distancing (8.9%, n=5) and avoiding gatherings and crowded places (16.1%, n=9) were low. A variation of reporting was noted among four different channels. The content analysis has revealed a lack of objective descriptions and graphical illustrations.

**Conclusion:** News bulletins are generally failing to provide the public with complete and adequate information about preventive measures. A discrepancy was noted in the volumes of reporting of different preventive strategies and a variation of reporting was noted among four different channels. Objective verification of certain preventive measures was not adequately done.

**Key Words:** *COVID-19, Infoveillance, News, Preventive measures*

## OP 10

### Analysis of COVID-19 related Sinhala medium YouTube content: Infoveillance descriptive study

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**Introduction:** YouTube has emerged as a popular source of health information as many people access there to obtain information related to various health issues. The number of views is a reliable illustration of the reach of a YouTube video to public and it is a crude indicator of the public acceptance of material circulating on YouTube. This infoveillance study was conducted to describe the reach and acceptance of the currently circulating Sinhala medium material related to COVID-19.

**Methods:** An infoveillance descriptive study was conducted by performing a descriptive analysis of COVID-19 related Sinhala medium content in YouTube. All the Sinhala language clips listed under COVID-19 related search terms, which were published over a one-year period were collected and included. The first 100 search results were scrutinized and when expressing average figures median values were calculated as distributions were skewed. For each median weekly values were calculated to make better comparisons.

**Results and Discussion:** A total of 126 YouTube clips were included for analysis. Type of video clips included were explanatory (37%, n=46), entertainment (20%, n=25), interviews (13%, n=16), news clips and animated videos (22%, n=27) and songs (2%, n=2). Most of them were published by YouTube channels, while 28% (n=35) by the Ministry of Health and 26% (n=33) by media organizations. Disaggregated data indicated that the majority of the items published by the Ministry of Health were short entertainment clips while most of the videos published by media organizations were either interviews or news clips (% each). News clips had gained the highest median viewership (median = 1208.19 range = 29 to 26305) and songs got the highest median likes by viewers (median = 2.51 range = 0 to 15). Entertainment clips reported the least median viewership (median = 12.25 range = 1 to 43626) and least likes (median = 0.2 range = 0 to 2229). Personal YouTube publishers gained the highest median viewership (median = 657.35 range = 2 to 2005) and the highest median likes by viewers (median = 4.33 range = 0 to 66). Video clips published by the Ministry of Health had the least median viewership and least likes by viewers (median = 0.1 range = 0 to 193).

**Conclusion:** Media organizations make the largest contribution in publishing COVID-19 related material on YouTube and can make a significant impact in shaping public views and changing behavior. As independent YouTube publishers gained the highest viewership and acceptance, it's important to ensure the accuracy and reliability of information disseminated by them. Lower levels of views and likes gained by material published by the Ministry of Health prompt the need of paying more attention to boosting education and awareness materials.

**Key Words:** COVID-19, Like, Sinhala, Views, YouTube

## OP 11

### **Social and behavioral consequences of mask policies during the COVID-19 pandemic**

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**Introduction:** Face masks are widely used to fight COVID-19, but little is known about their social and behavioral effects. Face masks are believed to be an effective approach for preventing respiratory illnesses such as Coronavirus. It is critical to study the social and behavioral effects of mask rules for the usage of face masks to discover vulnerabilities and intervene quickly enough to prevent infection transmission. This study aimed to determine Social and behavioral consequences of mask policies during the COVID-19 pandemic among society.

**Methods:** Data was gathered through face-to-face in-depth interviews based on a question guide. Males and females between the ages of 25 and 50 were selected from a sample of 12 persons in the Gampaha district. The data were transcribed and organized into themes and further analyzed, drawing conclusions.

**Results and Discussion:** As indicated by the information examination, most individuals stated that the COVID-19 pandemic has changed social life of the people lives in the whole world but most of them did not like the policy of wearing masks which has been imposed by the government. As for the impacts of wearing masks, they have stated they cannot see other's facial expressions, lack of social interaction and cannot identify the people. Though the mask policy affects the social life of the people, majority of the participants agreed to the fact that it helps to prevent the spread of the infection and reduce the possibility of getting infected. We compared risk-related and altruism-related motives by measuring overall preferences rather than focusing on specific messages. As a result, our findings may apply to situations other than those in which people wear masks voluntarily. As a result of our findings, policy implications for disseminating public-health advice to essential workers during the COVID-19 epidemic can be drawn.

**Conclusion:** In general, our findings provide another example of how empathy may be used to promote wearing face masks. Therefore, saving lives, particularly those of our society's most vulnerable members is very crucial.

**Key Words:** *Behavioral, Consequence, COVID-19, Mask policies, Social*

## OP 12

### **Evaluation of depression and anxiety among quarantined respondents of Covid-19 in Colombo district, Sri Lanka**

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**Introduction:** Depression and Anxiety are the most commonly diagnosed psychological disorders worldwide and due to the Covid-19 pandemic, people all around the world had no option but to live under quarantine. Studies have analyzed that quarantine-related symptoms of stress are associated with several negative psychological outcomes which have triggered psychological disorders such as depression, anxiety, etc. This research aimed to evaluate mental health issues experienced by self-quarantined individuals quarantined for Covid-19.

**Methods:** This research can be categorized as a phenomenological and a retrospective qualitative study. Participants were both male and female in the age group of 20 to 60 years in Colombo district, Sri Lanka with the exclusion criteria being people who had depression and anxiety before quarantine experience. A sample size of 20 individuals was used for this study and a convenient sampling method was used. A question guide consisting of semi-structured, open-ended questions was used to collect data. The gathered data were then analyzed using thematic analysis.

**Results and Discussion:** According to the findings, the majority of respondents reported feeling depressed throughout the quarantine period, indicating a substantial relationship between depression and loneliness. The majority of respondents missed their family members throughout the quarantine period and had trouble coping during the evenings and nights since they were lonely and frequently remembered their relatives. Moreover, the majority of the participants acknowledged spending time on social media and listening to music as a kind of treatment. However, as a result of their excessive use of electronic devices, many people have slept for lengthy periods. Few individuals have taken part in studies and worked through online platforms, resulting in a demanding schedule that limits time for sleep and/or relaxation strategies.

**Conclusion:** The available evidence from this study shows that the Covid-19 pandemic had affected the quarantine respondents by leading them to feel depressed and anxious due to the restrictions of meeting people and engaging in outdoor activities. It is recommended that helplines can be organized by the government, involving qualified psychologists to support people feeling depressed or lonely and give them appropriate advice.

**Key Words:** *Anxiety, Covid-19, Depression, Evaluation, Quarantined respondents*

## OP 13

### **Student nurses' perception regarding clinical practice during Covid-19 pandemic in School of Nursing, Kalutara**

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**Introduction:** Even during the Covid-19 pandemic, nursing students needed to get clinical training in clinical settings as nursing is a practice-based profession. This was challenging and would have made a psychological impact on students. The aim of this study was to study third-year student nurses' perceptions regarding clinical practice during the Covid-19 pandemic.

**Methods:** A cross-sectional, descriptive survey study was conducted among third-year student nurses in School of Nursing, Kalutara. A sample size of 111 students was selected conveniently. Data was collected using a self-administered questionnaire and analyzed descriptively using Microsoft Excel.

**Results and Discussion:** Response rate was 100%. Respondents consisted of 12 males and 99 females. Over half of the students (56.7%, n=63) agreed that practicing during the Covid-19 period would be helpful to face a similar situation in the future and 59.4% (n=66) students stated that they would be able to get experience in caring safely for patients with the infected disease. The majority of the students notified (17.1% strongly agreed and 53.2% agreed) that they were not able to practice procedures they learned at nursing school. However, 26.1% strongly agreed and 49.5% agreed that they could learn to wear personal protective equipment properly. Nearly two-thirds of nursing students (63.9%, n=71) expressed that the nursing staff sometimes support them during clinical practice while 15.3% (n=17) stated the nursing staff never or only rarely support them. A minority (12.6%, n=14) stated that the hospital never supplied them with adequate equipment during clinical practice. Students also mentioned the need for support from the academic staff. Nearly two-thirds of the students (64.8%, n=72) stated that they received information about precautions against droplet transmission of infection. However, 39.6% of students (n=44) stated that the academic staff did not provide solutions to the problems arising in the clinical setting and 69.3% (n=77) stated that they did not receive guidance from academic staff in clinical settings.

**Conclusion:** Nursing students expressed that they need support from nursing staff and academic staff. It is essential that nursing schools and clinical settings communicate about the issues related to students' clinical learning and provide opportunities to develop skills while ensuring the safety of the students.

**Key Words:** *Student nurse, Perception, Covid-19, Pandemic, Clinical practice*

## OP 14

### Assessing the impact of Covid-19 on dietary choices and habits among healthcare students in Sri Lanka

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**Introduction:** The coronavirus (Covid-19) is a viral disease that is enormously impacting the globe and causing enormous morbidity and mortality. Yet there is less evidence on the impact of Covid-19 on dietary changes of population. This study was aimed to assess the impact of Covid-19 on dietary intake among healthcare students in Sri Lanka.

**Methods:** A descriptive, cross-sectional study was conducted by selecting a sample of healthcare students who have been studying in the field of healthcare for a minimum of one year in Sri Lanka. The snowball sampling technique was used to distribute a self-administered, open-ended questionnaire. The collected data were descriptively analyzed using Microsoft Excel.

**Results and Discussion:** The questionnaire was circulated among healthcare students, where the majority were females (65.7%, n=67). Most of the participants were 18-20 years in age (51%, n=52), and the majority were not employed (85.3%, n=87). Relatively a large percentage of individuals consumed more food during the quarantine period (38.2%, n=39) and about 23.5% of the respondents agreed to say they decidedly consumed more food (23.5%, n=24). A relatively high amount of participants agreed to eat three meals per day (43.1%, n=44). The majority of the respondents tend to cook more often than usual (56.9%, n=58). The majority of the participants agreed that they snacked more than usual (52.9%, n=54). Most of the respondents also had a noticeable increase in body weight (53.9%, n=55). Many individuals also agreed to have the fear of contracting the coronavirus during grocery shopping (41.2%, n=42). Only 2% of the participants agreed that they smoked during quarantine.

**Conclusion:** The majority had consumed more food during the pandemic and had weight changes for a variety of reasons. Therefore, awareness programs and exercise routines should be implemented.

**Key Words:** *Healthcare students, Dietary, Habits, Covid-19*

## OP 15

### **Psychological impact of Covid-19 pandemic on the family of healthcare professionals: A qualitative study**

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**Introduction:** The Covid-19 pandemic has severely impacted the healthcare services by implementing high work pressure on healthcare workers (HCWs) to save lives and prevent serious illness. Several studies have looked at the psychological effects of the Covid-19 pandemic on health professionals to date. However, there is a scarcity of evidence on the social effect of the Covid-19 outbreak on families of health professionals. To fill this void, the current research aimed to assess the mental health of HCW's family members and contributing factors who had direct or indirect interaction with confirmed or suspected Covid-19 patients.

**Methods:** This study is a qualitative research where semi-structured interviews were conducted with the family members of healthcare workers, who are working during the pandemic. A convenience sampling approach was followed. Data was collected until point of saturation was reached, after which a total of 10 participants were interviewed via a virtual platform and a question guide. Thematic analysis was used to analyze the collected data.

**Results and Discussion:** Participants were mostly female and ranged in age from 21 to 65. The most common type of psychological impact was stress. The family members were confronted with dilemmas centered on balancing the risks of infection management with the necessity to provide care and comfort to the HCWs. The study found two-factors contributing to the perceived psychological burden of the family members; fear of infection, uncertainty and lack of control. Three coping techniques and protective factors were identified; spiritual support, staying connected, safety measures. Considering the mental health related concerns of family members of HCWs, none of the family members were diagnosed with any psychological conditions. The family members of HCWs noted that they were under immense stress and were helpless as a result of various factors. Contrastingly, some of the participants considered this time to be of respite, drawing on reserves of resilience and adapting their coping skills to keep their positive view.

**Conclusion:** The mentality of the family members of HCWs is important for the mental health of the HCWs, which will indirectly affect patient care. Thus, implementing more flexible work schedules and providing support for these HCWs and their family is a vital responsibility.

**Key Words:** *Mental health, Covid-19, Stress, Family, Psychological impact*



## OP 16

### **Socioeconomic problems faced during Covid-19 pandemic by the people in Colombo district, Sri Lanka - 2021**

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**Introduction:** The Covid-19 pandemic has probably threatened the entire humanity around the world in social and economic perspectives. Since Sri Lankan community is experiencing different issues related to Covid-19 pandemic, this research was done to investigate the impact, not only on economy but also on social affairs where people shared their thoughts and experiences about the current situation while comparing socioeconomic status before and after the Covid-19 pandemic.

**Methods:** A qualitative, descriptive study was followed with the aid of in-depth interviews through a virtual platform to collect data. Participants who are self-employed, from Colombo district, within the age category of 30 to 50 were selected using purposive sampling techniques until the saturation point was reached. Data collection was done through one-to-one in-depth interviews based on a question guide and analyzed according to thematic analysis.

**Results and Discussion:** In the exclusive review of the socioeconomic problems faced by the people during the Covid-19 pandemic, the results were analysed under three major themes. The first theme was ‘economic aspect with regards to their self-employment business’, where the participants stated that “prior to the pandemic, everything was successful and had been profitable”, while some highlighted that “work has been easier after the pandemic”. However, the other respondents were not satisfied with the working conditions that they had to face after the pandemic. The second theme was, ‘opinions on the current economic crisis within the country’. As per the responses, the participants highlighted the fact that “Sri Lanka's economy has been drastically impacted”. The third theme was ‘the social aspect’. This theme was assessed to see what their opinions were with regards to the new way of life that they had never been accustomed to before, and many found that “the lifestyle was very challenging, unsettling, and not easy to adapt to, and if continued, would have a significant negative impact”, while some others found it “very relaxing with a lot of freedom despite the health condition”. Under this, participants were assessed for certain subthemes to see if they were psychologically affected due to any other coexisting factors. The other subthemes were to explore how it affected the overall family and how technology has affected their lifestyle.

**Conclusion:** Covid-19 has definitely impacted the lives of self-employed people in economic and social aspects. However, it is recommended for people to get familiar with the new lifestyle while introducing new approaches to their businesses amid the pandemic to reduce both the economic and psychological issues. Moreover, these people should be provided with opportunities to overcome their current status and to be normalized with the pandemic.

**Key Words:** *Covid-19, Economic, Impact, Problems, Social*

# **PHYSIOTHERAPY**

## PLENARY – OP 17

### Long Covid and the role of Physiotherapy

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Long Covid is the term applied to the post-acute sequelae seen in people who have been infected with the SARS-CoV-2 virus that results in Covid-19. Ten percent of people infected have symptoms that continue for more than twelve weeks. Whilst it is not known what the risk factors are for developing Long Covid, it is known that regardless of the severity of acute Covid-19, Long Covid can be severely disabling. Long Covid can affect multiple body systems and manifests in a range of symptoms such as fatigue and post-exertional malaise, aches and pain; shortness of breath; breathing discomfort; dry cough or sputum production and cognitive dysfunction. Using research from other post-viral conditions as a basis, recommendations include that physiotherapists fully understand the need to assess the patient to screen for post-exertional malaise, delayed cardiac and autonomic dysfunction and exertional oxygen desaturation prior to implementing an exercise-based rehabilitation program. It is also important to make the program person centered with need to include more than just exercise with techniques such as breathing retraining, activity and pacing management and other strategies to ensure that person-specific issues are addressed.

## OP 18

### **Cervical manual therapy plus conventional physiotherapy in the management of frozen shoulder disorder in patients attending National Hospital Kandy, Sri Lanka**

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**Introduction:** Frozen Shoulder (FS) is one of the common musculoskeletal burdens among the middle and older population. Manipulation of the cervical, thoracic spine, and adjacent ribs of FS can generate a positive outcome. Therefore, the study aims to determine the effectiveness of the mobilization of the asymptomatic cervical spine, by using Mulligans' (SMWAM) in FS patients and to evaluate the pain reduction and range of motion (ROM) between conventional physiotherapy and cervical manipulation with conventional physiotherapy in FS patients.

**Methods:** A case series was conducted at National Hospital Kandy, Sri Lanka (NHKS). 12 patients with 4-9 months of FS were included in this case series. Six treatment sessions were conducted within two weeks. All patients were treated with stretching techniques of shoulder flexors and abductors, electrotherapy modalities such as ultrasound, shortwave diathermy, Transcutaneous Electrical Stimulation, and active exercises were used as conventional physiotherapy treatments. After that, SMWAM was commenced. SPADI (Shoulder Pain and Disability Index) questionnaire and goniometer for Range of Motion (ROM) were measured at baseline and end of the 6<sup>th</sup> session.

**Results and Discussion:** 4 males and 8 females participated in the study. The mean age of patients was 55.75 years. The mean value of the increase of ROM percentage is 55.39%. The mean value of pain reduction percentage is 56.56%. The mean value of the disability reduction percentage of FS patients was 54.15%. The mean improvement percentage of the SPADI score is 59.67%.

**Conclusion:** All patients exhibit an increase in shoulder ROM, reduction of pain, and improved shoulder functions during activities of daily living. Results of this case series will not conclude the cause and effect relationship. However, the outcomes of this case series resemble the outcomes of randomized control trials in literature where they have used cervical manipulation or SMWAM technique on shoulder pain patients. This case series encourages physiotherapists to use SMWAM on FS patients for better improvements.

**Key Words:** *Adhesive capsulitis, Frozen shoulder, Physiotherapy, ROM, SMWAM*

## OP 19

### **Patient's level of satisfaction and adherence toward the outpatient physiotherapy clinics in government hospitals in Anuradhapura district, Sri Lanka: a mixed-method study design**

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**Introduction:** Patient satisfaction and adherence toward physiotherapy treatments are considered as indicators of quality healthcare. The Sri Lankan government has spent a huge amount on uplifting the quality of care. Therefore, it is important to evaluate the level of patient satisfaction and level of adherence in patients attending outpatient physiotherapy clinics.

**Methods:** A mixed study was conducted with a sample size of 180 participants in government hospitals of the Anuradhapura district. A quantitative study was evaluated the level of patient satisfaction, home-based adherence and clinic-based adherence. The Likert type scales were used for data collection, the MedRisk scale was used to measure patient satisfaction, the RAdMAT scale is used to measure the patients' home-based adherence and the SIRAS scale was used to measure the patient's clinic-based adherence. For the qualitative study, in-depth interviews were conducted. Mann-Whitney U test, Kruskal-willies test, Cronbach alpha and Spearman coefficient correlation tests were done to analyze the data.

**Results:** The majority of the patients were generally satisfied with physiotherapy treatments. Patients home-based adherence was 74.5% (n=134) and clinic-based adherence was 73.6% (n=132). patient satisfaction and home-based adherence have shown a significant association with hospital type where patients receive physiotherapy (p<0.05). Clinic-based adherence has shown an association with gender (p<0.05). However, no association was found with other demographic data.

**Conclusion:** The study showed patient satisfaction and home-based adherence are positively associated with hospital type and clinic-based adherence has associated with gender.

**Key Words:** *Adherence, Physiotherapy, Outpatient, Quality of care, Satisfaction*

**The effects of physical activity on sleep quality in children with autism spectrum disorder (ASD) living in an urban community in Western province, Sri Lanka**

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**Introduction:** Investigating effective treatment interventions for comorbidities of ASD has recently been given great attention due to the recently reported high prevalence rates of ASD. Sleep disturbance in ASD children is observed as a significant health concern that affects their quality of life. Physical exercises and physical activity (PA) participation have shown a positive impact on reducing stereotypic behaviour and poor sleep in ASD groups. However, there is a shortage of evidence regarding the impact of PA on the sleep quality of these children. Therefore, the primary aim of this study is to investigate the effects of PA on sleep Quality in children with ASD living in an urban community in Western province, Sri Lanka.

**Methods:** A cross-sectional analytical survey study was conducted among 31 parents who are having at least one ASD diagnosed child and are primarily located in Western province, Sri Lanka. The survey was administered online, and proxy-reported data were collected for the key variables, PA and sleep quality of the child. PA was assessed through the Physical Activity Questionnaire for children (PAQ-C), and sleep quality was evaluated through the Children's Sleep Habits Questionnaire (CSHQ). The association between PA and sleep quality, sleep duration, sleep anxiety and other correlations between key variables were assessed with non-parametric tests.

**Results and Discussion:** Clinically significant sleep disturbance was identified in 90.3% (n=28) of the sample. Sufficient PA level was reported by 71% (n=22) of the participants. The results indicated that there is no significant association between PA level and sleep quality in the tested sample (p=0.863). Further, the findings revealed no significant relationship between PA level and sleep duration subdomain (U=79.50, p=0.403) and PA and sleep anxiety (U=65.00, p=0.147).

**Conclusion:** There is no association between PA and sleep quality, level of PA and sleep duration and level of PA and sleep anxiety among children with ASD living in the urban community of Western province, Sri Lanka. Further research is encouraged with objective measurements of PA and sleeps quality along with qualitative analysis of both domains.

**Key Words:** *Autism spectrum disorder, Physical activity, Sleep quality, Urban*

## OP 21

### **Evaluation of evidence-based clinical practice and barriers for the evidence-based clinical practice among physiotherapists in Sri Lanka: a mixed-method study design**

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**Introduction:** Evidence-based practice (EBP) is determined as a fundamental requirement in continuous professional development. The study aims to evaluate the EBP and barriers to it among Physiotherapists (PTs) in Sri Lanka. The study focused on the attitudes, educational preparation and confidence towards the activities related to EBP and associated factors.

**Methods:** A mixed methodology composed of two phases. Phase one was the Quantitative study (QNS); data were collected via a self-administered questionnaire. 280 questionnaires were distributed and 138 were returned. The second phase was the qualitative study (QLS) phase, in which semi-structured in-depth interviews were conducted among two superintendent PTs, three chief PTs and five senior PTs. Data analysis was conducted using SPSS for QNS and thematic analysis was done for QLS.

**Results and Discussion:** 62.3% (n=86) were female, 37.7% (n=52) were male. There were 10 diploma holders, 126 Baccalaureates and 2 PTs with Professional master's degrees. The results of QNS and QLS depicted that the PTs have a generally positive attitude towards EBP. The means score obtained for attitudes was 3.59 after reverse coding of the negative statements of EBPAS-36 (Evidence-based Practice Attitude Scale-36). The least understood term was 'heterogeneity' and 'odds-ratio'. Professional Master's degree holders demonstrated a significantly greater level of understanding of terms related to EBP (P=0.029). The least level of confidence was shown for the critical appraising of the literature (65.2%, n=90) although greater confidence was shown towards applying evidence (88.4%, n=122), the most commonly reported barrier was insufficient time allocated by the management (67.4%, n=93) and lack of computer access (36.2%, n=50). QLS results also depicted that lack of time, no access to a database, lack of support from colleagues, lack of skills and financial support as the main discouraging factors for EBP.

**Conclusion:** Despite the presence of a positive attitude towards EBP, it was not established that the process of EBP is systematically applied in practice. Thus the barriers should be identified in-depth with further research and these should be ameliorated to establish a better EBP culture in Sri Lanka.

**Key Words:** *Attitudes, Barriers, Confidence, Evidence-based practice, Physiotherapists*

**Peak expiratory flow rate and its correlation to the level of physical activity in a selected group of healthy Advanced Level students in the Gampaha district**

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**Introduction:** Physical activity (PA) has well-established health-related effects in both healthy and unhealthy individuals but little is known about the influence of PA on pulmonary function. The peak expiratory flow rate is one of the important parameters for evaluating lung function. As PA has been shown to decrease during adolescence significantly, it would be beneficial to identify the relationship between PA and lung function through peak expiratory flow rate in adolescents. This study aimed to describe PA level, peak expiratory flow rate and to determine their relationship in advanced level students.

**Methods:** A cross-sectional study was done at randomly selected four schools in the Gampaha district, involving 100 participants aged 17-18 years old. 50 males and 50 female students were assessed using a physical activity questionnaire for adolescents (PAQ-A) for physical activity level. Wall-mounted stadiometer and Mini Wright peak flow meter were used to assess height and peak expiratory flow rate. A socio-demographic questionnaire was given to assess the effect of socio-demographic characteristics on PEF and PA levels. Data were analyzed using independent sample t-test, Pearson correlation test and one-way ANOVA test on SPSS version 25.

**Results:** Mean PAQ-A score was significantly higher in boys ( $2.115 \pm 0.804$ ) compared to girls ( $1.435 \pm 0.30$ ). Boys had higher mean scores for peak expiratory flow rate ( $85.29 \pm 10.90$ ) when equated to females ( $76.53 \pm 13.07$ ). A positive correlation was found between PA level and peak expiratory flow rate ( $r=0.379$ ;  $p<0.01$ ) when considering the male participants and the whole study population. However, no significant correlation was found in female participants ( $p>0.05$ ).

**Conclusion:** Increased PA levels lead to increased peak expiratory flow rate, an indicator of better lung function. The gender difference was observed in PA level and peak expiratory flow rate where males outperform females.

**Key Words:** *Healthy, Peak expiratory flow rate, Physical activity, Students*



## Impact of Covid-19 restrictions on exercise habits of Sri Lankan youth

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**Introduction:** Covid-19 in Sri Lanka led to several periods of complete lockdown of the country or provinces. Whilst the impact of Covid-19 in form of death and disability is obvious, it is also important to note its indirect impacts on preventive health. It is important to understand the impact of the said restrictions on exercise and physical activity level of the youth, as it can lead to long-term unhealthy behaviors and habits among them.

**Methods:** A self-administered online questionnaire was administered among 300 conveniently selected undergraduates from a Higher Education institute in the Western Province of Sri Lanka. To assess the Physical activity level, the International Physical Activity Questionnaire – Short Form (IPAQ-SF), self-administered version was used. Basic demographics and factors that are likely to impact physical activity were also included in the questionnaire.

**Results and Discussion:** Out of 246 respondents, the male: female ratio was 46:54. The majority were from urban settings. The least affected was the rigorous or cardiovascular or more planned exercises and reduced from 55 to 46 minutes a day during the lockdown. The Moderate activities were reduced by 18 minutes, walking hours were reduced by 28 minutes a day and sitting increased by 72 minutes. None of the changes significantly depended on gender, age, or residential area. However, moderate and walking activity levels seemed to change less in those living in houses compared to units or apartments.

**Conclusion:** The planned exercises seemed to be minimally affected. Such activities probably had the adequate motivation and associated reinforcing factors to stay unaffected during the lockdown as well. Promote a planned 20–30-minute structured cardiovascular program to be practiced irrespective of lockdown status. This can be done via the student welfare society of the institute.

**Key Words:** Physical activity, Exercises, Covid-19, Travel restrictions, Youth

**Impact of physical activity on the psychological well-being of nursing students at International Institute of Health Sciences, Sri Lanka**

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**Introduction:** Nursing is considered as a stressful occupation where they have an increasingly important role and greater responsibility towards patients. There can be various stressors that affect the psychological well-being of student nurses which can be harmful, leading to negative conditions. This research aimed to find the impact of physical activities on the psychological well-being of student nurses.

**Methods:** A descriptive, cross-sectional study was carried out over three months. Data was collected using a questionnaire distributed among 50 nursing students at International Institute of Health Sciences using a convenience-sampling technique. International Physical Activity Questionnaire (IPAQ) - Short Form and 18-item Psychological Well-Being (PWB) scale were used to gather data. Individual scores were categorized under either of the categories and analyzed descriptively.

**Results and Discussion:** The participants consisted of 24% (n=12) males. The majority of the students (70%, n=35) were between ages 20-23 years. With regards to level of physical activity, minority of participants (24%, n=12) were engaged in vigorous physical activities, such as heavy lifting or aerobics, three days per week whereas 30% (n=15) were doing moderate physical activities, such as carrying light loads or bicycling at a regular pace, one day per week. The majority of the students (56%, n=28) had good psychological well-being, whereas 6% (n=3) scored poorly.

**Conclusion:** The study findings illustrate that nearly half of the student nurses in the current study were not doing any vigorous or moderate physical activity. This could be the reason for average to poor psychological well-being. It is recommended to conduct further studies with a diverse and larger sample to identify barriers in engaging with physical activities among nursing students.

**Key Words:** *Nursing students, Physical activity, Psychological, Well-being*

# **PUBLIC HEALTH**

## PLENARY – OP 25

### Public health - Information, misinformation and disinformation

**Dr. Nihal De Silva**

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Health information was very secretive in early human history. It also had a divine component which gave it a mysterious flavor. This is so even today in some cultures – even some cultures considering themselves educated and modern.

Early in history, the art of medicine also seemed to run in families or guilds and was accessible only to the upper crust in society. With increase in human population, changing from servitude to independence, increase in human experience and knowledge, and finally, some amount of “financial” affordability, the concept of health being in your own hands developed. The divine component decreased in influence, except when situations were desperate, and it is so even today. Somewhere along this path, governments got involved to different extents depending on political philosophy and economic resources. Standardization and regulation of services was the next step.

Till about the 15th century, societies were small, isolated – compared to present day standards, monolingual, suspicious of neighboring communities and had strict hierarchies. All this started changing from the beginning of the Industrial Revolution, leading to what we see today. The health of an individual was of great importance to a well-functioning society, its economy and as a human right. Public Health came into being. Today, Governments decide on public health issues with an aura of authority but skepticism from the public.

Especially after World War II, the rapid expansion of knowledge, its dissemination and access to it, made health issues of political significance. The spread of ‘so-called’ health information became so commercialized, that today’s health information does not give respect to an evidence base. This leads to mass confusion.

The best example we have of this is today’s Covid-19 pandemic. Everyone is an expert, thanks to the internet and its twin cousin, the human gossip machine. The lines between dependable information, misinformation and disinformation are very blurred – the latter now even being considered criminal by certain jurisdictions.

The public needs further education.

**Oral health knowledge, attitudes and oral hygiene practices among adolescents in selected schools of Trincomalee district, Eastern province of Sri Lanka**

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**Introduction:** Oral health has become a major unmet health care need among adolescents who are attending schools worldwide. Socioeconomic factors including poverty, lack of education, and unsupportive traditions increase the relative risk of oral diseases. Good oral health can be acquired through proper knowledge, instilling positive attitudes, and effective self-hygiene practices. This survey was aimed to assess the oral health knowledge, attitudes, and oral hygiene practices among adolescents in selected schools of Trincomalee district, Eastern province of Sri Lanka.

**Methods:** This was a descriptive, cross-sectional study conducted in August 2021 in the Trincomalee district, in the Eastern province of Sri Lanka. Data were collected through a self-administered online questionnaire among 360 students from two schools from the Trincomalee district. Oral health knowledge, oral health attitudes, and oral hygiene practices were included as dependent variables. Collected data was transferred into an Excel spreadsheet. SPSS version 25.0 was used to analyze the data and  $p < 0.05$  was considered as the significance level.

**Results and Discussion:** Among the total participants 88.1%, 71.1%, and 96.9% of participants expressed their knowledge, attitude, and practices respectively, in relation to oral health. Only 32.2% of the total students have reported about regular dental care programs in schools. Nearly 52.2% reported high treatment costs could be the major barrier to regular dental visits. Only 18.3% of the participants were familiar with dental flossing. Age and ethnicity had a statistical significance with oral health knowledge, attitudes and hygiene practices at the level of  $\alpha = 0.05$  ( $p < 0.05$ ).

**Conclusion:** A majority of the students have a high level of knowledge and favorable attitudes whereas a moderate level of hygiene practices in accordance with oral health. Female predominance could be seen in all three variables. The null hypothesis could be excluded with the positive linear correlation between variables. The schools need to serve as the best platform for the promotion of oral health among teenagers. The dental consultation could be made affordable to encourage patronage.

**Key Words:** *Oral health, Knowledge, Attitudes, Practices, Adolescents*

**Knowledge, attitude, and practice among pregnant mothers on maternal nutrition and associated factors in Kandy district, Sri Lanka**

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**Introduction:** Proper maternal nutrition is an essential factor in delivering a healthy baby. A majority of mothers are aware of the importance of nutrients such as vitamin D, iodine, calcium, and folic acid. However, in some areas of the country, the lack of necessary acknowledgment about the nutrients needed in this period for women has led to problems like stillbirths, miscarriages, etc. for both mother and baby. This study aimed to assess the knowledge, attitudes, and practices regarding maternal nutrition among pregnant mothers.

**Methods:** A descriptive cross-sectional study was conducted among 121 pregnant mothers. A convenient sampling technique was used with a self-administered questionnaire. The data were analyzed by the SPSS 25 statistical package.

**Results and Discussion:** The majority had a good educational status; 40.5% (n=49) passed A/L s, and 28.9% (n=35) were degree holders. As identified, the major causes of undernutrition were by consuming food lower in nutrients (51.2%, n=62) and not getting enough diet (40.5%, n=49). A higher percentage of mothers 81.8% (n=99) had responded to iron as the most important supplement to be used during pregnancy, while only 4.9% (n=6) had responded to calcium. The majority stated dizziness as the major symptom to identify anemia. Out of the involvers, 58.3% (n=70) had picked vitamin C-rich food as the way to enhance iron absorption when taken with a diet, while 42.1% (n=51) chose caffeine, tea, etc. as inhibitors of iron absorption. A greater percentage of 85.1% (n=103) expressed hospitals as the source of information on maternal nutrition. More than half of the participants 66.9% (n=81) had agreed to folic acid consumption before pregnancy and 71.9% (n=87) during pregnancy and 74.4% (n=90) agreed to consume calcium tablets during pregnancy. According to the responses, a greater number of participants agreed and strongly agreed to take all three main meals, 68.9% (n=83) disagreed with alcohol consumption and 68.6% (n=83) disagreed with smoking during pregnancy. The majority was neutral about taking the iron and calcium tablets at once.

**Conclusion:** A satisfactory level of knowledge was identified; however, there is a need for improvement in practices and constant evaluation.

**Key Words:** *Attitude, Knowledge, Maternal nutrition, Practices, Pregnant mothers*

## OP 28

### Perceptions on a healthy diet among the general public in Puttalam District, Sri Lanka

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**Introduction:** Nutrition plays a fundamental role in the prevention, management and treatment of diseases. A healthy diet provides nutrients to maintain or improve overall health. Perceptions influence the nutritional status. Despite numerous dietary recommendations, people are more attracted to a rapidly westernizing diet which is the leading cause of various diseases. Therefore, this research aimed to assess the perceptions of a healthy diet among the general public.

**Methods:** A descriptive, cross-sectional study was conducted among a convenient public sample of 402 individuals between 20-59 years. Data was collected through a validated questionnaire. The self-administered questionnaire was circulated via social media platforms among the general public in Puttalam district. Data analysis was done using descriptive analysis methods.

**Results and Discussion:** Nearly half of the respondents (46.4%, n=186) were aged between 20-29 years and all were educated above advanced level. The majority (93.6%, n=376) believed that nutrition is important for a healthy life. Overall, 62.9% (n=253) described their appetite to be good. However, 93.6% (n=376) were willing to make changes in their current dietary habits, out of which the majority (62.9%, n=253) wished to eat more fruits and vegetables. Many (71.2%, n=286) stated that their appetite depends on the hunger which they have at the time of meals. Most of the participants (83.5%, n=335) had never received dietary advice from a medical practitioner. Out of the sample, 16.1% (n=65) were concerned about their body weight and tried to gain or lose weight. Only 43.4% (n=174) chose dietary modifications to gain or lose weight. Smell or taste of food (44.9%, n=180) and weight maintenance (29.6%, n=119) were the main reasons for avoiding food.

**Conclusion:** The perceptions on a healthy diet among the public are satisfactory. Healthcare providers must educate and guide the public on maintaining their health through diet.

**Key Words:** *Diet, Healthy diet, Nutrition, Perceptions, Public*

**Perception, hygiene practices, and sociocultural restrictions related to menstruation among female adolescents and young adults in the Gampaha district, Sri Lanka**

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**Introduction:** Menstruation is a natural, physiological, and psychological moment in women's reproductive life during adolescence. Menstruation hygiene is an important area during the menstrual period of an adolescent girl as it may lead to poor quality of life resulting sequence of complications. This study aimed to identify the perception, hygiene practices, and sociocultural restrictions related to Menstruation among female adolescents and young adults.

**Method:** A descriptive cross-sectional study was conducted on 150 female residents with the age between 16-27 years in the Gampaha district via an online questionnaire prepared with standard reference. Convenient sampling was used to recruit participants and the data was analyzed with the aid of Excel and Statistical Package for social sciences (SPSS) version 20.

**Results and Discussion:** 58.2% (n=87) of participants have heard menstruation from their mother and 64.9% (n=97) think menstruation happens to maintain reproduction. The majority (53%, n=80) of them see menstruation as bothersome whereas 50.8% (n=76) participants don't change bed sheets and purify bed on the 4th day of menstruation. Majority (93.4%, n=140) use sanitary pads as absorbent and minority (5.8%, n=8) use all types of absorbents while 52.5% (n=78) burn the used materials, 45.9% (n=69) use dustbins to dispose them. 86.3% (n=129) of them fully discard the used materials and 49.2% (n=73) change absorbents 3 or 2 times per day. 91.3% (n=137) wash external genitalia 2 or more times per day, 69% (n=103) use soap and water. 69.3% (n=104) think women should be able to use the washroom while menstruating. 71.8% (n=108) were having restrictions at home during menstruation. 59.91% (n=90) of them do not wear a specific set of clothes during menstruation while 41.59% (n=62) do not pray during menstruation. Furthermore, 71.2% (n=107) agree, menstrual restriction practices are encouraged by their mother and with the given opportunity participants like to stop the restriction of entering temples during menstruation.

**Conclusion:** Findings reveal that majority of respondents had average awareness and knowledge on hygiene practices related to menstruation and the majority of them have menstrual restrictions at home. Therefore, the demand for more advanced educational programs has become a need.

**Key Words:** *Adolescents, Hygiene, Menstruation, Perception, Practices, Sociocultural restrictions*



## OP 30

### **A study on awareness and practices on hypertension among hypertensive patients referring to medical clinic of Base Hospital Balangoda, Sri Lanka**

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**Introduction:** Hypertension (HTN) is one of the major non communicable diseases, can lead to severe complications and increases the risk of stroke, heart disease and death. Undiagnosed, HTN can cause damage to the cardiovascular system and internal organs of the body, such as the heart, kidneys and brain. Regularly checking blood pressure is very important, as there will usually be no symptoms to make the patient aware of the disease. This study aimed at assessing the patient's awareness on hypertension and practices among hypertensive patients in the medical clinic of base hospital Balangoda.

**Methods:** The study methodology was a cross sectional and simple random sampling technique was used. Study samples were hypertensive patients of the medical clinic of base hospital Balangoda. In this study data collection method was a self-administered questionnaire. Printed form designed questionnaire was used to draw out information from the patients. Data was analyzed using SPSS 25.

**Results and discussion:** Throughout the study 150 patients participated to study on awareness and practices about hypertension. Small number of participants are aware how to represent systolic, diastolic blood pressure and their normal values. Majority of the participants are not aware that HTN is not a curable disease. Only 40% of the participants were aware about the last BP reading. Even though they were aware of health education, a significant number of participants do not check blood pressure regularly and 60% of participants never consult a cardiologist for a heart exam and 18.7% of participants never check blood cholesterol. But Majority (87.3%) of the participants say the most important practice is taking medication.

**Conclusion:** In this study the level of awareness on hypertension was low. Health education programs and practical strategies are required to improve awareness of hypertension in the community. The health workers have to play an important part by educating the patients.

**Key Words:** *Awareness, Practices, Hypertension, Medical clinic*

## OP 31

### **Knowledge, attitude and practice regarding dengue fever among general public in Puttalam district, Sri Lanka**

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**Introduction:** Dengue is a mosquito borne flavivirus infection which has been endemic in Sri Lanka since late 19th century. Since there is no effective vaccination to prevent this deadly disease, knowledge of early recognition and appropriate management of the disease and practice of effective vector control are mandatory to control the disease. Aim of this study is to identify knowledge, practices, and attitudes regarding dengue fever among general population in Puttalam district, Sri Lanka

**Methods:** Hospital based descriptive cross-sectional study was conducted on 100 patients who attended the medical units of the base hospital in Puttalam. Convenience sampling technique was used for the sampling method. Data were collected using a standard questionnaire and statistical analysis was done using SPSS software.

**Results and Discussion:** Data collected from 100 participants (62 males, 38 females) were used for primary analysis. Only 58% of the participants had an average knowledge on dengue fever. Knowledge had a significant association with education level ( $p < 0.01$ ). Overall attitude towards dengue and its prevention was at a higher level. Furthermore, 44% of the participants demonstrated satisfactory attitudes and 32 % claimed to have used good practices towards dengue. Even though the study population was fairly educated, 16% of them had a fair knowledge regarding dengue which could be a reason for frequent outbreaks and increased mortality. Majority of the study population believed that dengue is a severe condition (54%) but it is preventable. Knowing that dengue fever is a serious disease, only 66% of the population claimed that it is both public and government responsibility to adhere to the prevention protocols.

**Conclusion:** Although the attitude towards dengue was good, knowledge was poor. Hence current health educational programs regarding dengue should be reviewed and better and effective educational programs should be implemented.

**Key Words:** *Attitude, Dengue, General public, Knowledge, Practice*

**Assessing the level of awareness on iron deficiency anemia among women of childbearing age in rural areas in Anuradhapura district, Sri Lanka**

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**Introduction:** Anemia is a major health problem throughout the world and is higher in developing countries like Sri Lanka. Anemia is characterized by lack of the oxygen carried in blood and inability to meet body needs and is categorized into three groups: mild, moderate, and severe. Women of childbearing age are more susceptible to anemia. The aim of this study is to assess the level of awareness and attitude on iron deficiency anemia among women of childbearing age.

**Methods:** A descriptive, cross-sectional study was done among a total of 200 women in their childbearing age, whom were selected randomly. A questionnaire with three main parts was distributed among the sample to collect data. The collected data was analysed using descriptive and inferential statistics.

**Results and Discussion:** Out of the total participants, only 6% (n=12) had an excellent knowledge regarding iron deficiency anemia. The majority of the respondents (57%, n=114) were having good knowledge regarding anemia (causes, signs, symptoms, and treatment). Moreover, 29% of the participants (n=58) had average knowledge. Most of the respondents (90%, n=180) of pregnant mothers have heard about iron deficiency anemia. Furthermore, the majority of the respondents (92.5%, n=185) correctly defined the main cause of anemia as iron deficiency. A significantly high percentage (43.5%, n=87) strongly agreed with the statement, which stated “any childbearing-aged woman can be affected by anemia.” Most of the respondents (54%, n=108) strongly agreed with the statement “regular meals or feeding can prevent iron deficiency anemia.” The majority of the respondents (92.5%, n=185) correctly defined the main cause of anemia as iron deficiency.

**Conclusion:** Anemia remains a very common health problem among women in their reproductive age and leads to a high morbidity and mortality rates. Moreover, even though most of the women had good knowledge regarding anemia, there has to be some form of awareness campaigns conducted to educate others to improve health outcomes on anemia.

**Key Words:** *Anemia, Iron deficiency, Causes, Symptoms, Reproductive age*

## OP 33

### **Prevalence of sexual assaults in public transportation among females in Colombo district, Sri Lanka**

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**Introduction:** Sexual assault refers to a wide range of unwanted sexual actions that criminals sometimes employ to exert authority and control over others or a sexual act that occurs without the consent of the victim. Any improper sexual advancement, verbal or physical sexual action or gesture, solicitation for sexual favors, or any other sexual conduct that may reasonably be expected or perceived to cause offense or embarrassment to another is considered sexual harassment. This study is aimed to evaluate the prevalence of sexual assault among women traveling in public transportation in Colombo district, to explore the actions taken by sexual assault victims and to assess the perception on sexual assaults among the female population in Colombo district.

**Methods:** A descriptive, cross-sectional study was conducted for one and a half months. The 200 female population who use public transportation at least three to five days a week was chosen through a convenience sampling method. A pretested, structured, self-administered questionnaire was provided to the selected population of females. Data analysis was done using Microsoft Excel and SPSS software.

**Results and Discussion:** Majority (60%, n=120) of the participants were 21-30 years of age and 60% of the participants were students. According to the results, 96.5% (n=193) had become a subject of inappropriate behavior. 88.7% (n=177) had experienced sexual assault inside a vehicle and pushing against the body (81.5%, n=163) and rubbing the body (73%, n=146) were the major experiences. 37.8% (n=75) did nothing and 33.7% (n=67) responded with body language as a response. 74% (n=148) revealed that no one helped in the situation of harassment.

**Conclusion:** More research with high scientific quality is needed on the prevalence rates of sexual harassment and offending on public transportation around the world. The high prevalence rates discovered indicate the need for additional research into interventions to reduce offending in this setting. The findings imply that rising economies, in particular, must do more to address the problem of sexual harassment and assault on public transportation. More fundamentally, societal conventions pertaining to women's responsibilities in society must be addressed and challenged.

**Key Words:** *Females, Harassment, Public transport, Sexual assault*

# **EDUCATION**

## PLENARY – OP 34

### **The quest for quality begins at home: Reorienting professional learning and development for higher educators in the global South**

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Delivering quality in higher education is considered to be essential for the achievement of participation and competitiveness at global, national, and institutional levels. Education policymakers regard teaching and research outcomes as benchmarks of success, positioning academics at the centre of this quest for quality. In the global South, many universities have adopted strategies to emulate the pre-eminent Northern institutions, predominantly located in the Anglosphere, including according to high status to study/research credentials linked to such institutions. Professional learning and development (PLD) policies frequently encourage and support overseas sojourns as adding value to staff and their institution on a pathway to improvements in quality. Critical interrogation of the discourses underpinning these policies leads us to consider whether emulation is the best approach to addressing an asymmetrical and hierarchical “geography of academic opportunity” (Bauder, Lujan, & Hannan, 2018, p. 52), or whether it might be wise to use our capacities and strengths to learn about what quality in teaching and research means in our local contexts, and contribute this for others to consider. The current restrictions on international travel provide an opportunity to reorient approaches to PLD and consider the advantages of encouraging practitioner research on teaching and learning as a path to quality grounded in local needs and circumstances. The methods of reflective and reflexive practitioner or action research are well known, but as a model of learning for teaching practitioners the underpinning principles are in accord with current thinking on effective teacher learning (Strom & Viesca, 2020). By adopting this framework for learning in and through practice, higher educators in the global South can not only deliver quality teaching to their students, but they can also develop their research skills, add to publication outputs and international profiles, engage productively with the international educational research community, and make valuable contributions to the field of teaching and learning scholarship that reflect the perspectives of higher education in the global South.

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## OP 35

### **Action research on overcoming the challenges in the online teaching-learning process during Covid-19 lockdown in a private higher education platform**

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**Introduction:** Amidst Covid-19 lockdown, effective online teaching and learning in higher education is a challenge applying different learning theories to modes of online delivery. The purpose of this study was to conduct action research on how to overcome the challenges in the online teaching-learning process during Covid-19 lockdown in non-state higher education platform and also to identify challenges, planning and implementing actions as possible interventions on instructor's online course materials development and delivery, and online teaching methods and strategies.

**Methods:** The course instructor was the primary investigator and data were collected using different instruments including secondary data, reflective journal and online survey questionnaire for over two cycles in three semesters during the pandemic.

**Results and Discussion:** Findings indicate that students in Master's degree programs tend towards heutagogical and U-learning self-regulated independent study modes and bachelor's degree students need synchronous interaction with interactive lectures. Keeping pace with emerging online technology and teaching and learning strategies with interactive concept-based inquiry in lectures and collaborative or independent learning strategies are required as part of professional development for adult educators. An adult educator is a reflective practitioner.

**Conclusion:** This study has implications for institutions of higher education to manage online teaching-learning, time restraints and mode of students' attendance. Teamwork, ongoing professional development, using innovative strategies are learned from this research. Emerging from the study is revisiting organizational policies and creating a measurement tool for innovative online teaching, learning and assessment strategies.

**Key Words:** *Reflective practitioner, Adult learner, Synchronous and asynchronous, U-learning, heutagogy*

## OP 36

### Action research on the ESL challenges in the math curriculum among grade 6 students in a private international school in Sri Lanka

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**Introduction:** Some students struggle to comprehend English as a second language (ESL) due to many difficulties in structuring the learning environment and so on. The purpose of the study is to identify students' difficulties in learning mathematics in the English language, as a second language and the ways to overcome the barriers.

**Methods:** An action study was conducted. A wordless mathematics test, worded mathematics test, and self-administered questionnaire were circulated among 38 sixth grade students from a class of Lyceum International School in Wattala. They were all at the same level based on their averages and academic achievements. Quantitative data analyses were used and 95.8% of the respondents were able to answer the sums correctly.

**Results and Discussion:** 47.37% (n=57) were female students and 52.63% (n=63) were male students. The percentage of respondents whose first language is Sinhala (94.74%, n=114) and Tamil was 5.26% (n=6) which shows that the majority of the students use Sinhala as their native language. The overall distribution of ethnicity was 92.11% (n=111) of Sinhalese, 5.26% (n=6) of Tamils, and 2.63% (n=3) of Muslims in the class. 95.8% (n=116) of the respondents were able to answer the sums correctly for the wordless math test as they are trained to answer direct questions with mathematical operations as the respondents see the symbol. Only 45.72% (n=55) of the respondents could answer the sums correctly for the worded math test because the other 54.28% (n=65) cannot understand the intended message of certain or the complete questions, they also do not understand complex or lengthy questions and due to its lengthiness, they also tend to forget and neglect the next part of the question. The study shows that the English second language learners answer better in wordless math questions better compare to the worded sums as they find difficulty in comprehending the questions properly. Wordless math questions are direct and clear to get the answer successfully but not the statement problems in math.

**Conclusion:** The findings depicted that the students find difficulty in solving Math worded problems, mainly due to the comprehension of the language.

**Key Words:** *Education, English, Language barrier, Math, Practices*



**Action research to identify difficulties in writing in ESL and exploring effective strategies to improve writing among ESL nursing students**

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**Introduction:** The prime motive of this research is to identify and improve the difficulties in writing in English as a second language (ESL) of nursing students. Exploring effective strategies to improve students' writing ability leads to advancing their relevant education and escalates the career to cater the global standards and demands the goals of this study as it is related to the academic development of the students.

**Method:** These students were chosen from the International Institute of Health Sciences (IIHS) in Welisara in Gampaha district, Western province. As the guided action research Kurt Lewin Model was used to plan and to implement the intervention. Several challenges in students' writing were identified during a test that was conducted prior to intervention and the intervention was planned accordingly to improve writing skills. Since the students scored low at the initial writing test, the researcher had an informal interview with some students and evaluated their writing patterns. Students often made mistakes in arranging the sentences and phrases in English or had difficulties in syntax. In addition to that, students were often tricky in developing their ideas into writing and students sometimes faced difficulties in vocabulary. Eventually, they faced confusion when building a good cohesiveness of writing. During the interviews, it was revealed that school teachers with whom these students were learning English language were often hesitant to use various teaching techniques, so they had often used the same or monotonous techniques in teaching writing at their school time. Consequently, the students often felt bored in class and had no active participation. Dictogloss, a writing skill support strategy, was carried out as the intervention (Georgia Department of Education, 2015). After being taught English writing using the Dictogloss technique, the post-test was held to explore the differences between the students' pre-test and post-test scores.

**Results and Discussion:** Again, the researcher interviewed the same students on their writing competency and found out that writing skills have been improved up to a satisfactory level. The mean score increased from 48.75 (pre-test) to 59.62 (cycle 1) to 69.5 (cycle 2). It has been shown that the implementation of the Dictogloss technique has improved the creativeness of the coherent paragraph writing skill. The researcher found out this is not a perfect way to develop their writing, but it was effective to a greater level of improvement. Repeated lessons on vocabulary development and syntax development would help them in bridging the gap of developing English writing.

**Conclusion:** Adding more, Claudia, Sada & Wardah (2017) also found in their research that by applying Dictogloss technique, there is improvement on some aspects of writing such as content, organization and mechanics but grammar and vocabulary did not improve.

**Key Words:** *English as Second Language (ESL), Intervention, Coherent Paragraph, Dictogloss Technique*

**The accommodation of English for Academic Purposes (EAP) students' discipline-specific academic needs in EAP instruction**

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**Introduction:** English for Academic Purposes (EAP) instruction is a popular necessity in English-speaking countries to accommodate the academic needs of international students. In these contexts, the fact that a wide range of academic disciplines is represented by relatively a small number of international students who require assistance with EAP. EAP instruction generally takes the form of English for General Academic Purposes (EGAP). However, EAP learners, especially those that have average proficiency in English, benefit more from teaching and learning materials that are contextually relevant to their disciplines. This study aims to explore how a group of EAP teachers address students' discipline-specific academic needs when students are involved in representing a variety of disciplines.

**Methods:** The study utilized a qualitative case study research design: the case was selected as a Registered Training Organization (RTO) in Melbourne, Australia, and five in-service EAP teachers with a minimum of five years of experience were selected as participants. Data were collected using semi-structured interviews and analysed thematically.

**Results and Discussion:** The need for collaboration (with peers & subject specialists) was an important theme that emerged. It was also evident that attempts to facilitate 'collaboration' were riddled with many practicalities. These findings are discussed with a focus on EAP teaching, learning, and teacher professional development.

**Conclusion:** It was clear that any importance of the need to 'collaborate' has to be introduced very early in EAP teachers' careers. Additionally, EAP teachers' awareness about available and appropriate professional development initiatives have to be raised through constant feedback and evaluation cycles of teaching with their superiors/management.

**Key Words:** *Discipline-specific Needs, English for Academic Purposes Instruction, Collaboration, Specialised Teaching Practices, Student Autonomy*

## OP 39

### Shame and speaking in English: A case study

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**Introduction:** Practices of shame and shaming surrounding the use of English, both in and outside class, inhibit students from using the English language to communicate. This study explores how a group of Chinese university students use ‘elimination’ as a strategy to counter practices of shame and shaming in learning to speak English in class.

**Methods:** The study included a qualitative case study design; a two-male and eight-female sample was used as participants in the study. All participants were non-English major students from a leading university in Sichuan, China. Data were collected using semi-structured interviews: interviews explored primarily how participants used ‘elimination’ as a strategy to counter practices of shame and shaming in learning to communicate orally in English.

**Results and Discussion:** Amongst other findings, a key finding of the study was that participants used elimination as a strategy, primarily to avoid mistakes and reduce stress in dealing with practices of shame and shaming, whilst learning to communicate in English. This finding will be discussed in detail with reference to the implications it has for teaching and learning oral communication skills in Chinese universities.

**Conclusion:** One of the important conclusions of this study is that for effective teaching and learning of oral English communication to take place, an investigation of strategies used by students will be key. It is important also to consider these strategies in designing teaching and learning materials, curricular, and teacher education programs.

**Key Words:** *Elimination as a strategy, Oral communication in English, Practices of shame and shaming*

## OP 40

### **A literature review on the practice of translanguaging and the impact it creates in the ESL / EFL classroom**

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**Introduction:** Translanguaging is a practice that contains all language practices of all students in a classroom to master a new language while sustaining the old ones. By applying the concept of translanguaging students are allowed to use many languages that they are familiar with, in order to improve their target language. It allows students to use their full language potential to achieve excellence of the target language in an ESL / EFL setting.

**Methods:** A literature review approach was followed and the research papers utilized for this review were extracted from various databases throughout a ten-year period i.e. from 2011 to 2021, to identify the impact of translanguaging in an ESL / EFL learning context.

**Results and Discussion:** Upon reviewing the literature on the concept of translanguaging, a pattern emerged whereby the authors in the journals, books and conference papers delineated that the technique of translanguaging was highly beneficial in several ways. If translanguaging is prohibited in the classroom and if we keep the learners from using other languages, it is similar to tying one hand of the student and expecting the student to do the things that they do with both their hands. All languages come into contact with, and are influenced by other languages. As such, language purity is only a construct of the mind and does not exist in real life. Translanguaging brings out the multi-proficiency of the language learner and creates a comfortable learning environment to the learner.

**Conclusion:** The norm of the contemporary society is not monolingualism but bilingualism and multilingualism. As educators, our ultimate goal should be to create bi-lingual and multi-lingual individuals. In the past decade, many studies proved that translanguaging is a powerful educational tool in the context of language learning and it creates a positive impact on the second language learner. Hence, it is reasonable to permit students to perform translanguaging practices in the ESL / EFL classroom. By doing this, students realize that all languages are important and give equal respect for all of the languages they use.

**Key Words:** *Translanguaging practices, Language purity*

## OP 41

### **Investigation of the Advanced Level students' perception of online learning during the Covid-19 pandemic in Sri Lanka**

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**Introduction:** With the prevailing Covid-19 pandemic, the advanced levels of education is almost entirely done through the online system, since traditional education cannot be continued. The aim of this study is to examine Advanced Level students' perception of online learning during the Covid-19 pandemic in Sri Lanka.

**Methods:** The quantitative study was conducted with 171 Advanced Level students who study different streams (Science and Math), a survey using close-ended, self-administered questionnaire was done to gather data. A random sampling method was used. The data obtained from the questionnaire were analyzed using descriptive statistics.

**Results and Discussion:** 62.2% of the subjects were females. A majority of 72.5% (n=124) were 18 years old. A majority of the subjects were in the 13<sup>th</sup> year (58.5%). A majority of the subjects follow the math stream (52.6%). 83.6% of the subjects have a personal laptop. A minority of subjects have never used a computer before (7.6%). 17% greatly agree that online classes offer flexibility in time management. 23.4% highly agree that online classes offer flexibility in the study location. 15.2% highly agree that only classes offer flexibility in designing my study timetable. 51.5% agree that online classes offer flexibility in organizing study material. 39.8% agree that online learning help them submit their assignment before deadlines. 56.7% agree that online classes allow them to work at their own pace. 38.6% agree that they are more engaged in online classes. 10.5% highly agree that they have more chances to contact the instructor via online classes. 12.3% highly agree that they are more willing to express their opinions online.

**Conclusion:** Advanced Level students' online classes seem to find virtual learning very convenient in terms of flexibility. However, the platform for students' online communication needs more improvements.

**Key Words:** *Advanced Level, Online system, Education*

**Subject-specific knowledge and instructional challenges: A case study on English for Specific Purposes teachers in Sichuan, China**

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**Introduction:** Instructional challenges arising from the lack of subject-specific knowledge by teachers of English for Specific Purposes (ESP) are a common phenomenon. However, investigations of these challenges from ESP teachers' points of view are rare. This study focuses on a group of ESP teachers who reflected on their 'preparedness to teach' to identify what instructional challenges can be associated with it.

**Methods:** The study involved a qualitative case study research design. A semi-structured interview was used as the instrument for data collection. Ten ESP teachers from a university in Sichuan, China were selected as the participants for this study. Data collected were thematically analyzed.

**Results and Discussion:** Teachers reflected mainly on the suitability of their teacher-preparatory studies; they pointed out the strengths, shortcomings of the preparation they experienced, and directions for informing future ESP teacher preparation. These findings are discussed in this paper with reference to ESP teacher education.

**Conclusion:** The paper particularly points to the need to alert ESP teachers and ESP teacher educators during their training to what instructional challenges teachers might encounter in practice; in order to respond to these instructional challenges effectively, engaging in continuous professional development activities will be key.

**Key Words:** *English for specific purposes, Subject teachers, Teacher preparation, Instructional challenges, Teacher knowledge*

**Contextually-responsive knowledge transfer of overseas PD by Thai academics: A case study**

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**Introduction:** English-speaking countries have become popular destinations for academics in non-English-speaking countries to attend Professional Development (PD) initiatives to upskill their professional knowledge and capabilities. However, systematic assessments of these PD activities in terms of their utility and contextual relevance in local contexts are rather scarce.

**Methods:** A case study was conducted with a group of five Thai academics who participated in PD activities abroad to examine the contextual relevance of the expertise they had acquired outside their local work context. All participants were full-time academics at a university in North-eastern Thailand. Their post-participation reflections on overseas PD experiences were recorded using semi-structured interviews; interview questions explored participants' original intentions to attend overseas PD activities, their personal assessments of the knowledge gained, and how they planned to utilize this knowledge in their local contexts of work.

**Results and Discussion:** The responses provided by participants were subsequently analyzed thematically. Findings indicated that an effective and contextually responsive translation of knowledge gained by participants was complicated by several practicalities in the local context. This paper discusses these findings and the implications of those for participants in PD activities overseas and their attempts to contextualize local pedagogical responses.

**Conclusion:** The negotiation regarding contextual relevance between participants and providers of PD and support for participants' implementation of gained knowledge in their local contexts are needed to be taken into consideration.

**Key Words:** *Overseas professional development activities, Contextual relevance, Contextually relevant transfer of knowledge*

## OP 44

### Teachers scrutinizing initial teacher education programs to identify professional needs: The case of Yogyakarta, Indonesia

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**Introduction:** In view of the rapid pace of education reforms and the need to improve the quality of teaching, teachers are obliged to engage in Continuous Professional Development (CPD) to improve their pedagogical knowledge and practices. CPD initiatives can only have a positive effect if teachers are able to articulate their actual needs. This paper presents a subset of findings from a larger study that investigates how teachers identify their professional needs. Particularly, the current paper focuses on how teachers use reflection as a strategy to scrutinize the Initial Teacher Education (ITE) programs they undertook to identify their present and future professional needs.

**Methods:** The study adopted a qualitative case study design wherein twelve secondary school teachers of English in Yogyakarta, Indonesia were participants. Data were collected using semi-structured interviews. These were subsequently analyzed thematically.

**Results and Discussion:** It was revealed that teachers' scrutiny of their ITE programs focussed heavily on their acquisition of 'content' and 'pedagogic content' knowledge. A deeper examination of participants' views indicated how participants used their reflections on past educational experiences as a basis for identifying their current professional needs for future improvement. These are discussed in relation to the implications they have for teacher professional development, and professionalism in Yogyakarta, Indonesia.

**Conclusion:** Further research regarding this topic is vital.

**Key Words:** *Teacher professional development, Teacher needs, Teacher professionalism*



**Economically deprived and eliminated: The bitter reality of inclusive education during the pandemic in Sri Lanka**

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**Introduction:** Together with the unexpected outbreak of the Covid-19 pandemic and the social regulations emerged therewith, the standard schooling system in Sri Lanka collapsed. As a response to the need to discover alternate means to continue child education and development, the Online Education System was introduced. The concept of Online Schooling was common in developed countries, but it was novel and alien to Sri Lanka. Along with the suitability of this fresh initiative, emerged the question, if this online education system helped all children equally and if it supported inclusive education. However, it appeared that the likelihood of economically disadvantaged children being eliminated from the new online education system was very high due to the unforeseen need for high-end educational infrastructure (smartphones, tablets, laptops, and an active internet connection) to continue education in this new platform.

**Methods:** This paper analyzes this problem while providing feasible recommendations to address this unfortunate situation by presenting an extensive analysis of primary sources; books, journal articles, conference proceedings, survey findings, and personal interviews focused on parents from lower-income families as the sample and online resources as secondary sources.

**Results and Discussion:** The attempts to sustain inclusive education, which is the child's right to participate in school education, irrespective of ability, gender, race, family income, and family status, appears to be noticeably prevalent in Sri Lanka since Kannangara Reforms introduced free education to all children from primary level to tertiary level in 1944 until today where the concept of inclusion seems disregarded.

**Conclusion:** Unfortunately, with the pandemic and its hazardous consequences, poverty, and economic vulnerability in relation to educational needs is given minimal attention and this study thereby reveals the bitter reality of inclusive education being utterly ignored, while leaving thousands of economically deprived, yet smart and capable children at homes, with no access to education, which must be soon resolved with subjecting this area into further review and research.

**Key Words:** *Children, Covid-19, Education, Online education, Poverty*

**Developing a screening tool to identify reading difficulties of children aged between 6-7 years: Pilot study**

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**Introduction:** Currently many children have referred to speech and language therapy (SLT) services for dyslexia because they are not learning to read, write, or not performing well in school. The statistics reveal around 200,000 to 400,000 school children could be identified as having dyslexia, but only around 13,000 have been diagnosed in Sri Lanka (MOH, 2015). Reading difficulties are early signs of probable dyslexia. This study is aimed to identify reading difficulties in children aged between 6-7 years and to check the practicability of administration of the screener.

**Methods:** A descriptive, cross-sectional study was elicited, which was carried out in three phases including the development of the tool; Beginner's Reading Screener – Sinhala (BRS-SI), first pilot session to note the practical and administering issues, and the pilot session with the whole sample. BRS-SI was administered with 60 primary education receivers from 12 schools in three districts in Western province, Sri Lanka, who had grade level adequate literacy skills with no physical, psychological, or sensory concern which would influence literacy skills, to check the practicability of the tool and administration. BRS-SI included four components to be assessed which were based on the Early Reading Screening Instrument (ERSI); a screening tool developed in the late 1990s. Safety, feasibility, acceptability, and sustainability of the screening tool were considered when checking the practicability of the screening administration (face and content validity).

**Results and Discussion:** All the participants were able to score at an excellent level in three components; the concept of word, phonemic awareness, and word recognition. 95% of the participants scored at an excellent level while the remaining 5% scored at a fairly completed level in the Alphabet knowledge component. Safety, feasibility, acceptability, and sustainability (practicability criteria) were validated and it ensured the appropriateness of the screener in obtaining intended outcomes of the participants. The screening tool was validated by speech and language therapists and primary education teachers, which was subjectively viewed as covering the concept it purported to measure.

**Conclusion:** The screener was found to be appropriate to administer with the subjects of respective ages to identify the presence of reading difficulties. It was confirmed as safe, feasible, acceptable, and sustainable in screening reading difficulties at the early stages. Transparency and equity also were observed to be practiced in the screener.

**Key Words:** *BRS-SI, Dyslexia, Early identification, Reading difficulties, ERSI*

**English language teacher educators' views on face-saving practices of pre-service teachers: A case study**

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**Introduction:** Face-saving behavior in language classrooms, such as the unwillingness of students to speak in class, is an important issue for both learners and teachers of English. In China, despite many years of study, English language learners struggle to communicate orally in English. Considering the amount of resources spent on improving the English language proficiency of students, the learning outcomes are very poor. This study aims to explore how a group of Chinese English language teacher educators accommodate the face-saving behaviors of pre-service teachers to effectively accommodate these behaviors in instruction.

**Methods:** The study involved a qualitative case study research design. Ten qualified English language teacher educators participated in the study. Their views and observations of face-saving behaviors displayed by their trainees were captured using semi-structured interviews. Thematic analysis is applied to analyze the data.

**Results and Discussion:** Findings indicated that most participants were aware of their students' 'face-saving' behavior. Although the participants agreed that face-saving behavior will hinder students' progress, this seemed to be an aspect they tended to ignore. These findings will be discussed with special reference to English language teacher education and curriculum development in China.

**Conclusion:** For implementing effective language teacher education programs, identification of face-saving behaviors displayed by pre-service teachers is seen as extremely important. Additionally, equipping teacher educators with the means to accommodate these behaviors will complement this process.

**Key Words:** *Face-saving behavior, English language teacher educators, English teacher education*

**Perspectives of lecture delivery and assessment through E-learning among students pursuing tertiary education in private institutes and universities in the Gampaha district, Sri Lanka**

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**Introduction:** As institutions worldwide are consistently seeking new approaches to utilize innovation to improve instruction and learning adequacy, E-learning has arisen as an option in contrast to conventional homeroom-based schooling. Preparing and web talks can be an incredible expansion to customary talks. This study aimed to understand the perspectives of lecture delivery and assessment through e-learning among students of private higher institutions in the Gampaha district.

**Methods:** A qualitative study was carried out among students currently studying in institutes that deliver paramedical programs. Semi-structured interviews with open-ended questions were implemented over Zoom. Audio recordings were taken upon participants' consent, and collected data were thematically analyzed.

**Results and Discussion:** The leading platforms and tools for lecture delivery and assessments were Zoom, Moodle, and the learner management system (LMS). The students stated that the college provided them with a data package, catchup class, access to the presentation, video, and recorded sessions of the class on Moodle and allowed extensions for delayed payment for courses allowing them to participate in the exams as the majority of the participants faced financial issues. The college had used daily activities, assignments, and exams for each module to assess the progress level of students. These assessments deadline was communicated to students via Gmail, outlook, LMS, and WhatsApp Student reported that the lecturers faced technical issues and poor internet connection due to a lack of signal. There were divisions between students when it came to the quality of the lecture as some were satisfied. However, others had expressed that they had difficulty understanding the content of the lectures and difficulty clarifying doubts. Moreover, students reported that due to the pandemic and e-learning, the students are not able to practice hand on skills that require supervision, and there will be delays in graduating from the course.

**Conclusion:** Although E-learning is effective when it comes to lecturing delivery and assessments during the pandemic, certain aspects of learning cannot replace traditional learning

**Key Words:** *Assessments, E-Learning, Lecture, Perception, Tertiary*

# **NURSING**

## PLENARY – OP 49

### **Educating nurses and midwives for the future**

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Welcome to the nursing symposium of the 20th BioInquirer Annual Academic Sessions 2021: Research Forum “Together, towards Sustainability”, a virtual event exploring The United Nations’ 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals.

In this presentation we will consider the World Health Organisation’s Global Strategic Directions for Nursing and Midwifery 2021-2025, which presents evidence-based practices and policy priorities that can help to ensure that midwives and nurses contribute to achieving universal health coverage (UHC) and other population health goals. We will examine the policy focus areas of education, and consider how to educate enough midwives and nurses with competencies to meet population health needs.

In this International Year of Health and Care Workers, the International Council of Nursing Report from the 74<sup>th</sup> World Health Assembly outlined the nursing policy considerations on the implementation of the 2030 agenda for sustainable development. So what can we do to assist in achieving the education strategic direction for nursing and midwifery? How can we ensure that midwife and nurse graduates match or surpass health system demand and have the requisite knowledge, competencies and attitudes to meet national health priorities?

Is it an investment in nursing education, jobs and leadership? How can we strengthen the nursing workforce to deliver the SDGs, particularly those related to health, gender, decent work and inclusive economic growth?

## OP 50

### **Nursing students' experience on bullying and/or harassment during clinical placements**

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**Introduction:** Bullying in nursing is an international phenomenon. The complexity of the healthcare setting, coupled with the disciplinary history of nursing as a profession, creates an environment in which incivility can flourish. Nursing students are particularly vulnerable while on placement in clinical facilities. Often they are isolated from support services of the education environment and have yet to develop skills necessary in negotiating negative interactions with others. Research in the international context suggests that bullying and harassment of nursing students can harm them physically, mentally and emotionally, while also negatively impacting patient care. This study aims to identify the incidence and nature of bullying and/or harassment experienced by nursing students in Sri Lanka. It is hoped that the information gained can be used to improve the clinical placement of students in the future.

**Methods:** An online survey was used to collect data from students regarding their experiences of bullying and/or harassment during placements over the preceding 12 months. The tool consisted of 8 demographic questions and 15 items specific to the experience of bullying and harassment, including the option of providing free-text comments.

**Results and Discussion:** A total of 645 nursing students participated in this study. The majority were females with a mean age of 24.4 years. A total of 149 (27.4%) of respondents reported that they had experienced bullying and/or harassment while on placement, with a further 16.7% indicating they were unsure. Most of the instances of bullying and/or harassment (55%, n=82) occurred in hospitals with 29% (n=43) being experienced in the community setting. Registered nurses, including nurse managers and clinical facilitators, were the more common perpetrators of bullying. Verbal abuse was cited as the more frequent type of bullying behavior. The findings of this study support evidence in the literature that indicates there is a culture of bullying in nursing that persists internationally.

**Conclusion:** The incidence of bullying and harassment of nursing students in Sri Lanka is concerning. Experiencing bullying in the workplace can negatively impact student learning and potentially patient care. The nursing profession needs to work to change a workplace culture that permits bullying and harassment to exist. Educational programs need to prepare students to appropriately manage bullying and harassment while on placement. Further research is needed to evaluate strategies to improve clinical placement experiences for nursing students.

**Key Words:** *Bullying, Harassment, Nursing, Placement*

## OP 51

### **An exploration into perception towards euthanasia among palliative care nurses of Sri Lanka**

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**Introduction:** Palliative care has been described as an essential aspect of nurses which focuses to alleviate pain including psychological and spiritual aspects of patient care. Euthanasia will be usually regarded as a positive nursing activity when it is carried out following the patient's autonomy. It is critical to fully reflect the views of palliative care nurses when developing clear assumptions on legalizing euthanasia in Sri Lanka. This study aimed to explore perception towards euthanasia among nurses who are currently involved in palliative care in Sri Lanka.

**Methods:** This research was a phenomenological study conducted among palliative care nurses who had gained a public health diploma and training in palliative care. A purposive sampling method was followed. Data collection was obtained till the point of saturation, in which a total of 8 participants were interviewed through a virtual platform, guided by a question guide. Gathered data was transcribed, coded and analyzed thematically.

**Results and Discussion:** Four themes were identified. The first theme was “understanding and personal opinion” where the nurses mentioned that ‘letting patients decide on having euthanasia is ethical’, ‘administering euthanasia would not affect image of the profession if it gets legalized’, and ‘it satisfies requirements of patients in psychological aspects’. The nurses were concerned on both positive and negative effects of euthanasia based on their religious background. “Patients’ awareness on euthanasia” was the second theme. Nurses believed that ‘the patients were not aware as no one had ever requested of this option to eliminate pain’. They thought ‘awareness on euthanasia among patients and their families will affect in a better way to adopt for possible changes in the future’. “Quality of life and palliative care standards”, was the third theme. The nurses noted that ‘with adequate explanation on quality of life, the majority are likely to involve in palliative care’ and suggested on ‘expanding palliative care training in Sri Lanka’. “Legalizing euthanasia in Sri Lanka” was the fourth theme. The points identified under this were; ‘legalizing euthanasia under several conditions is a good recommendation for patients to end their suffering’, and nurses accepted euthanasia as ‘an option for them to gain a peaceful death’.

**Conclusion:** Legalizing euthanasia in Sri Lanka could generate multiple ethical concerns. However, nurses can uphold quality of life through improved palliative care. Euthanasia could be the last resort of eliminating pain. However, it has to be legalized only under several conditions with a good legal framework.

**Key Words:** *Euthanasia, Legalizing, Palliative care, Perception, Quality of life*



**Knowledge, attitude and practice of nursing students on the use of PPEs in clinical settings during the COVID-19 pandemic in the school of nursing, Kaluthara**

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**Introduction:** Personal protective equipment (PPE) are vital for the prevention and control of infections and work-related hazards. Clinical practice is an essential component in nursing, which is a practice-based profession. Nursing students are supposed to continue with their clinical practice even through the COVID-19 pandemic. Good knowledge and a positive attitude regarding the use of PPEs would lead to better infection control and prevention. This study aims to explore the student nurses' knowledge, attitude, and practice regarding PPEs during their clinical practice during the COVID-19 period.

**Methods:** A literature review was carried out to develop the conceptual framework and the tool of this descriptive, cross-sectional survey research. The study sample consisted of 133, third-year nursing students in the school of nursing, Kaluthara. Ethical approval was obtained from the Ethical Review Committee of Faculty of Allied Health Science, University of Peradeniya. Data were collected from September to October 2021 using a self-developed, self-administered questionnaire.

**Results and Discussion:** The findings showed that the majority (76.7%, n=102) of the students were in the 22 to 25 years age range. Out of the 133 participants, 38.3% (n=51) of participants practiced at more than one ward. Results showed that clinical practice was taken from medical wards, surgical wards, obstetric wards, gynecological wards, intensive care units, ENT ward, and theater (58.6%, 59.4%, 33.1%, 29.3%, 22.3%, and 27.8%) respectively during the COVID-19 pandemic. It was found that 64.7% had above-average levels of knowledge ( $\bar{x}=8.14 \pm 0.84$ ), positive attitude ( $\bar{x}=20.00 \pm 2.47$ ), and a moderate level of practice ( $\bar{x}=12.6 \pm 2.5$ ). Results revealed that there were some barriers which had an influence on practice ( $\bar{x} = 14.1 \pm 2.3$ ).

**Conclusions:** The majority of the nursing students had good knowledge, positive attitudes, and good practices related to the use of PPEs. Knowledge, attitudes, and barriers had an influence on practice. This study also highlights the factors influencing knowledge, attitudes, barriers, and practice towards PPEs that must be addressed in future education by administrators and policymakers in order to prevent and control infections and hazards.

**Key Words:** *Knowledge, Attitude, Practice, Personal protective equipment, Nursing students*

**Prevalence of mental health related issues among nursing staff in a COVID-19 dedicated hospital in Sri Lanka**

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**Introduction:** During global pandemics, the Sri Lankan Government has taken immediate action to control the spread of infection. However, the front-line workers such as nurses are experiencing higher stress levels during the pandemic due to various reasons. The main objective of this study was to assess the prevalence of stress, anxiety, and depression among nurses working in a hospital in Sri Lanka, dedicated to treating COVID-19 patients.

**Methods:** A cross-sectional study was carried out among 131 nurses working at Colombo East Base Hospital, Mulleriyawa. The data was collected using DASS-21 and analyzed using Statistical Package for Social Sciences (SPSS) version 22.

**Results and Discussion:** There were 131 respondents out of 156 who worked in general (56.5%), critical (42.2%), and administrative (2.3%) departments. The majority were females (85.6%). There were 21.4% found to be depressed, 29.8% with anxiety, and 19.8% are depressed at various levels. The mean age of nurses with anxiety (33.4 years) was found to be significantly lower than those who were without anxiety (36.4 years) ( $p=0.046$ ). There was an association between working unit and anxiety ( $p=0.03$ ) and depression ( $p<0.001$ ). There were no associations between sex, marital status, having children, experience, or qualifications and medical or psychiatric issues ( $p>0.05$ ). While extended working hours, issues of availability and depletion of personnel protection equipment increased risk of virus contagion, fear of transmission to their families, concerns about the health of self and loved ones, staying away from the families were common factors both in the developed and underdeveloped countries' healthcare systems. However, in underdeveloped countries like Sri Lanka, social and cultural issues like "feeling stigmatized and rejected" if contracts virus cause more anxiety/mental stress at work, especially among female healthcare workers. Considering the above factors, one would expect more prevalence than we have seen in this study; therefore, we can infer that if mental health is not prioritized in healthcare institutions, then definitely lack of awareness/openness and under-reporting by staff will result in a long-term systemic problem.

**Conclusion:** Healthcare providers should devise the tools to assess their staff's mental health well-being and measures with anxiety-relieving sessions and psychological support programs for staff benefit.

**Key Words:** *Covid-19, Stress, Anxiety, Depression*

## OP 54

### **Knowledge, attitude and practice of postoperative pain management among nurses at District General Hospital - Kalutara**

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**Introduction:** Pain management is an essential part of postoperative management. Untreated postoperative pain may lead to poor recovery, prolonged hospitalization, and dissatisfaction with the patient. The purpose of the study was to examine knowledge, attitude, and practices of postoperative pain management among nurses at district general hospital Kalutara (DGHK), Sri Lanka.

**Methods:** A descriptive cross-sectional study was conducted using a self-administered questionnaire among randomly selected 180 nurses in DGHK. Data were analyzed by using descriptive statistics in SPSS version 26.

**Results and Discussion:** The responsive rate was 90% (n=153). Out of the total participants, 56.3% (n=96) had an average level of knowledge, and significantly female nurses (p=0.003), who were between 46-55 years (p=0.000) and working experience >20 years (p=0.000) had a good knowledge level on postoperative pain management. Among the participants, 74.7% (n=127) were shown average attitude level and good practice level. Only 6.8% (n=11) of participants have used music therapy as a non-pharmacological method to reduce pain. Participants with work experience of 6-10 years, had a significantly association with a good attitude (p=0.000) and better practice (p=0.009) levels. Educational level was significantly associated with the attitude level (p=0.002).

**Conclusion:** The majority of participants had an average level of knowledge and attitude and a good level of practice on postoperative pain management. Ward and hospital administration needs to pay attention to arranging a facilitated ward environment for practicing non-pharmacological methods of pain management.

**Key Words:** *Attitude, Knowledge, Nurses, Postoperative pain, Practice*

**Prevalence of complications among kidney patients undergoing dialysis in Anuradhapura teaching hospital, Sri Lanka**

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**Introduction:** For the past 20 years, Chronic Kidney Disease has been a major cause of illness in Sri Lanka. Patients with acute or irreversible renal failure, fluid and electrolyte imbalances and end-stage renal disease (ESRD) are treated with hemodialysis. This study aimed to determine the prevalence of complications among kidney patients who are undergoing dialysis in Anuradhapura teaching hospital, Sri Lanka.

**Methods:** Hospital-based descriptive cross-sectional study was conducted to determine the prevalence of complications among 50 kidney patients who were diagnosed with ESRD are undergoing dialysis in Anuradhapura teaching hospital via convenience sampling method. The data was collected using a paper-based questionnaire given to the patients. Data was compiled and statistical analysis was done using Microsoft excel.

**Results and Discussion:** Most common complication among dialysis patients was edema which was 45% (n=22) of the population. Eighteen patients, (37.5%) of the population, had itchy skin as the second most common complication encountered by dialysis procedures. The study has shown that 48.7% (n=24) of the population has hypertension as the most common long-term complication followed by (33.3%, n=17) unstable blood pressure and (12.8%, n=6) mineral bone disorder. The majority (74%, n=37) of the population has felt emotionally drained some of the time, as a result of undergoing dialysis procedures. Most of the participants, which was 52% (n=26), have felt depression and anxiety, and 48% (n=24) of the population have felt like a burden to their families as a result of undergoing dialysis.

**Conclusion:** Hemodialysis is associated with a wide range of problems. Nevertheless, careful monitoring, thorough patient assessment, and effective clinical judgment can aid in early discovery and management, allowing life-saving therapies to continue. Encouraging patients to express their feelings and educating patients to work on their mental health will help to uplift the emotional stability of the patients who are undergoing dialysis.

**Key Words:** *Awareness, Complications, Dialysis, Kidney patients, Prevalence*

## OP 56

### Nurse's level of knowledge and practices on prevention of surgical site infections

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**Introduction:** After surgery on the part of the body where the surgery took place, an internal surgical site infection may develop. It may also get into the skin, organs, or tissues under the accumulated material due to contamination. For the protection of patients, all health-care practitioners are critical. However, they are all concerned with patient care, and nurses play the most important role, so delivering high-quality medical care is a major challenge for nurses. The main objective of this study is to find out how knowledgeable and experienced nurses are about surgical site infections and prevention.

**Methods:** The study was designed as a descriptive cross-sectional study. Data collection was done via a self-administered questionnaire to 105 nurses in a private hospital in Colombo. In assessing the knowledge of nurses' done by using a rating scale by giving marks and data analyzed done by using excel.

**Results and Discussion:** Most of the participants were 25 to 35 years old (61.9%) while 45 of them were working in the operation theater (47%). From the study, results showed that 51.31% of them had knowledge of surgical site infection prevention. Importantly, the study signified that only 31% nurses were well trained in surgical site infection prevention activities. Only 33.3% of respondents gave answers correctly about disinfection of surgical sites prior to surgery by nurses. This marks a huge gap in their knowledge and experiences as overall responses showed that they had no knowledge about surgical site infection.

**Conclusion:** The study revealed that nurses reported less knowledge and training on surgical site infection prevention. This implies that nurses working in surgical theater have less knowledge on surgical site infection. Therefore, hospital administrators need to increase knowledge of surgical site infection prevention to improve the quality of nursing care. Education and training programs should be conducted. An education and training program should be conducted to improve the knowledge and training of nurses in certain areas using evidence-based training.

**Key Words:** *Surgical site infections, Nurses, Disease, Prevention*

## OP 57

### **Knowledge, attitude, and experience of staff nurses on palliative care in provincial general hospital - Badulla**

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**Introduction:** Palliative care focuses on treating the whole patient with the goal of improving quality of life by addressing everything from symptoms to emotions to family members' concerns. The present study aims to assess the knowledge, attitudes, and experiences of staff nurses towards palliative care in provincial general hospital (PGH) - Badulla.

**Methods:** A descriptive, cross-sectional survey design was used to collect data from March 2021 to May 2021 via a self-administered, close-ended questionnaire. The questionnaire was circulated among a conveniently-selected 100 nurses in PGH - Badulla, where nursing sisters, masters, matrons, and nurse managers were excluded. Data analysis was done descriptively via Microsoft Excel.

**Results and Discussion:** Majority were female (85%), 31-40 years of age (51%) nurses with 1-10 years of nursing experience (46%), with a diploma (99%). Only 41% have worked in a palliative care setting and 26% have participated in ongoing professional training in palliative care in the form of workshops or seminars. Many of the nurses were capable of identifying that a patient is dying (59%), where 51% agreed they cannot cease routine care for the dying patient without permission from a doctor. Nearly three fourth of the nurses would give dying patients honest answers about their condition (73%). Nearly half of them agreed that end-stage palliative care would be helpful for the patient (46%) and that a resuscitation order should be placed on chart when identified as dying (51%). Over half would like to care for a dying patient (51%) and agreed they can control symptoms in the dying phase (56%). Nearly half of the respondents disagreed that palliative care should only be provided for patients who have no curative treatment available (49%), whereas 66% agreed opioids influence survival time and that it is not crucial for family members to remain at the bedside until death occurs. 61.5% agreed that palliative care requires emotional detachment. Majority of the nurses believed that palliative care needs decisions from a specialized palliative care team (74%), and that patients should be allowed to make their decisions about care (61%). Frequent positioning is not always desirable when a patient is dying and non-essentials should be discontinued (66%). All of the respondents believed that opioids are appropriate to control pain. Majority believed that a fluid balance record for a dying patient is important (95%). Majority believed that treatments should continue even if a patient is dying (95%).

**Conclusion:** Nurses' attitudes with their own beliefs and ethical sensitivity and attitudes about nursing care are in a good status. Attitudes towards psychological aspects are also in a better status. However, they seem to require more knowledge about palliative care.

**Key Words:** *Knowledge, Practice, Palliative care, Psychological aspects, Nursing care*

## OP 58

### Perceptions of nurses on continuous professional development (CPD)

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**Introduction:** Nursing education is designed to prepare competent nurses to meet the current and future healthcare needs. In many countries, nurses are required to renew their registration every two or three years. In Sri Lanka, there is no such rule in place. However, different universities and the Ministry of Health have introduced CPD programs for nurses such as post-basic diplomas, undergraduate degree programmes, and masters' programmes. The main aim of this study was to assess perceptions of nurses in provincial general hospital - Badulla on CPD.

**Methods:** A descriptive, cross-sectional study was conducted. The study sample was selected by using a simple random sampling method. A sample of 200 nurses participated in this study and a self-administered questionnaire was used for data collection. The collected data was analyzed by a descriptive analysis method using Microsoft Excel software package.

**Results and Discussion:** According to the study, the majority of the nurses were females (85%). The age of nurses ranged from 25 to 46 years. The majority of the participants (57%) had nursing experience with a range from 11 to 15 years. The highest professional qualification for the majority of nurses (84%) was a nursing diploma and only a low percentage (12%) had a nursing degree. Importantly, the results signified that all of them need CPD to work effectively with other nurses. Among them, 92% (n=184) accepted that heavy workload was a barrier for engaging in CPD.

**Conclusion:** The findings of this study revealed that registered nurses recognize the benefits of CPD, not only for themselves but also for the patients, as they need knowledge of specialty to treat patients. In this study, the main barriers for CPD are excessive responsibilities, low income, issues in getting study leave, lack of coherent staff development plans and opportunities for promotion, and lack of a supportive work environment. Nurses need to be motivated in a supportive environment. Combining specific job-related skills training with an individualized CPD program, and moving them into new roles in the organization are recommended.

**Key Words:** *Continuing professional development, Nurses, Staff shortage, Heavy workload, Responsibilities*

## OP 59

### Knowledge and attitude regarding HIV/AIDS among nurses in Sri Lanka

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**Introduction:** The human immunodeficiency virus (HIV) is a retrovirus that infects cells of the immune system, destroying or impairing their function. The most advanced stage of HIV infection is acquired immune deficiency syndrome (AIDS). In recent years HIV/AIDS has come to be regarded as a major health problem because of its high rates of morbidity and mortality and its high treatment costs throughout the world. This study aims to assess the knowledge and attitudes towards HIV/AIDS among nurses.

**Methods:** A descriptive, cross-sectional study was conducted among 60 staff nurses from Sri Jayewardenepura general hospital and 60 nursing students doing their higher education in a private healthcare institute through convenience sampling technique. Data were collected using a pre-tested, self-administered questionnaire. The data obtained were analyzed using SPSS version 23 and Microsoft Excel.

**Results and Discussion:** The majority of the participants were females (90%), age group 25-34 years (68.3%). The majority of the participants had good knowledge regarding HIV/AIDS (68.3%), and the total knowledge among staff nurses was good (40%) when compared with the nursing students (29%). Most of the participants have positive attitudes (65%) towards HIV/AIDS and while compared among staff nurses (56.2%) and nursing students (43.8%), staff nurses have a higher percentage of positive attitudes towards HIV/AIDS. Age and knowledge among staff nurses and nursing students ( $p=0.001$ ) and attitudes among staff nurses and nursing students ( $p=0.01$ ) were significantly associated.

**Conclusion:** General knowledge regarding HIV/AIDS among the participants was good. The knowledge on HIV/AIDS among nurses was good compared to nursing students. A higher percentage of the population in this study had positive attitudes toward HIV/AIDS and their perception of social stigma was low. Better knowledge and a more positive attitude should be instilled among the nurses.

**Key Words:** *HIV/AIDS, Nurses, Nursing students, Knowledge, Attitude*



## OP 60

### Study on identifying the factors causing delayed presentation of cervical cancer

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**Introduction:** Cervical cancer is known as the second most common malignancy among women worldwide. In Sri Lanka, cervical cancer accounts for 10% of female cancers and around 70% of those cases are diagnosed only in late stages. The main aim of this research is to identify and explore different factors influencing the late-stage presentation of cervical cancer and identify the socio-cultural factors related to the late presentation of cervical cancer at the National Cancer Institute (NCI), Maharagama Sri Lanka.

**Methods:** A descriptive, cross-sectional study design was used. An interviewer-administered questionnaire was conducted among a conveniently-selected 190 cervical cancer patients attending the clinics and admitted to female wards of the NCI, Maharagama. Data analysis was done via SPSS 23.0 and Excel 2016 packages.

**Results and Discussion:** Majority of the respondents (53.6%, n=102) were 50-60 years of age, 52 (27.4%) had a monthly income of less than Rs. 10,000, 60 respondents (31.6%) had studied up to Ordinary Level only, and 133 (70%) participants were housewives. Over two thirds of the respondents noted that they were exposed to intercourses when they were 15-20 years old (68.4%, n=130). Majority (71.6%, n=138) lacked knowledge regarding cervical cancer, 128 (67.3%) did not know that Pap smear test is done for free at government hospitals. Most of the respondents lacked much concern regarding the early symptoms of cervical cancer (90.5%, n=172) and agreed that they do not have enough knowledge regarding cervical cancer and preventive methods (82.1%, n=156). All participants agreed that preventive measures should be promoted by the media. Majority believed it was not necessary to attend the clinic if they don't have any condition (45.8%, n=87) and 72 respondents (37.89%) thought bleeding per vagina was a normal condition. Some were shy to expose their vagina for examination to a doctor (21.2%). The delayed diagnosis of cervical cancer could be due to lack of effective communication of community healthcare workers as most of the participants were not aware of 'Well Women Clinics' in the area or cancer screening and methods, which facilitate prevention and early detection. Fear/dislike or shyness, lack of transport to healthcare centers, lack of family support, getting other treatment such as Ayurveda treatment, and lack of time to attend a clinic with a busy schedule were identified as major barriers for early diagnosis.

**Conclusion:** Delayed diagnosis was identified as a major issue in cervical cancer prevention, treatment, and control. Knowledge about cervical cancer was poor as the majority of the participants had not heard about the disease.

**Key Words:** *Knowledge, Cervical cancer, Early detection, Safety, Prevention*

# **HEALTH ADMINISTRATION**

## PLENARY – OP 61

### Learning from COVID-19 for a resilient health system

**Dr. Sarath Samarage**

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Health systems resilience is key to learning lessons from country responses to crises such as COVID-19. In this perspective, this presentation reviews COVID-19 responses using a new health systems resilience framework.

During a crisis, a resilient health system is able to effectively adapt in response to dynamic situations and reduce vulnerability across and beyond the system.

We need to look at the domains addressing governance and financing, health workforce, medical products and technologies, public health functions, health service delivery and community engagement to prevent and mitigate the spread of COVID-19.

Assessing health systems resilience is vital in helping policy makers plan for sustainable recovery and strengthen systems to better prepare and respond to current and future crises.

Our experiences of the COVID-19 pandemic show that we need to be vigilant to external threats at all times, with the right skills and capabilities in place, and that we must go further to prevent the underlying health conditions that have a bearing on how vulnerable we are to those threats.

Experts have identified six practices that represent a best-in-class response to the pandemic and that can be applied by any national health system as part of its pandemic-control strategy.

Recently, the WHO has released a position paper at a crucial time to provide leaders and policy makers with recommendations on positioning health within the wider discussions on socioeconomic recovery and transformation.

Out of crisis comes learning and innovation — both to face our immediate challenge and to build more sustainable health systems for a healthier and safer world in the decades to come.

## OP 62

### Perceived stress and associated factors among physicians during Covid-19 pandemic in Sri Lanka

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**Introduction:** The Covid-19 pandemic has led to devastating consequences in all parts of the globe and Sri Lanka is no exception. A healthcare crisis of this nature is bound to cause stress and impact the well-being of healthcare workers, especially in low-resource settings such as Sri Lanka. This study aimed to assess the perceived stress and its associated factors during the Covid-19 pandemic among physicians in Sri Lanka.

**Methods:** A cross-sectional study was carried out among physicians attached to the government curative sector of Sri Lanka during September 2021. A specifically designed, self-administered online questionnaire was used to assess demographic, socio-economic, and occupational details and perceived needs and challenges encountered. The perceived stress scale (PSS-10) was used to assess the degree of perceived stress score.

**Results and Discussion:** Among the 96 respondents, more than two-thirds of participants had moderate (62.5%, n=60) or high (20.8%, n=20) perceived stress. Females, physicians working in Base Hospitals, Divisional Hospitals, intern and resident house officers had higher levels of stress ( $p<0.05$ ). Level of education, experience (<4 years), working outside the Western province, working in designated Covid-19 units, and being subjected to the stigma surrounding Covid-19 had no statistically significant relationship with high stress ( $p>0.05$ ). The majority (90.6%, n=87) were of the opinion that present control and prevention practices in the community are adequate. Fear of being a carrier (79.1%, n=76), maintaining distance from loved ones for their benefit (62.5%, n=60), and increased work demands (41.6%, n=40) emerged as the most important challenges encountered whereas fulfillment of cadre requirement of the institution (79.1%, n=76), flexible working hours (61.4%, n=59) and additional risk allowance (59.3%, n=57) emerged as the most perceived needs by physicians.

**Conclusion:** The prevalence of stress among physicians is high. Early screening and intervention of stress among physicians as well as provision of appropriate psychological support are required. The perceived needs and challenges are identified. Further studies are warranted. Concerns need to be addressed as necessary to alleviate the attributed stress, which, in turn, lead to improved quality, safety, and efficiency of patient care.

**Key Words:** *Stress, Covid-19, Physicians, Healthcare professionals, Sri Lanka*

## OP 63

### **A study to determine the leading organizational factors of physician burnout among non-specialist doctors in Sri Lanka**

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**Introduction:** Physician burnout is a significant problem in healthcare management as it jeopardizes physician satisfaction, workforce retention, patient safety, and the quality of care provided. While many studies have been published globally, there are not many studies carried out in Sri Lanka to determine burnout and the factors causing it.

**Methods:** This study carried out is basic, exploratory, descriptive, and cross-sectional and is designed to detect burnout and determine organizational factors leading to it. The study used convenience sampling and gathered responses from 73 respondents. The instrument used to collect responses was a questionnaire created based on the 'Maslach Burnout Inventory – Human survey for Medical personnel' (MBI-HSS (MP)) and theory of Maslach burnout development based on six areas of work life. The study sample was small to make a wider conclusion. The study was carried out during a pandemic period and may have influenced the responses to a certain extent.

**Results and Discussion:** The data suggests a significant burnout among doctors in all three domains: emotional exhaustion (74.67%), depersonalization (54.04%), and personal accomplishments (62.33%) with male doctors being affected more than female doctors. Also, it showed the presence of mismatches in all 6 areas of work-life: workload, control, reward, community, fairness, values with the below positive average score in the Likert scale. The highest prevalence of mismatches was noted in workload. Weak to strong correlations were noted between domains of burnout and work area mismatches. The strongest correlations were observed between reward and values and personal accomplishments. Increasing mismatches in rewards and values seem to strongly increase the prevalence of personal accomplishments of burnout.

**Conclusion:** Physician burnout is widespread in Sri Lanka. Organizations must investigate this phenomenon and implement preventive measures. The recognized organizational factors through this research must be managed to improve patient safety, physician safety, and quality of care provided by the organizations.

**Key Words:** *Doctors, Healthcare management, Physician burnout, Organizational factors*

## OP 64

### **Improving environmental, economic and social performances by applying the green human resource management practices at health sector**

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**Introduction:** Green human resource management (GHRM) is increasingly considered as a critical branch of human resource management and it is interesting and highly instrumental in creating and enhancing the natural environment sustainability. Research project was carried out at base hospital Tangalle, with the intention of improving the green inputs and employee green performance by adopting Green Human Resource Management practices.

**Methods:** The project was carried out in three phases by adopting the mixed method approach. Qualitative techniques which included focus group discussions and key informant interviews were primarily applied for planning interventions. Quantitative techniques that included customer surveys and checklist were mainly employed for assessing the effectiveness of implementation.

**Results and Discussion:** In the pre-interventional phase, it was revealed that there was a lack of systemic mechanism that linked employee performances and organisational performance with environmental-related human resource management practice. During the interventional phase, considering the above gaps, interventions were designed and implemented. The main intervention was applying Milliman and Clair's GHRM model (1996). Following implementation, it was revealed that green attitude of the employee improved from 2.03 to 3.83, green competency improved from 1.1 to 3.29 and green behaviour improved from 1.24 to 3.37 at  $p < 0.005$  level. Following green human resource management training it was revealed that levels of green conservation activities (reducing, recycling, reusing and repurposing) significantly improved at  $p < 0.005$ . Further, components of green inputs significantly improved at  $p < 0.005$ .

**Conclusion:** It was revealed that GHRM practices are a more powerful tool in improving green inputs, employee green performance, and environmental organisational performance. Hence it is recommended to create, maintain, improve and expand GHRM practices at healthcare institutions by adopting the experience gained throughout the interventions.

**Key Words:** *Green human resource management, Environmental performance, Economic performance, Social performance*

## OP 65

### **A study to determine barriers of career progression and professional development in non-specialist doctors in Sri Lanka**

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**Introduction:** Many factors can negatively impact the career progression and professional development of doctors in Sri Lanka. However, this study focuses on determining the barriers that are affecting the career progression and professional development of non-specialist doctors in Sri Lanka.

**Methods:** The design is exploratory, basic, descriptive, and cross-sectional. A self-prepared questionnaire with 4 factors was used to collect data. 99 respondents participated in this study. The gathered data were analyzed using MS Excel software.

**Results and Discussion:** The barriers were analyzed mainly using three factors: Personal factors, Professional factors and Availability of resources each with 5 subsets. Most subsets (13 out of 15 subsets) were identified as barriers by non-specialist doctors. Overall, respondents who have identified these factors as barriers were predominantly male population (36-45 years' age and 6-10 years' work experience). The major barrier factor identified is the personal factor with professional factors and availability of resources being identified as barriers in 4 of 5 subsets. The fourth factor of the questionnaire, opinions and attitudes, showed that 4 out of 5 subsets were agreed by the most respondents with respondents being predominantly male.

**Conclusion:** This study identified various barriers to career progression and development among non-specialist doctors in Sri Lanka. The regulatory bodies and training providers should implement ways to identify these barriers and address them.

**Key Words:** *Barriers, Career progression, Non-specialist doctors, Professional development*





**Assessing the knowledge and practices on novel COVID-19 among antenatal mothers in antenatal clinics in MOH area, Pitakotte**

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**Introduction:** COVID-19 is a highly infectious respiratory disease, and the emergence of a second wave of the COVID-19 pandemic was inevitable. Pregnancy is a state of partial immune suppression that makes pregnant women more vulnerable to viral infections, and the morbidity is higher even with seasonal influenza. Therefore, the COVID-19 epidemic may have serious consequences for pregnant women. The study was conducted to assess the knowledge and practices of novel COVID-19 among antenatal mothers in antenatal clinics in the MOH area of Pitakotte.

**Methods:** The study adopted a descriptive cross-sectional design and the sample size was 100 pregnant women attending the clinic. A simple random sampling technique was used. The instrument for data collection was a self-administered questionnaire. Data analysis was done using SPSS version 23.

**Results and Discussion:** According to the data, the average age of the mothers is 30 years old. Among them, 39% of mothers are in their second pregnancy, while 30% are in their first pregnancy, and the majority of mothers are in their second trimester (42%). All of them responded that COVID-19 is a viral infection and 94% of them responded that the lungs are affected and DM history during pregnancy will be a risk factor (93%). They have good knowledge of signs and a symptom, as 86% responded that fever with a sore throat was the main clinical feature. And 97% of them believe that prevention is better than getting the disease.

**Conclusion:** The majority of the pregnant mothers (86%) who participate in clinics have good knowledge of the transmission mode of COVID-19, signs and symptoms, and preventive methods. Similarly, it can be concluded that all of the antenatal mothers who participate in antenatal clinics have good practices for preventing COVID -19. Furthermore, it is possible to conclude that there is a slight positive correlation between knowledge and practice of COVID-19 prevention among these mothers.

**Key Words:** *Knowledge, Pregnant women, COVID-19, Prevention, Transmission methods*

**Knowledge, attitude, and practice towards blood donation and blood transfusion among healthcare staff in Base Hospital Dehiattakandiya, Sri Lanka**

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**Introduction:** Blood donation is a major concern to society as donated blood is lifesaving for many individuals. The concept of voluntary blood donors is almost non-existent due to the absence of blood donor motivation and retention strategies. The healthy, active, and receptive population can be potential blood donors to meet the safe blood requirements. This study aims to assess the existing knowledge, attitude, and practice towards blood donation and blood transfusion among healthcare staff in Base Hospital Dehiattakandiya.

**Methods:** A descriptive, cross-sectional study was carried out among 100 healthcare staff members who were approached through convenience sampling. A questionnaire was circulated amongst health care staff aged 25–60 years working in the Base Hospital in Dehiattakandiya, Sri Lanka. The collected data was analyzed with the aid of Microsoft Excel.

**Results and Discussion:** The questionnaire was distributed among males and females where the majority were females (67%). Among the study participants, 78% had good knowledge and most of the participants (74%) also had a positive attitude towards blood donation and transfusion. In terms of practice, the majority of the respondents (74%) were found to have donated blood at least once in their lifetime whereas the rest did not donate blood as they have not been approached to do so. Knowledge and attitude levels of the participants were not found to be significantly associated with sociodemographic parameters of the study

**Conclusion:** The majority of the healthcare staff of the Base Hospital in Dehiattakandiya seem to have knowledge regarding blood donation and are currently donating blood. However, the awareness regarding the importance of blood donation needs to be improved among the staff who have not yet donated.

**Key Words:** *Blood donation, Healthcare Workers, Knowledge, Attitude, Practices*

## PP 003

### **The assessment of self-medication practices for common ailments and their associated factors among workers of a private office in Badulla, Sri Lanka**

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**Introduction:** Individuals choose and utilize medicines to address self-recognized or self-diagnosed diseases or symptoms, which is known as self-medication. This is a common practice that is used by modern consumers who want to have active control of their own health. However, self-medication can lead to deleterious events on health. The aim of this study was to determine the most common self-medication techniques used and to determine the factors that influence self-medication.

**Methods:** A descriptive cross-sectional study was conducted on individuals who were working in the selected private office in Badulla. A total of 129 individuals were included in the sample through convenience sampling. Data was collected via a printed, self-administered questionnaire and analysed descriptively.

**Results and Discussion:** Out of the 129 individuals approached, 127 responded (98.4%). Among 127 participants, most of the respondents (72.4%, n=92) have studied up to the Ordinary Level. The most common condition the respondents used self-medication methods during the last 3 months was to treat gastric acidity (30%, n=38). The majority of the respondents (75.6%, n=96) obtained information about the drugs with their own previous experiences. The respondents (41%, n=52) used self-medication to save time. Moreover, more than half of the respondents (55%, n=70) used Ayurvedic medicine as self-medication to treat themselves whereas only 7% (n=9) preferred both Ayurvedic and allopathic medicines.

**Conclusion:** It was revealed that the respondents used Ayurvedic methods as self-medication more than over-the-counter drugs. Acidity is the most common condition which has led to self-medication practices. Programs should be organized to inform people about the negative consequences of self-medication.

**Key Words:** *Self-medication, Acidity, Self-recognized, Allopathic medicine, Ayurvedic medicine*

**Knowledge about heart failure management among nurses at Cardiology Unit of National Hospital, Sri Lanka**

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**Introduction:** Heart failure (HF) is recognized as a clinical syndrome characterized by poor pumping ability of the heart. This leads to an insufficient supply of oxygen and nutrients to the tissues and cells. Nurses are responsible for monitoring patients, managing symptoms, providing education, decreasing morbidities, and improving the quality of life of the patients diagnosed with HF. The objective of this study is to assess the knowledge about management of HF among nursing officers in the Cardiology Unit of National Hospital in Sri Lanka.

**Methods:** This was a descriptive, cross-sectional study, which used a self-administered questionnaire for the data collection. This study was conducted among a conveniently-selected, 105 nurses who were allocated to duties at the Cardiology Unit. The obtained results were analyzed descriptively using SPSS version 22.

**Results and Discussion:** The questionnaire was distributed among the nurses where 42.8% (n=45) of them were from the age group of 30 to 40 years. Most of the respondents (61.9%, n=65) had a Diploma in nursing. Only 34.28% (n=36) of the respondents had previously participated in any HF management program. The majority of the participants (89.5%, n=94) had answered the questions with regards to the diet in HF management correctly. The respondents also seem to have a good knowledge related to the management of HF where 76.1% (n=80) had given the correct answers. Moreover, fluid and weight management is a very important point in HF management where most of the respondents (83.8%, n=70) had provided correct answers to those questions. The majority of the participants (86.3%, n=71) had sufficient knowledge related to the management of HF signs and symptoms.

**Conclusion:** Revising the knowledge frequently and implementing programs in order to improve the basic knowledge in HF management among nursing officers working in cardiology units can be recommended. Improving not only the theoretical but also practical knowledge of nursing officers is very important in order to expect a better outcome in patient caring and to prevent adverse effects of HF.

**Key Words:** *Nurses, Heart failure, Management, Knowledge, Cardiology*

**Assessment of frequency of domestic accidents among children under five years and knowledge of their mothers on prevention and management**

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**Introduction:** Domestic accidents are considered to be a worldwide public health problem. It is considered to be the third leading cause of death. Every year, millions of children die or get permanently disabled or disfigured because of accidents. The objective of this study was to assess the level of knowledge among mothers with respect to domestic accidents of preschool or younger children and to determine its association with demographic factors.

**Methods:** A descriptive, cross-sectional study was conducted by a randomly-selected 60 mothers who were at the Lady Ridgeway Hospital with injured children under the age of five years, admitted due to domestic accidents. A detailed interviewer-administered questionnaire was used to collect data which were then analyzed descriptively.

**Results and Discussion:** The participants who belonged to 18-25 years of age were 33.3% (n=20), 26-40 years were 51.7% (n=31) and over 40 years were 15.0% (n=9). According to research findings, children mostly of 1-2 years of age faced domestic accidents more than 3-4 years of age children, which respectively was 36 children (60%) aged 1-2 years and 24 children (40%) aged 3-4 years. Children in nuclear families (61.7%, n=37) had faced more accidents compared to extended families (38.3%, n=23). Most of the cases (78.3%, n=47) have occurred when the child was alone. Fallen from a height, which included 11 children (18.3%), was the most frequent type of domestic injury recorded. Respondents from all age groups regardless of their education status had knowledge about domestic accident prevention methods. Mothers, less than 40 years of age (85%, n=51) had a higher level of knowledge about first aid methods for domestic accidents.

**Conclusion:** This study revealed that there was a high prevalence of domestic accidents among preschool children in the accident service. The age of the child and family type could play a significant role with regard to the occurrence of domestic injuries. It can be suggested that the parents should control and supervise the environmental conditions and eliminate hazardous conditions from the areas where children play and live in order to minimize the occurrences of domestic accidents.

**Key Words:** *Domestic, Accidents, Injuries, Children, Preschool*

## PP 006

### **A study on nutrition-related knowledge, attitude, and practices among elderly people in Sri Lanka**

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**Introduction:** Age is a major risk factor for non-communicable diseases such as chronic obstructive pulmonary disease, cardiovascular diseases, type-2 diabetes, cognitive decline, dementia, and cancer, all of which have high associated costs of diagnosis, treatment, and care. Having adequate nutrition-related knowledge, attitudes, and practices among the elderly population will reduce the illness among them. The aim of this study was to assess the nutrition-related knowledge, attitudes, and practices among elderly people and to understand the nutritional status of elderly people.

**Methods:** A descriptive, cross-sectional survey was done among 150 elderly people, selected through convenience sampling technique. An interviewer-administered questionnaire was used to collect information and was analyzed descriptively.

**Results and Discussion:** Out of the 150 respondents, the majority of the respondents were females (54%, n=81). A majority of the participants had adequate awareness regarding nutritional requirements (68%, n=102). When considering the attitudes, less than half of the sample (47.3%, n=71) had positive attitudes. A smaller number of respondents (35.4%, n=53) had appropriate practices.

**Conclusion:** Knowledge related to nutrition among the elderly people in the area is better than attitudes and practices. The nutritional status among the elderly population seems to be poor. Appropriate guidance should be given in order to improve the attitudes and practices among the elderly population related to nutrition. Developing geriatric care will help them stay safe and healthy till the end of life.

**Key Words:** *Nutrition, Knowledge, Attitude, Elderly, Practices*

## PP 007

### **Assessing awareness on glaucoma among adults in Alawwa secretariat division, Sri Lanka**

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**Introduction:** It is thought that 4.5 million people across the globe are blind because of glaucoma, making it the third-highest cause of blindness worldwide. There are different types of glaucoma and the treatment varies from patient to patient. Glaucoma can neither be cured nor is the lost vision restored. However, further loss of vision can be prevented by medicine and surgery. The main objective of the study was to assess the awareness regarding glaucoma among the adults in the Alawwa secretariat division, Sri Lanka.

**Methods:** A descriptive, cross-sectional study was conducted by selecting a sample of 100 adults of both genders, above the age of 40 years, who were approached through a systematic sampling technique. The collected data through an interviewer-administered questionnaire was analyzed using Microsoft Excel version 2007. The rights of the participants were protected throughout.

**Results and Discussion:** The majority of participants (53%) were A/I (n= 53). Nearly half of the participants (n=46) believed that glaucoma results from mature cataracts. It was not uncommon for the eye-care personnel of this region to be repetitively asked whether the cataract had changed to glaucoma or by the patients not coming for cataract evaluation. A very low number of respondents (n=7) knew that glaucoma was an asymptomatic disease, which is a matter of great concern. Only the participants who knew about the irreversible nature of visual loss in glaucoma (n=24) have been to the clinic regularly.

**Conclusion:** A relationship between age or gender and glaucoma awareness cannot be identified from the results. Awareness regarding the management and care regarding glaucoma seem to be very low in the public. Interventions on increasing awareness among young rural populations should be initiated to offer higher benefits to the community. Those with fewer resources should be provided with free screening services and encouraged to attend. In addition, women should be encouraged to have regular blood glucose level tests to improve good management practices.

**Key Words:** *Glaucoma, Intraocular pressure, Glaucoma medications, Neuroprotection, Optical coherence tomography*

**Knowledge and practices of first aid in road traffic accident emergencies among school bus drivers in Kalutara area, Sri Lanka**

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**Introduction:** Every year, the lives of more than 1.25 million people are cut short as a result of road traffic accidents (RTA). The most important is the “Golden Hour” in trauma, & definitely, the victim’s life will be depending on how the involved persons act that moment by giving first aid. Most responsible persons to manage RTA are drivers, the first aid training is most essential to the drivers. Thus, the drivers must know first aid to reduce the RTA injuries by giving accurately at the right time & minimize the deaths of persons. The aim of this study was to assess knowledge and practices of first aid in RTA emergencies among school bus drivers.

**Methods:** A descriptive study was conducted among a sample size of 100 school bus drivers in Kalutara area, who were approached through a convenient sampling method. A self-administered questionnaire which included a total of 20 questions was circulated among these drivers who were aged 20 - 60 years. The responses were analyzed descriptively using Microsoft Excel.

**Results and Discussion:** The respondents were all males. There were 25 participants who had Ordinary Level examination qualifications, whereas no one had learned up to Advanced Level qualification. The majority of the respondents (n=88) had less than 10 years of driving experience. Most of the participants lacked first aid training (n=65) and had not been in a situation where first aid is required to be given (n=79). Almost all of the participants (n=96) knew the medical emergency contact number. In terms of practices, over one-third of the respondents (n=68) did not know how to perform a recovery position. However, 80 of them knew how to use a stretcher in case of spinal injury. Few of the participants (n=21) have attempted to perform left lateral position in the case of a serious injury. The majority of the drivers (n=84) noted that they would wash out in running water in case of a burn. Only just over one-third mentioned that they would elevate the site to minimize bleeding (36%). Most of the participants (n=65) would attempt to clear the airway instead of taking the victim to the hospital. A smaller number of participants knew how to perform CPR (n=15) and nearly half of them knew how to assess pulse (n=48).

**Conclusion:** This study found out that most bus drivers were not trained on first aid, did not have first aid kits, and had a low level of first aid-related knowledge. Less than half had assisted a victim of an accident in the past year. Results of the study revealed that educational status and first aid training are important factors for first aid practice.

**Key Words:** *RTA, First aid, School bus, Drivers, Knowledge*



## Nutrition and dietary habits among preschool children in Badulla West, Sri Lanka

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**Introduction:** Malnutrition is one of the leading causes of morbidity and mortality among preschoolers in Sri Lanka. Preschoolers need healthy food to meet their growth and developmental needs. Reduction of malnutrition in preschool children can be ensured by the availability of supplementary food. Healthcare providers should focus on health education among parents, especially on the exact nutritional requirements, quality, and quantity, of the child at specific ages. This study aims to assess the knowledge among mothers regarding nutrients and dietary patterns of preschool children and prevention from malnutrition or other nutrition-related diseases.

**Methods:** A descriptive, cross-sectional design was used to explore the public knowledge regarding nutrition and dietary patterns. The study was carried out among a conveniently-selected 100 mothers of preschoolers studying in the Badulla West area. Data was collected through a printed, self-administered questionnaire and the collected data were analyzed descriptively.

**Results and Discussion:** The majority of the respondents (50%) had children aged 5-6 years, whereas 40% of the respondents had children who were aged 4-5years and 10% of the children were aged 3-4 years. The majority (58%) of the respondents had children who belonged to the underweight category according to the body mass index (BMI), whereas only 30% of the preschoolers had a healthy weight. A relatively low percentage of respondents had children who were overweight (10%) or obese (2%). The majority of the respondents (72%) were not aware of what a balanced diet means.

**Conclusion:** According to the research results most preschoolers are underweight. The reason for this could be less awareness regarding a balanced diet and correct dietary patterns. Therefore, it is necessary to encourage behavioral changes and to implement public policies to fight inadequate nutrition levels and poor dietary habits.

**Key Words:** *Children, Dietary habits, Imbalanced nutrition, Malnutrition, Parents*

**A study on knowledge and attitudes among parents of preschoolers regarding pediatric first aid in Maho MOH area, Sri Lanka**

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**Introduction:** First aid (FA) is given to save lives and prevent the conditions from getting worse when an injury occurs. Parents who have children in preschool years are highly required to know about FA, as preschoolers are more prone to get into such accidents. Unintentional injuries have become one of the leading causes of morbidity and mortality among children worldwide. The aim of this study was to assess a baseline level of FA knowledge and overall attitudes regarding pediatric FA among parents in the Maho MOH area.

**Methods:** A community-based cross-sectional study was conducted among 100 conveniently-selected families residing in the Maho MOH area, where only one parent from the family was included in the study. An interviewer-administered questionnaire was used to collect data and analyzed descriptively using Microsoft Excel.

**Results and Discussion:** The majority of the respondents were females (75%). Most of the participants were 25-30 years old (52%). When considering the knowledge component, the majority of the respondents had knowledge regarding general FA (62%) yet, 62% of the parents were not aware regarding pediatric-specific FA methods. A very low percentage of respondents (10%) knew about the first reaction to a convulsive seizure. The respondents who had an idea of the way to react when their child got a chemical injury to the eye were only 25%. Less than half of the participants (44%) knew the next step of FA when a child faints. Only a low percentage of respondents (22%) were aware of very common issues, such as FA in a swelling condition. Moreover, all of the participants have agreed that they need to improve their knowledge of pediatric FA.

**Conclusion:** Even though parents were aware of general FA procedures, the study showed that most of them had poor knowledge regarding pediatric-specific FA methods. Public health programs need to be organized in these communities to educate parents on pediatric FA. These precautions will be helpful in saving more lives of children and minimizing disabilities.

**Key Words:** *First aid, Parents, Pediatric, Pre-school, Knowledge*

## PP 011

### **Knowledge, attitude and practice of family planning methods among women attending the gynecological clinic at Provincial General Hospital – Badulla, 2020**

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**Introduction:** Family planning (FP) supports people's decisions about if and when they would like to have children by offering education, counseling, and birth control methods. Planned pregnancies result in healthier babies and fewer medical problems for the woman. Planning for a child will help avoid the social, health, and financial problems regarding unplanned pregnancy. This study was aimed to identify the knowledge, attitude, and practice of family planning among fertile women.

**Methods:** A descriptive, cross-sectional study was conducted for a period of seven months. A total of 150 fertile women attending the gynecological clinic at Provincial General Hospital - Badulla were included in this study. A self-completion questionnaire was used for data collection among 20 to 60 years old women who could communicate in Sinhala. Data analysis was done as computerized descriptive statistics and presented in the form of tables, frequencies, and percentages.

**Results and Discussions:** The majority of the respondents (50.7%, n=76) were between 31 to 40 years of age. Most of the respondents (65.2%, n=97) had adequate knowledge related to FP. A significant number of participants (96%, n=144) accepted that there could be unnecessary pregnancies when not using FP methods. The majority of the respondents (83.3%) were having thoughts about the probability of failing using FP methods. A significantly large number of respondents (78.7%, n=118) were using FP methods. When considering FP practices, most of the respondents (62.6%) were following such practices where 32 of the respondents were using loops and another 32 of them were using condoms. Most of the participants' thought (80%, n=120) both males and females have the responsibility to use FP methods.

**Conclusion:** On average, most of the participants were aware of FP. Yet, a majority of the respondents thought the FP methods could fail. Health workers should educate people regarding FP to improve their awareness further. As there is a lack of involvement in educational programs by medical professionals, preparation and implementation of FP to improve knowledge and methods will be a great investment for future generations.

**Key Words:** *Knowledge, Attitudes, Practices, Family planning, Fertile women*

## PP 012

### **Study on health beliefs and health behavior related to hypertension risk among patients attending NCD clinic in Base Hospital - Wellawaya, 2021**

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**Introduction:** Hypertension is a vascular disorder associated with high morbidity and mortality. Risk factor prevention plays a key role in the control of this non-communicable disease. This study aimed to identify the lifestyle of hypertensive patients, focusing on their health beliefs and behaviors related to hypertension risk in order to implement strategies that favor hypertensive patients who are undergoing treatment to have a healthier life.

**Methods:** This cross-sectional, descriptive study was conducted for a period of seven months (February to August 2020). A total of 150 hypertensive patients attending the NCD clinic in Base Hospital - Wellawaya were conveniently selected for this study and subjected to an evaluation of modifiable risk factors such as obesity, lack of exercise, smoking, dyslipidemia, and pre-existing diabetes mellitus along with non-modifiable risk factors such as positive family history and age. Univariate and bivariate analyses were used for data analysis to see the frequency distribution and to test whether there were associations/differences between hypertension and selected independent variables, respectively.

**Results and Discussion:** On risk factor evaluation of 150 hypertensive patients, it was found that 89.4% of the participants had a lack of exercise, 31.2% had dyslipidemia, 28.2% were smokers, and 24.4% had diabetes mellitus before the emergence of hypertension. A low number of participants (19.6%) were obese, whereas a significantly large number of participants (74.1%) were over 60 years of age. Moreover, 13.9% of the participants had a family history of hypertension.

**Conclusion:** High prevalence of risk factors for this non-communicable disease in the Sri Lankan community is alarming. Dealing with modifiable risk factors by health education, promotion of exercises, favorable lifestyle, dietary modifications, and cessation of smoking, screening programs for early detection of deranged blood pressure, blood sugar, and lipid profile can be effective preventive strategies. The 'Health Belief Model' can be used by health professionals as a theoretical framework to explain human behavior related to the health-disease process.

**Key Words:** *Hypertension, Blood pressure, Health belief model, Health seeking behavior*

**A study on the knowledge, attitude, and practice toward cervical cancer among women in Ganemulla area, Sri Lanka**

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**Introduction:** Cervical cancer is an abnormal growth of cells in the cervix that has the ability to invade or spread to other parts of the body, most notably the lungs, liver, bladder, vagina, and rectum. However, cervical cancer is slow-growing. Therefore, its progression through precancerous changes provides opportunities for prevention, early detection, and treatment. The main objective of this research is to assess the level of knowledge, attitude, and practices of women aged 35-44 years on their understanding of symptoms and risk factors of cervical cancer, its early detection, and prevention.

**Methods:** A cross-sectional study was conducted in rural areas of Ganemulla from June to July 2020 by using pre-tested modified questionnaires. Simple randomization was done to select the 190 participants from the selected population and women with a family history of cancer were excluded from this study. The purpose of the questionnaire was to assess the demographic data, knowledge, attitude, and practice of the participants toward cervical cancer. Descriptive analysis was conducted using Microsoft Excel.

**Results and Discussion:** A total of 190 women had participated in this study (100% response rate). Only a minority (20%) had secondary education. The most common age group was 35-40 years (55%). The majority of the participants had one child (83%) and 50% were married when they were 21 to 25 years of age. Most of the respondents had heard about cervical cancer (89%) and among them, 96% had heard about cervical cancer screening prior. The majority of the respondents (86%) had never undergone cervical cancer screening or Pap smear testing and none of the women had been vaccinated against HPV. The main source of information on cervical cancer was the media (72%) and the main barrier for not undergoing cervical screening was insufficient awareness of its importance (76%).

**Conclusion:** The knowledge regarding the risk factors, symptoms, and preventive measures was insufficient among the study population. Most of the women had never undergone screening and vaccination against HPV; however, their attitude is favorable for screening and vaccination. Improvements in female education rates, open conferences regarding sexual health, and increasing information availability will eventually improve the attitude and practice toward cervical cancer screening. Online modules are more effective since the main information source of the current population is the media and most women are housewives; therefore, these can be recommended to increase awareness.

**Key Words:** *Cervical cancer, Women, Vaccine, Screening, Knowledge*

**Associated factors for exacerbation of COPD and quality of life among patients with COPD on treatment in chest clinic, Provincial General Hospital - Badulla, Sri Lanka**

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**Introduction:** Chronic obstructive pulmonary disease (COPD) develops slowly and usually worsens over time. The main risk factor for COPD is smoking. According to the American Lung Association, smoking causes up to 90% of COPD deaths. The main symptoms of chronic bronchitis are cough and excessive mucus production at least three months a year. Other signs and symptoms of COPD may include, shortness of breath, wheezing, chest tightness, chronic cough, and cyanosis. The aim of this study is to assess the associated factors for exacerbation of COPD and to assess the quality of life (QOL) related to physical, psychological, social, and environmental health among patients with COPD.

**Methods:** A descriptive, cross-sectional study was conducted among 150 patients according to random sampling method, who were having treatments for COPD at chest clinic, Badulla. A pre-tested questionnaire was administered to those patients. Statistical analysis was performed using SPSS 23 software and Microsoft Excel 2016.

**Results and Discussion:** Out of 150 participants, the majority were males (66.7%, n=100). According to the results, non-smokers (45.3%, n=68) were higher when considering smokers. Exacerbation of COPD mostly affected the QOL of the participants (p=0.002). Most of the patients were having difficulty in breathing (85.3%, n=128) and a smaller number of patients had difficulty in walking (20%, n=30) as well. Most of the participants used beta-2 agonists (96%, n=144) to minimize the symptoms. Further, the sleepiness of the participants (p=0.000) also affected their QOL. Most of the patients had moderate physical (55.3%, n=83), psychological (66.7%, n=100), and environmental (60.0%, n=90) QOL. In terms of QOL 51.3% (n=77) of the participants had scored low in the social component of the QOL.

**Conclusion:** Apart from smoking, acute exacerbations were considered to be a contributing factor for the progression of COPD. Overall QOL was moderate in most of the participants. In fact, the participants had moderate physical, psychological and environmental QOL and poor social QOL.

**Key Words:** *COPD, Exacerbation, Physical, Psychological, Quality of life*

**Awareness of breast cancer and self-breast examination among women in the Badulla MOH area**

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**Introduction:** Breast cancer (BC) is recognized as the commonest cancer among females worldwide. This study aims to investigate the awareness of breast cancer, treatments, and knowledge regarding self-breast examination (SBE) among women in the Badulla MOH area.

**Methods:** A cross-sectional survey was conducted among women who were 20-40 years old. A self-administered questionnaire which included a total of 20 closed-ended questions was circulated among 120 women from five villages in the Badulla MOH area, selected through a stratified random sampling technique. Data were analyzed using the descriptive statistic method using Microsoft 2010 software.

**Results and Discussion:** The majority (72%) of the respondents were aged 23-30 years. Most of the respondents (67%) were unmarried and did not have a family history of BC (95%). A significant number of respondents (90%) had their age as a risk factor. Nearly one-fourth of the respondents (23%) were using hormone replacement therapy and out of them, the majority use birth control pills as a type of therapy (91%). Most of the respondents (98%) were aware that a new lump in the breast or armpit that is different from the rest of the breast could be a sign of BC. The majority of the respondents (60%) did not know the meaning of metastasis. Moreover, all the respondents agreed that chemotherapy is a treatment used to treat BC. All the respondents mentioned that they would see a doctor if they found a lump in their breasts. A significant number of respondents (72%) had never heard of the term SBE. However, most of the respondents (72%) recognized the importance of SBE. A significant number of respondents (91%) knew what to look for when feeling/observing/checking their breasts. Nearly half of the respondents (44%) agreed that the suitable time for SBE is after menstruation. Most of the respondents (73%) would perform SBE in front of a mirror. In this study, it was evident that even though a vast majority of women in a MOH area of Badulla knew about breast cancer, many had less awareness regarding its risk factors, prevention, and treatment.

**Conclusion:** Results showed an average knowledge of risk factors associated with breast cancer. All the other variables such as age, gender, education level, and marital status did not have a significant influence on the level of understanding of risk factors of breast cancer. The practice of SBE which is perceived as being important is not frequently practiced in these women in the Badulla MOH area.

**Key Words:** *Breast cancer, Awareness, Self-breast examination, Risk factors, Treatment*

**Prevalence of anxiety and depression among chronic kidney disease patients**

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**Introduction:** The term CKD (chronic kidney disease) has replaced terms such as chronic renal failure or insufficiency. CKD implies longstanding (more than 3 months) and usually progressive impairment in renal function. In many instances, no effective means are available to reverse the primary disease process. Depression can be difficult to identify in kidney patients because many of the key symptoms, such as insomnia, loss of weight or appetite, and low energy, can also be attributed to kidney disease itself. Despite this, people with CKD and end-stage renal disease face higher rates of depression as a group. The main objective of this research is to determine the prevalence of depression between patients who require hemodialysis and those who do not.

**Methods:** This cross-sectional study was conducted on 384 patients admitted, to the nephrology ward of National Institute of Nephrology Dialysis Transplantation – Maligawatta, with CKD during the time period of the study (6 months). The patients diagnosed with depression prior to CKD and patients under 18 years of age were excluded from this study. An interviewer-administered questionnaire was used to collect data related to demographics, clinical history, examination, and assessment findings. The gathered data was analyzed using descriptive statistical methods using SPSS 25 statistic package.

**Results and Discussion:** The majority of the respondents were females (53.1%, n=204). According to the ethnicity of the selected population, 75% of the sample were Sinhalese, 15% were Tamils and 10% were Muslims. Over three fourth of the participants (76%) were married. One-fourth (25%) of the participants with CKD require dialysis. Results suggest that depression is associated with poor quality of life and adverse medical outcomes in patients with CKD (p<0.05).

**Conclusion:** In conclusion, it is evident that there is a prevalence of both CKD patients who required hemodialysis and those who did not require hemodialysis. Further, the results are suggestive that there is a correlation between depression and CKD. There have to be counseling sessions in place to support patients with CKD to have a better quality of life.

**Key Words:** *Chronic kidney disease, Depression, Anxiety, Hemodialysis, CKD*



## PP 017

### **A study to assess the level of stress among mothers with children below one year in the Balangoda MOH area**

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**Introduction:** Stress is a physical, mental, or emotional factor that causes bodily or mental tension. Mothers' stress can be defined as the aversive psychological reaction to the demands of being a mother. Some of the factors that can cause stress among mothers are lack of time, financial burdens, relationship issues, and protection of infants, self-doubt thinking they are not responsible enough to look after the baby, and many mothers find it difficult to make time and save energy to care for themselves. The main aim of this study is to assess the stress levels of mothers with children below one year and to determine the reasons for the cause of stress and help them get rid of stress with solutions.

**Methods:** A descriptive, cross-sectional study was conducted among 100 mothers. A convenience-sampling method had been used to select the sample and a self-administered questionnaire was distributed among mothers with a child under one year. SPSS was used to descriptively analyze the collected data.

**Results and Discussion:** There was a response rate of 86%. In the study, 34.9% of mothers were 23 to 27 years old. Over one-third of the respondents had two children (34.9%). The study showed that a child with a disability or illness can increase the stress of the mother ( $p < 0.05$ ). The mean value showed that mothers were stressed when caring for their child takes more time and when it requires more work ( $p < 0.05$ ). Many of the mothers mentioned their child as the major source of stress in their life (36.1%).

**Conclusion:** According to the findings, disability and illness of children and relationship problems have a significant impact whereas less time management and financial issues have no significant impact on mothers' stress. After identifying these concerning factors, it is recommended to have mental health programs for mothers to help them cope with their stressors.

**Key Words:** *Infants, Stress, Illness, Relationship issues, Financial burdens*

**Knowledge and awareness on accidental dental traumas among undergraduate nursing students in Sri Lanka**

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**Introduction:** Dental trauma refers to an injury to the teeth, periodontium (gums, periodontal ligament, alveolar bone), and/or nearby soft tissues such as the lips and tongue. Dental trauma is a painful experience that can impair facial function and affect growth, occlusion, and aesthetics. As nurses stand on the front lines of responding to an emergency, it is essential that they also possess adequate knowledge about dental traumatic injuries and emergency management. This study aims to assess the level of knowledge and awareness of accidental dental traumas among registered nurses in Sri Lanka.

**Methods:** A descriptive, cross-sectional study was conducted among a conveniently-selected 163 respondents. A self-administered questionnaire, in the form of a Google Form, was circulated among the participants who were studying at a higher-educational center. The obtained data were analyzed with the use of Microsoft Excel.

**Results and Discussion:** Most of the respondents (51%) noted that they have confidence in handling dental trauma in their working places. A majority of the nurses (88%) knew what a tooth replantation was and 31% of the nurses knew how it is done more effectively, noting that the time chosen for the replantation is related to the time which was taken from trauma to the replantation. Only 18% of respondents knew the optimal transportation method of an avulsed tooth.

**Conclusion:** This study indicates that there is a gap of knowledge and awareness in handling dental trauma by practicing nurses. It has been noticed that nursing staff have an abundant enthusiasm toward the need for further preparation in emergency management of dental injuries, but there is a need for combining emergency management of dental injuries in their curriculum.

**Key Words:** *Dental trauma, Nurses, Sri Lanka, Knowledge, Awareness*

**Work-related stress and coping strategies for managing stress among surgical nurses in North Colombo Teaching Hospital (NCTH), Sri Lanka**

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**Introduction:** When working properly, stress helps people to stay focused, energetic and alert. Nevertheless, when it exceeds a certain level, stress halts being helpful and starts triggering major damage to health, productivity, frame of mind, relationships, and quality of life. In addition, the stress level can be categorized as a low, moderate, or higher level. Nursing is considered a more stressful occupation globally. Work-related stress has been identified as a significant factor in care delivery in every organization. Moreover, coping is a crucial part of understanding stress and different strategies of coping with stress were identified as problem-focused, emotion-oriented, and avoidant. The aim of this study was to assess the occupational stress level of nurses and their coping strategies.

**Methods:** This study was done as descriptive cross-sectional research. Data were collected among 130 conveniently-selected nurses working in surgical wards of NCTH by distributing a self-made questionnaire. Data analysis was done descriptively through MS-Excel 2010 version.

**Results and Discussion:** A total of 117 respondents (90%) responded. The majority of the respondents (43.5%, n=51) were stressed at a moderate level. Among them, 59% (n=30) agreed that they were stressed due to heavy workload. Most of the respondents (57%, n=29) agreed that lack of staff was identified as a stress factor. Moreover, most of the respondents (57.2%, n=67) agreed that fear of making a mistake when treating patients is a stress factor.

**Conclusion:** The study showed that nurses were stressed at a moderate level. Proper techniques should be taken to minimize the stress level in all nurses and proper steps should be taken to eradicate causes for stress. Thereby, the management in NCTH should appoint more nurses to resolve the issues of lack of staff and heavy workload. In addition, they should organize stress-managing programs to practice breathing exercises, relaxation therapies, social support therapies, and meditation.

**Key Words:** *Occupational stress, Stress level, Responsibilities, Workload, Lack of staff*

**Awareness of non-pharmacological methods of treatment among diabetes mellitus patients attending the medical clinic and medical ward of Base Hospital Pulmoddai**

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**Introduction:** Diabetes is a chronic, metabolic disease characterized by elevated levels of blood glucose. This leads to serious damage to the heart, blood vessels, eyes, kidneys, and nerves. The most common is type-2 diabetes mellitus among adults, which occurs when the body becomes resistant to insulin or does not make enough insulin. The purpose of this study was to assess the awareness of non-pharmacological methods among patients with diabetes mellitus attending the base hospital Pulmoddai.

**Methods:** A descriptive, cross-sectional study was conducted among 100 patients selected from the medical clinic and medical ward of Base Hospital Pulmoddai. The participants were selected through a convenience sampling method. An interviewer-administered questionnaire developed by the researcher was used to obtain data. The obtained data were descriptively analyzed with the aid of SPSS software.

**Results and Discussion:** Ages of the participants ranged between 30 and 60 years. According to the results, the majority of the respondents (65%) were females. Those who have higher education (A/L or higher) understand the effects of diabetes and are managing themselves through their eating habits. They are also aware that they can control their body weight by exercising and eating a nutritious diet.

**Conclusion:** Diabetes mellitus, if not treated properly, can spread to pandemic proportions, resulting in fatal complications. Thereby, key components such as diet, exercise, and diabetes education must be addressed, and lifestyle improvements should be prioritized.

**Key Words:** *Non-pharmacological treatments, Diabetes mellitus, Awareness, Eating habits*

## PP 021

### **Awareness and practices on disposal of expired and unused medication among patients visiting outpatient department (OPD) of Divisional Hospital - Galauda in Badulla, Sri Lanka**

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**Introduction:** Pharmaceuticals are produced and consumed in increasing volumes every year. The large quantities of unused or expired medication remaining in households could possibly lead to inappropriate medicine sharing, accidental childhood poisonings, and also have hazardous impacts on the environment and health. The main objective of this study is to assess the awareness and practice on disposal of expired and unused medication among patients visiting outpatient departments (OPD) in Divisional Hospital - Galauda, Badulla.

**Methods:** A descriptive, cross-sectional study was done. Data were collected respectively based on an interviewer-administered questionnaire. The accessible sample consisted of a conveniently-selected 120 patients. Collected data were analyzed descriptively through Microsoft Excel.

**Results and Discussion:** Among 120 participants, 41.67% (n=50) have completed education up to the Ordinary Level. Most participants (73.33%, n=88) displayed correct understandings of medical waste and 80.0% (n=96) of these participants knew its effect on the environment if not disposed of properly. A large portion of the respondents did not know about the drug-take-back system (98.33%, n=118). Approximately 80.0% (n=96) of the respondents had unused medicine stored at home and 94.17% (n=113) kept the medicine in a secured place where it was unreachable to children. Preferred ways of disposal of both unused and expired medicine were, disposing them along with household garbage (69.17%, n=83).

**Conclusion:** According to this study, there was a high practice of keeping unused medication at home. Although the majority of the participants were aware of potential risks associated, there was a lack of adequate information on safe disposal practice and most respondents mentioned the need for a system that encourages safe disposal of unwanted pharmaceuticals such as a “drug take-back program”. It seems the most preferred methods for disposal of unused and expired medicines were not the recommended methods; therefore, there need to be awareness campaigns regarding proper disposal methods and “drug take-back program”.

**Key Words:** *Disposal practice, Unused medication, Expired medication, Outpatient department, Awareness*

## PP 022

### **A study on knowledge and practices regarding newborn care and associated factors among postnatal mothers in Sri Lanka**

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**Introduction:** Globally 4 million newborns die every year before they reach the age of one month. Out of the 1.5 million newborns die in four countries of South Asia. At present, newborn survival has become an important issue to improve the child's health status and for achieving the millennium development goals. The main aim of the study is to investigate knowledge and practices regarding newborn care and associated factors among postnatal mothers in Sri Lanka.

**Methods:** A descriptive, cross-sectional study was done among 124, randomly-selected postnatal mothers admitted to North Colombo Teaching Hospital, Sri Lanka. Data collection was done through a self-administered questionnaire. Statistical Package for Social Science (SPSS), version 22 was used for data analysis.

**Results and Discussion:** The majority were 25 to 34 years old, married housewives, and had passed Ordinary Level. Knowledge and practices of postnatal women on breastfeeding are high (mean=69.67) while lowest on recognition of danger signs (mean=49.67). A greater proportion of (76.6%) responders had sufficient knowledge and practice on exclusive breastfeeding and noted that exclusive breastfeeding for 06 months is very important. The practice of the kangaroo method is exceptionally low where 44.4% of mothers did not even know regarding this method. Only 47.6% of them had sufficient knowledge and practice towards cord infection. Age, parity, and visited antenatal clinic were significantly associated with all recommended newborn care practices (<0.05).

**Conclusion:** The findings from the study showed that the knowledge and practice of breastfeeding and thermal protection and skincare were very high. Knowledge and practice of the kangaroo care method, recognition of danger signs, and cord care were considerably low. Mothers who attended antenatal clinic visits contributed to having more knowledge on newborn care than those who failed to attend antenatal clinic visits. Hence, it is important to recognize effective strategies that have an impact on both hospital and community practices, which will be useful for health policymakers in planning cost-effective interventions to improve newborn-related outcomes.

**Key Words:** *Newborn care, Kangaroo care, Breastfeeding, Postnatal*

**Knowledge, attitude, and practice of family planning among reproductive-age women in Kuliyaipitiya municipality and Kumbukkotuwa MOH areas**

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**Introduction:** Most women of reproductive age know little or incorrect information about family planning methods in Sri Lanka. This study was designed to assess the knowledge, attitude, and practice of family planning among reproductive-age women at Kuliyaipitiya Municipality and Kumbukkotuwa MOH areas.

**Methods:** A cross-sectional study was carried out among women of reproductive age in the Kumbukkotuwa MOH area. The convenience sampling method was used to identify 100 suitable subjects. Data were obtained using a self-administered questionnaire. A standardized collection of demographics was performed and participants were given the before-mentioned questionnaire to gather data regarding knowledge, attitudes, and practices toward family planning. Collected data were analyzed descriptively using Microsoft Excel.

**Results and Discussion:** According to the data, the majority of the participants were within the age range of 18-25 years, which is 68% of the total population. Further, 27% of the participants were in the range of 21-45 years and 5% of women were in the range of fewer than 18 years. When considering the educational level, there were 41% of participants who were educated up to A/L, 24% up to diploma, 18% up to O/l and 17% were graduates. The majority of the participants were married, which accounted for 90%. The results indicate that overall knowledge, attitude, and practices about family planning among women of reproductive age was found to be somewhat low and this could be identified by the visible frequency of incorrect responses to common family planning problems observed in the gathered data.

**Conclusion:** The level of family planning knowledge among the women of reproductive age in the society was low according to the study. There is an urgent need to educate them regarding family planning and factors associated with family planning. Family planning and birth spacing interventions need to focus on alleviating fears about side effects among women of reproductive age through effective counseling and providing adequate information. It is recommended that every health professional work on educating the community on family planning holistically to increase awareness and enhance the family planning concept.

**Key Words:** *Family planning, Knowledge, Practice, Married, Divorced*

**Prevalence of postpartum depression among women delivered at District General Hospital - Nawalapitiya**

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**Introduction:** The effect of postpartum depression on the mother, her marital relationship, and her children makes it an important condition to diagnose, treat and prevent. Untreated postpartum depression can have adverse, long-term effects on the mother. The episodes can be the precursors of chronic recurrent depression. The aim of the study was to determine the prevalence of postpartum depression among women delivered at District General Hospital (DGH) - Nawalapitiya.

**Methods:** In this study, a descriptive, cross-sectional design was used. The sample size was 180 postpartum mothers in the DGH - Nawalapitiya. The convenience sampling method was employed through an invitation to participate in the study. The data collection instrument was a self-administered questionnaire and the collected data were analyzed descriptively.

**Results and Discussion:** From the sample, 12.2% of respondents were single (n=22), 86.6% married (n=156) and 1.1% separated (n=2). Out of the total, 50% of the respondents were housewives (n=90), 16.6% self-employed (n=30) and 33.3% were employed in jobs (n=60). When considering their income, 16.6% had less than Rs. 20,000 of monthly income (n=30), 33.3% had between Rs. 20,000 - 30,000 (n=60), 33.3 % had between Rs. 30,000 - 40,000 (n=60) and 11.1% had more than Rs. 40,000 monthly income (n=20). According to the results, 90% had adequate partner support (n=162), while 10% did not. A minority of mothers' babies suffered from illness (11.2%, n=20) and 88.8% were healthy (n=160). Out of 180 postpartum mothers, 10.5% of the mothers were depressed (n=19).

**Conclusion:** This study found a prevalence of postpartum depression among women delivering at DGH Nawalapitiya, six weeks after delivery at 10.5% which is a significantly high value. Factors such as civil status, education, income, and partner support, and parity are statistically associated with PPD.

**Key Words:** *Depression, Mothers, Post-partum, Prevention*



**Awareness of dengue fever among the community in Dunuwila GS division in Central province of Sri Lanka**

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**Introduction:** Dengue fever is becoming more widely recognized as one of the world's growing infectious diseases. Dengue fever is one of the most common human viral diseases transmitted by arthropod vectors. Over half of the world's population are living in areas at risk of transmission of dengue fever. This study is conducted to assess the awareness of dengue fever among the community in the Dunuwila GS division of Sri Lanka.

**Methods:** A descriptive, cross-sectional study was conducted in a village in the Dunuwila GS division among a conveniently-selected 260 people. A printed, self-administered questionnaire was circulated and the collected data was analyzed with the help of SPSS software.

**Results and Discussion:** The majority of the participants were females (72%) with the majority having higher education. Most of the respondents were between the ages of 40 and 49. In terms of awareness, the majority of the respondents (98%) were aware that dengue fever is a viral disease. Dengue fever symptoms and signs are known among 86.8% of people. Furthermore, 93.2% of the participants believed that dengue fever could be transmitted from person to person several times. Respondents' awareness of dengue vector breeding areas and the route of transmission into patients were less (46%).

**Conclusion:** When considering the community members in the Dunuwila GS division of Sri Lanka, they had an acceptable level of knowledge about dengue fever prevention and a reasonable level of understanding about the causes and transmission of dengue fever. In the community, the most suitable education and knowledge on research related to dengue fever will be beneficial in reducing the number of dengue cases in the future.

**Key Words:** *Dengue, Dengue fever, Awareness, Infection, Prevention*

**Level of knowledge regarding hypertension among patients attending the hypertensive clinic at Divisional Hospital - Kathiravelly, Sri Lanka**

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**Introduction:** Hypertension is one of the most common health problems in the world. Although hypertension can be modified, it is a leading risk factor for mortality. A large proportion of the elderly population suffers from uncontrolled blood pressure. Knowledge and lifestyle modifications play an important role in controlling hypertension and preventing long-term complications. This study aims to assess knowledge level regarding hypertension among selected individuals diagnosed with hypertension (HTN) at Divisional Hospital - Kathiravelly.

**Methods:** A descriptive, cross-sectional study was carried out. A survey method was used to collect data for the study, which consisted of closed-ended questions including demographic questions. The patients attending the hypertensive clinic of Divisional Hospital - Kathiravelly, who had been diagnosed with HTN, were recruited through a convenience sampling approach, yielding 120 responses. Data was collected through an interviewer-administered questionnaire and analyzed descriptively.

**Result and Discussion:** The majority of the respondents in this study were females (79.16%, n=95). The sample consisted of people of different ages, ethnicities, genders, and economic levels providing considerable variety. This study revealed that general knowledge about hypertension was inadequate, while participants scored an average of 35.79%. Patients lacked the understanding of risk factors, symptoms and required lifestyle modifications of hypertension. A combined percentage of 1.6% (n=2) of the participants, reported they would increase their exercise if they knew more about HTN. Also, there was a poor level of awareness regarding eating healthier among hypertensive patients. Out of 120 respondents, a combined percentage of 20.83% (n=25) of them were not aware of a suitable healthy diet for HTN.

**Conclusion:** This study has shown a poor level of knowledge about hypertension. Therefore, educational programs should be conducted to raise patient knowledge regarding hypertension. These programs must also influence people's views about how to reduce hypertension through lifestyle changes.

**Key Words:** *Hypertension, Knowledge, HTN, Hypertensive clinic*

**Knowledge, attitude, and practice on complementary feeding among mothers of children aged 6-24 months in public health midwives areas in Bible MOH, Sri Lanka**

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**Introduction:** The well-being of a child is directly related to their nutritional status. Malnutrition rate increases between 6 and 18 months - the period of complementary feeding. Complementary feeding is the introduction of semisolid or solid food in infants who are breastfeeding when the mother's milk is no longer enough to meet the nutritional needs. Understanding the social beliefs, knowledge, attitude, and practices about complementary feeding among mothers is an important step prior to designing an intervention strategy to prevent malnutrition in children. The aim of the study was to assess knowledge, attitude, and practices regarding complementary feeding among mothers.

**Methods:** Descriptive, cross-sectional study was conducted. The study included a conveniently-selected 284 mothers with children between 6 to 24 months of age in public health midwives areas with a high prevalence of malnutrition in Bible MOH. Data collection was done through a self-administered questionnaire and the collected data was analyzed descriptively.

**Results and Discussion:** According to the results, 60.5% of the mothers initiate breast milk soon after delivery. The initiation complimentary food at the age of 8 months, 6 month, and 4-5 months were 64 (32%), 104 (52%), and 32 (16%) respectively. However, 68% of mothers did not properly clean their children's hands and utensils before feeding.

**Conclusions:** Mother's knowledge regarding the timing of complementary feeding is adequate but practices are inappropriate. The majority of them are not aware of the current recommendations. It is essential to provide accurate information and education about complementary feeding to prevent malnutrition and improve the health status of children.

**Key Words:** *Feed, Malnutrition, Health, Mothers, Children*

**Knowledge, attitudes, and practices on contraceptives among married, fertile age women of Thanamalvila MOH area, Sri Lanka**

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**Introduction:** There may be some gaps in the use of contraceptives among fertile-age women and it is a significant issue in Sri Lankan society. The main aim of this research was to investigate knowledge, attitudes, and practices on contraceptives among married, fertile-age women of the Thanamalvila MOH area in Sri Lanka.

**Methods:** A descriptive, cross-sectional study was conducted. An interviewer-administered questionnaire was utilized to collect data from conveniently-selected, married, fertile-age women who live in the Thanamalvila MOH area. Data analysis was done descriptively via Microsoft Excel 2017 software.

**Results and Discussion:** Out of the total of 174, the majority of the women who participated in the study belonged to the age group of 35-40 (93.6%, n=163). The majority were married for more than 10 years (43.1%, n=75). All the respondents had heard of family contraceptive methods. All the participants had noted that they have sufficient knowledge to choose a contraceptive method. Over half of the respondents have chosen to limit children as an aim of contraceptives (52.9%, n=92). All participants had awareness of the side effects of family planning methods. When concerning the side effects of oral contraceptive pills, 113 (64.9%) mentioned irregular menstrual cycles. With the advancement of age, the respondents' knowledge regarding the side effects of contraceptives increased ( $p < 0.05$ ). A majority of participants had adequate knowledge regarding the use of contraceptive methods (56%, n=98). Out of the participants, 40 (23%) strongly believed that long-term contraceptive usage can cause subfertility, while 89 (51.1%) agreed that using contraceptives is very troublesome. In addition to that, 36 (20.7%) agreed that contraceptives are not necessary to keep the gap between childbirths, 54 (31%) felt embarrassed when discussing family planning methods. The majority of the study sample had used a contraceptive (82%, n=143). Among the participants who have never used a family planning method, 3 (9.6%) was due to fear of side effects. The majority (64%, n=111) were likely to use contraceptives. There is a significant relationship between age and the practice of contraceptives among respondents ( $p < 0.05$ ). Age, educational level, occupation, and marriage duration had played a key role in determining the knowledge, attitude, and practice of the women.

**Conclusion:** This study indicates that most women are aware of contraceptives, however lack knowledge on the aims and precautions related to contraceptives. There have to be awareness programs to improve the best use of contraceptives among fertile-age women.

**Key Words:** *Contraceptives, Fertile-age women, Married*

**The associative stigma of nurses on working in a psychiatric unit in the hospitals**

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**Introduction:** Stigma is a complex and multifaceted construct and often results from misunderstandings and misperceptions society has about people with mental illnesses. In Sri Lanka, neuropsychiatric disorders are estimated to contribute to 11.5% of the total burden of diseases and only a minority of these patients receive adequate treatment. Stigma has been identified as the main contributor to the treatment gap in mental health. The aim of this study was to identify associative stigma among nurses who are involved in psychiatric health care in the health sector.

**Methods:** This was a descriptive, cross-sectional study. Data was collected using a self-administered questionnaire distributed among 25 nurses, selected according to a convenience sampling method from the psychiatric unit of the teaching hospital, Kalubowila. Collected data were analyzed descriptively.

**Results and Discussion:** According to the findings, the majority of the employees had directly impacted other peoples' negative reactions towards job satisfaction. The majority of the employees (84%) were ashamed of working in the mental healthcare sector and 60% of the participants were reluctant to tell that they are working in a psychiatric unit since it has been impacted by a decrease in job satisfaction. The majority of the employees (76%) were directly impacted considering that mental health work is dangerous. Therefore, it is a demotivating factor for job satisfaction. The negative associative stigma of mental health services contributes to poor job satisfaction and low quality of the service. Associative stigma was not uncommon among mental health professionals and was associated with sociodemographic factors and poorer job satisfaction.

**Conclusion:** Associative stigma has received comparatively little attention from empirical researchers. Therefore, continued efforts to address this understudied, yet important, construct in conjunction with future efforts to dispel misconceptions related to mental illnesses are needed.

**Key Words:** *Mental health, Nurses, Psychiatric, Stigma*

**Knowledge and practice on intake of folic acid supplements among pregnant women attending the antenatal clinic of Colombo East Base Hospital, Sri Lanka**

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**Introduction:** Maternal folic acid supplementation (FAS) during the periconceptional period significantly reduces the risk of neural tube defects. Therefore, knowledge and practice regarding the usage of FAS and consumption of dietary folate (DF) preconceptionally is important. The aim of this study was to assess knowledge and practice regarding the usage of FAS preconceptionally and during the pregnancy and consumption of DF.

**Methods:** A descriptive, cross-sectional study was conducted. An interviewer-administered, validated questionnaire was used to collect information about socio-demographic factors, details on pregnancy, knowledge, and practice of the FAS and DF. Data collection was done among a conveniently-selected 323 pregnant mothers attending the antenatal clinic of Colombo East Base Hospital. Collected data were analyzed descriptively.

**Results and Discussion:** Among 323 participants, most of the participants were unemployed 75.6% (n=232) and 24.4% (n=75) were employed; 41.7% (n=128) had “good knowledge”; 52.1% (n=160) had good knowledge regarding DF and 96.9% (n=288) knew FAS can protect their baby against some medical conditions. Half of the respondents (50.1%, n=149) knew that FAS should be taken before pregnancy and should be continued for the first trimester of pregnancy. Meanwhile, 60.6% (n=186) had “good practice”, 33.6% (n=103) “moderate practice” and 5.9% (n=18) “poor practice” towards the FAS and DF. Nearly two-third of the respondents (61.2%) planned their pregnancy, but only a half (50.5%) practiced pre-conception FAS. Participants have got knowledge on FAS mainly from midwives and nurses.

**Conclusion:** Even though most participants had poor knowledge, they had a comparatively good practice on the usage of FAS. Education and age were significantly influenced on practice and occupation was associated with knowledge of FAS. Midwives and nurses play a big role in the dissemination of knowledge.

**Key Words:** *Folic acid, Knowledge, Practice, Pregnant mothers, Dietary folate*

**Knowledge and attitude regarding mental illnesses among family members of mentally ill patients admitted to the National Institute of Mental Health (NIMH)**

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**Introduction:** Mental illness can result in a reduction of the living standards of the family members of those patients. This is because there is a social distance between the patient and the family. The mechanisms of dealing with mentally ill patients vary from one family to another for a variety of reasons. The humiliation of mental illness increases psychosocial challenges and is a problem that affects not only the patient but the family as a whole. This study aims to assess the knowledge and attitude regarding mental illnesses among the family members of mentally ill patients at the NIMH.

**Methods:** A descriptive, cross-sectional study was conducted among a conveniently-selected 100 family members of mentally ill patients admitted to NIMH. The data was collected using a structured questionnaire that was interviewer-administered to all consented respondents. The collected data was analyzed by using MS Excel.

**Results and Discussion:** The majority of the respondents were males (70%). When considering the knowledge, the majority of the respondents (85%) had some knowledge regarding mental illnesses. When considering the attitudes among the respondents, most of the respondents (90%) agreed that they should show compassion towards mentally ill patients. The majority of the participants (60%) were willing to have a mentally ill person as a friend whereas 20% were probably willing.

**Conclusion:** The research results show that many people do not like to brand patients as mentally ill. Working and associating with them as friends and neighbors were not considered a problem. It also shows that the knowledge and attitudes regarding mental illnesses among the family members of mentally ill patients were significantly good.

**Key Words:** *Mental illness, Family members, Knowledge, Attitude*

**Study on identifying the factors causing delayed presentation of cervical cancer**

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**Introduction:** Cervical cancer is known as the second most common malignancy among women worldwide. In Sri Lanka, cervical cancer accounts for 10% of female cancers and around 70% of those cases are diagnosed only in late stages. The main aim of this research is to identify and explore different factors influencing the late-stage presentation of cervical cancer and identify the socio-cultural factors related to the late presentation of cervical cancer at the National Cancer Institute (NCI), Maharagama Sri Lanka.

**Methods:** A descriptive, cross-sectional study design was used. An interviewer-administered questionnaire was conducted among a conveniently-selected 190 cervical cancer patients attending the clinics and admitted to female wards of the NCI, Maharagama. Data analysis was done via SPSS 23.0 and Excel 2016 packages.

**Results and Discussion:** The majority of the respondents (53.6%, n=102) were 50-60 years of age, 52 (27.4%) had a monthly income of less than Rs. 10,000, 60 respondents (31.6%) had studied up to Ordinary Level only, and 133 (70%) participants were housewives. Over two-thirds of the respondents noted that they were exposed to intercourses when they were 15-20 years old (68.4%, n=130). The majority (71.6%, n=138) lacked knowledge regarding cervical cancer, 128 (67.3%) did not know that Pap smear test is done for free at government hospitals. Most of the respondents lacked much concern regarding the early symptoms of cervical cancer (90.5%, n=172) and agreed that they do not have enough knowledge regarding cervical cancer and preventive methods (82.1%, n=156). All participants agreed that preventive measures should be promoted by the media. The majority believed it was not necessary to attend the clinic if they don't have any condition (45.8%, n=87) and 72 respondents (37.89%) thought bleeding per vagina was a normal condition. Some were shy to expose their vagina for examination to a doctor (21.2%). The delayed diagnosis of cervical cancer could be due to a lack of effective communication of community healthcare workers as most of the participants were not aware of 'Well Women Clinics' in the area or cancer screening and methods, which facilitate prevention and early detection. Fear/dislike or shyness, lack of transport to healthcare centers, lack of family support, getting other treatment such as Ayurveda treatment, and lack of time to attend a clinic with a busy schedule were identified as major barriers for early diagnosis.

**Conclusion:** Delayed diagnosis was identified as a major issue in cervical cancer prevention, treatment, and control. Knowledge about cervical cancer was poor as the majority of the participants had not heard about the disease.

**Key Words:** *Knowledge, Cervical cancer, Early detection, Safety, Prevention*



**Knowledge and practice on substance abuse among teenagers in Sooriara region in Thanamalwila, Sri Lanka**

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**Introduction:** 'Drug abuse' is no longer a current medical diagnosis in either of the most used diagnostic tools in the world, the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM), or the World Health Organization's International Statistical Classification of Diseases. The aim of the study was to identify the knowledge and practice of substance abuse and to evaluate the prevalence of drug abuse among teenagers.

**Methods:** A descriptive, cross-sectional study was carried out among 150 teenagers (aged between 13 to 19 years) in a regional youth club in Sooriyara region using a convenience sampling technique. A pre-tested, self-administered questionnaire was used to collect data. MS Excel and SPSS software were used to analyze the collected data.

**Results and Discussion:** Majority (62%) of the participants were from the age range of 16-19 years. According to the results, the percentage of substance/drugs abuse (85%) was more than non-substance/drugs abusers (15%). Any female substance/drug abuse was not found. The study aimed at five main substances. Their use/abuse among the participants was as follows: cannabis (74%), alcohol (59%), cigarettes (26%), and other substances were painkillers and cough syrup. Also, teenagers who did not use drugs said that their friends do use them. Therefore, the reason for the drug addiction of many teenagers could be the addictions to substances/drugs of their peers and friends.

**Conclusion:** Teenagers' knowledge about drugs/substance abuse was unsatisfactory. Steps should be taken to prevent drug abuse since teenagers are at a higher risk of addiction to drugs.

**Key Words:** *Abuse, Drug, Knowledge, Practice, Teenagers*

**Study on identifying the factors causing nursing-related barriers to addressing sexual health issues in primary healthcare settings in Sri Lanka**

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**Introduction:** Sexuality assessment and counselling are part of the nurse's professional role, but only a few nurses integrate this knowledge into practice. There is evidence that health professionals do not discuss sexual health-related issues in consultations as often as patients would like. Although primary care has been identified as the preferred place to seek treatment for sexual health concerns, little is known either of the factors that prevent physicians and nurses from initiating such discussions or how they feel communication in this area could be improved. The aim of this study was to assess the factors causing nursing-related barriers to addressing sexual health issues in primary healthcare settings in Sri Lanka.

**Methods:** This was a descriptive, cross-sectional study. Data was collected through a self-administered questionnaire distributed among a conveniently-selected 100 undergraduate nurses studying at a private institute in the Welisara area. The questionnaire consisted of socio-demographic data and details about knowledge and attitudes among nurses towards nursing barriers, gaps, and challenges to address in sexual health in primary care. Both descriptive and nonparametric analytical tools were used to compare the dataset.

**Results and Discussion:** Results revealed that parametric analysis of the study has depicted a significant correlation between certain demographic factors and the total awareness of the nurses on discussing sexual health issues ( $<0.05$ ). The result of the study revealed that nurses accounted for their reluctance in discussing sexual health issues of the patients in their treatments; however, the degree of reluctance shows a significant difference with three factors.

**Conclusion:** Sexuality assessment and counselling are known as parts of the nurse's professional role. In this study, it was revealed that only a few nurses have integrated this concept into practice. The findings of the study suggested that nursing education could assist nurses to develop confidence and comfort in dealing with patient sexuality. However, with the results, it is suspected that this situation will be changed over generations. However, it is recommended that curricula of nursing education should be updated and innovative to diminish social and religious barriers of nurses, which will allow the nurses to think with an open mind on these kinds of issues.

**Key Words:** *Barriers, Knowledge, Sexuality, Primary care*

**Knowledge and practice towards foot care among chronic diabetic patients in the Wound Care Unit in Wijaya Kumaratunga Memorial Hospital, Sri Lanka**

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**Introduction:** Diabetes mellitus is a highly prevalent, non-communicable chronic disease that involves multiple organs and is the main cause of morbidity and mortality worldwide. Some of the complications are cardiovascular diseases, neuropathy, retinopathy, nephropathy, and diabetic foot ulcers. Two types of diabetes can be identified as type-1 diabetes and type-2 diabetes. Many patients with type-2 diabetes have risk factors for diabetic foot diseases such as diabetic peripheral neuropathy and diabetic foot ulcers. Diabetes cannot be completely cured; however, the patients can overcome such complications through prevention and control. For that, they should have good knowledge and practice of foot care. This study aims to assess the knowledge and practice towards foot care among patients with chronic diabetic Mellitus attending the Wound Care Unit in Seeduwa Wijaya Kumaratunga Memorial Hospital.

**Methods:** Descriptive, cross-sectional study design was applied and data collection was done using a well-structured, self-administered questionnaire. The questionnaire consisted of 36 questions including questions on demographic characteristics of a patients' knowledge and practice of foot care. The study consisted of 100 participants which included diabetic patients who were above 30 years with foot ulcers and chronic wounds, who were conveniently selected from the Wound Care Unit of Wijaya Kumaratunga hospital. Data were descriptively analyzed using the software STATA version 12.

**Results and Discussion:** A total of 100 participants were included in the study. The majority (76%) had a good level of knowledge regarding the condition of diabetic mellitus; however, some participants had poor knowledge on preventive methods. There was no significant association between demographics and knowledge while some demographics had a relationship with practice. Only (48%) had practiced foot care. Level of education had no significant influence on knowledge and practice ( $p > 0.05$ ).

**Conclusion:** The knowledge of patients with diabetes regarding foot care was good while their self-practice was poor. To improve the foot care knowledge furthermore and self-care practice of patients, health care providers need to support patients through educational programs and specifically appropriate training for both patient and their families. Patients and their families should be encouraged about the practice of foot care.

**Key Words:** *Diabetes mellitus, Foot care, Knowledge, Practice*

**Quality of life and level of stress among undergraduate nurses in a private nursing institution in Sri Lanka**

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**Introduction:** Quality of life (QOL) is defined as an individual's understanding of their place in life in the context of the culture and value system into which they are born, as well as their objectives, opinions, standards, and concerns. Then it's easy to comprehend how numerous circumstances, including tension, can reduce QOL. Stress is an unavoidable element of human life. Nonstop stress can be a great strength in terms of achieving objectives, but it can also be a murderer in terms of performance. During their college years, undergraduate nurses are subjected to a great deal of stress, which can lead to physical and mental health issues as well as poor academic performance. However, there is a scarcity of data on stress, anxiety, and depression in the Sri Lankan community. This study aimed to assess the quality of life and level of stress among undergraduate nurses.

**Methods:** A descriptive, cross-sectional study was conducted among undergraduate nurses. A sample of 100 nurses was conveniently chosen from a higher-education institution. Data was collected using a self-administered questionnaire and analyzed using descriptive and analytical statistics.

**Results and Discussion:** According to the results of the study, the undergraduate nurses in the ages ranging from 25 to 35 showed a reduced quality of life. Most of the respondents were found to be emotionally depressed and their duration of happiness was limited and they were nervous most of the time. Most of the respondents said time spent on social activities was limited. According to the results, most of the respondents have noted that the health status of the participants about one year ago was somewhat better (better now - 1%, same - 23%, worse now - 76%). Considering the limitation of activities, the majority noted that they didn't do any vigorous activities.

**Conclusion:** According to the study, the majority of the respondents claimed that their health had deteriorated since last year, that their daily activities had been reduced, and that they were emotionally depressed. Their happiness was fleeting, and they were anxious the majority of the time. The majority of the respondents stated that their time spent on social activities was limited. In order to alleviate the stress and improve quality of life, increasing the number of vacations and arranging recreational trips, encouraging people to participate in sport and hobbies, and encouraging them to manage their time can be done.

**Key Words:** *Quality of life, Stress, Undergraduate nurses, Happiness, Daily activities*

**Prevalence of stress and adverse psychological effects of overwork among nurses**

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**Introduction:** Stress is an inevitable part of human life. It can be said as it can be a boon which is necessary as well it is a hurdle. But everyone can agree that too much of it will affect health in a negative way and can be counterproductive. Therefore, identification and managing stress with effective coping strategies are important. The aim of this study was to find out the reasons and perceptions of stress and adverse effects among registered nurses.

**Methods:** A descriptive, cross-sectional study was conducted among 166 registered nurses from Indira Gandhi Memorial Hospital, in the Maldives, who had been working for at least 2 years through a random sampling method. Data was collected using a pre-tested questionnaire including the Expanded Nursing Stress Scale (ENSS).

**Results and Discussion:** The majority of the participants were females (93.4%) with the age range of 18-24 (31.3%) and 25-29 (30.1%) years. The respondents reported that criticism whilst dealing with the administration and supervisors was the most stressful factor. A higher percentage of respondents (83.7%) accepted that there was a distinct lack of support by the supervisors. Many of the nurses (30.1%) had felt that being blamed for anything that goes wrong is a stressful experience and the protocols of dealing with abusive patients were reliable and the least stressful. The majority of the respondents were stressed about a physician not being in a situation of emergency and feeling inadequately trained to act in such an emergency. The concepts of the situations that nurses face were work overload, uncertainty concerning patients' treatment, dealing with patients and their families, inadequate emotional preparedness, conflict with supervisors and physicians, and discrimination.

**Conclusion:** The study suggests that most, if not all, of the nurses who had been working in the institution, had been exposed to stressful situations in their daily work routine. It is required that the organizations identify the major causes of increased stress levels of the staff and make necessary alterations to make it more comfortable to the workers, which would also work in the favor of improved patient care.

**Key Words:** *Criticism, Nurses, Overwork, Psychological, Stress*

**Knowledge and practice on foot care among diabetic patients in Indira Gandhi Memorial Hospital (IGMH) in Male, Maldives**

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**Introduction:** Foot ulcers are common in people with diabetes, especially those with problems in the nerves and blood supply to their legs. People with ulcers due to diabetes sometimes need an amputation. Foot complications from diabetes are one of the main causes of amputation. Aim of this study was to assess the knowledge and practices of foot care among diabetic patients attending to IGMH as inpatients regarding foot care.

**Methods:** A descriptive, cross-sectional study design was used. Information was obtained by a self-administered questionnaire among a conveniently-selected, 100 diabetic patients admitted to IGMH with foot ulcers. The data analysis was done descriptively using Microsoft Excel.

**Results and Discussion:** Results of the study shows that 53% knew diabetic mellitus can increase the risk of foot ulcers, whereas 47% of people didn't know. Over half of the respondents (57%) knew the correct range for fasting blood glucose, whereas 57% believed if they develop foot infection they will develop foot ulcers and 43% disagreed. In addition to that, 58% knew that diabetes develops a lack of sensation in their feet, out of which 28% of the people agreed it was due to reduced blood flow to the foot, whereas 72% disagreed. Over one-third of the respondents (37%) knew that amputation is a complication of foot ulcers and the other 63% were not aware of the same. Only 38% knew that blood glucose control could reduce the risk of nerve damage in their feet. Only 15% said they obtained knowledge and practice regarding diabetic foot care through health education from the clinic.

**Conclusion:** The participants had poor knowledge and practice regarding diabetic foot care. The complication of diabetic foot was evident mostly in aged participants and out of them among males more than females. It is important to activate the role of health education to everyone who has direct contact with the patients.

**Key Words:** *Diabetes, Amputation, Foot, Complication, Knowledge*

**Awareness, attitudes, and practices among young adults regarding consuming caffeinated energy drinks in Tha. Vilufushi, Maldives**

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**Introduction:** Young adults consume caffeinated drinks on a daily basis for their contentment. However, this habit could lead to life-threatening problems as it comes with lots of health issues. The vulnerability to caffeine intoxication in children and adolescents who are not regular caffeine users may be significantly elevated due to a lack of pharmacological tolerance. Consuming caffeinated energy drinks is a growing life-threatening issue among many Maldivian young adults. The aim of this study was to assess the level of knowledge, attitude, and practice among young adults regarding consuming caffeinated energy drinks in Tha. Vilufushi, Maldives.

**Methods:** A descriptive, cross-sectional study was conducted according to a convenience sampling method among 100 participants who were between 20 to 35 years, from Tha. Vilufushi area. Data was collected using a self-administered questionnaire consisting of a total of 18 questions and SPSS software was used for data analysis.

**Results and Discussion:** The majority of the participants (70%) were in the age group of 20-35 years. Among young adults, 37% of people have said that the main reason for consuming caffeinated energy drinks is to enjoy the taste and 30% of them have consumed it without any specific reason. According to the data, 38% of young adults considered headache as the health issue noticed after consuming caffeinated energy drinks. Many (63%) of the participants were regular drinkers. The majority (56%) of the participants have never tried to avoid intake of caffeinated energy drinks while 72% of them have said that they could not stay 48-72 hours without consuming caffeinated energy drinks. Consuming caffeinated energy drinks has become a trend among young adults in the Maldives and all over the world.

**Conclusion:** The participants have some awareness about the health issues regarding consuming caffeinated energy drinks. There have to be further awareness campaigns to improve the level of awareness among the public on the usage of caffeinated drinks and the associated risk factors.

**Key Words:** *Attitude, Energy drinks, Knowledge, Practices, Young adults*

**A study on assessing the awareness of GDM and associated risk factors among females in the Maldives**

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**Introduction:** GDM (gestational diabetes mellitus) is a disorder in which the placenta produces a hormone that hinders the body from adequately utilizing insulin. Instead of being absorbed by the cells, glucose builds up in the blood. Unlike type-I diabetes, gestational diabetes is caused by additional hormones released during pregnancy that can reduce the effectiveness of insulin, a condition known as insulin resistance. The symptoms of gestational diabetes go away when the baby is born. Recently, GDM has appeared to be a growing diagnostic and epidemiological concern. The main aim of this research is to assess awareness of GDM among pregnant women aged between 18-54 years in the Maldives.

**Methods:** A descriptive, cross-sectional study design was used. The self-administered online questionnaire was shared among a conveniently-selected sample of 100 pregnant females aged between 18-54 years in the Maldives. Data analysis was done descriptively via SPSS 19.

**Results and Discussion:** The majority of the respondents (n=52) were in the age group of 26-30 years. Half of the respondents (50%) were married, 15% had completed a diploma, and 15% were not working. Out of the respondents, 65% had a family history of GDM, and 40% were diagnosed with GDM. The population diagnosed with GDM had more knowledge (62.5%, n=25) than the general population about GDM, who had received information from a health professional. Three fourth of the respondents (75%) have heard about GDM. Some of the respondents (17%) had severe psychological disturbances associated with mood swings. A minority noted that they consume junk food daily (12%), 19% would usually drink around 6 glasses of water per day, 55% said exercise is the first choice of treatment for controlling GDM. Over two-thirds (68%) have not taken any treatment, 72% mentioned they did not have diabetes during pregnancy. The knowledge of the signs and complications of GDM seems to be adequate.

**Conclusion:** Pregnant women need to be educated and should be provided relevant information for the prevention of GDM. This study concludes that the level of information on common symptoms, potential complications, and treatment of GDM is inadequate.

**Key Words:** *Knowledge, GDM, Awareness, Safety, Prevention*



## PP 041

### **A study on knowledge and practices of oral hygiene among teenagers in Hirilandhoo School, Maldives**

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**Introduction:** Oral hygiene is basic for the prosperity of an individual. Be that as it may, absence of learning and negative disposition may prompt absence of or poor routine with regards to oral hygiene. Dental care is considered a major health problem as up to 90% of school children worldwide have dental problems. The possible negative effects of oral hygiene include poor school performance, poor overall health, low self-esteem, school absenteeism, tooth decay, other oral health problems, and financial losses for parents. The main objective of this research is to assess the knowledge and practices on oral hygiene among teenagers in Hirilandhoo School.

**Methods:** A descriptive, cross-sectional, school-based study was conducted. Since Hirilandhoo School is a small school with a population of 50 in secondary grades, all the students were included in the research. A self-administered questionnaire was used to collect data. The gathered data were descriptively analyzed using Microsoft Excel.

**Results and Discussion:** Based on the data collected from 48 respondents (response rate 96%), 54.2% (n=26) were 15 or 16 years old or above while 45.8% (n=22) were 13 or 14 years old. Among the respondents, 62.5% (n=30) were male students. When the students were asked how often they brushed their teeth, 39.6% (n=19) students have responded saying they brush their teeth twice a day while 25% (n=12) of the students said only once a day whereas 20.8% (n=10) students brushed their teeth only when they are dirty or when it is necessary, while 14.6% (n=7) students brushed their teeth more than 3 times a day. When respondents were asked regarding when they should visit a dentist in order to check their knowledge on oral hygiene, 52.1% (n=25) mentioned that they should visit a dentist when they are in pain, while 20.8% (n=10) mentioned that they have absolutely no idea why they should visit a dentist and 18.8% (n=9) mentioned that they have to visit a dentist at least once a year. Some of the respondents also mentioned that they should visit a dentist once every 3 months or when there is dirt or tartar on their teeth. This means that the majority of the respondents agree on visiting the dentist when the problem arises rather than preventing it.

**Conclusion:** The majority of the students have adequate knowledge about oral hygiene and its consequences. However, there are a few areas such as flossing which are new to all the students. The students require more awareness and it is advisable to conduct awareness workshops on oral hygiene practices on a regular basis.

**Key Words:** *Oral hygiene, Students, Dentists, Knowledge, Practice*

## PP 042

### **A study to assess factors leading to cesarean section among pregnant mothers in the Maldives**

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**Introduction:** Cesarean section (CS) has been increasing over the years and it has become one of the rising issues throughout the world. According to the literature, several factors could lead to an election of a CS. This paper assesses the specific indications contributing to the rise in CS rates among pregnant mothers in the Maldives. The objectives of the study were to identify the prevalence of the contributing factors that lead to CS and to identify the modifiable indications that lead to CS in the Maldives.

**Methods:** A descriptive, cross-sectional study approach was used to collect data from a conveniently-selected sample of 100 pregnant mothers admitted to Dhaal Atoll hospital. Data were collected via a self-administered questionnaire distributed as a Google Form. As documentary data, records from the past two years were collected to access retrospective data. Obtained data were descriptively analyzed using Microsoft Excel software.

**Results and Discussion:** This study revealed that a second or a third CS was done mainly because they have already done a previous CS. The majority of the respondents (92%) had not any complication during CS, while only 8% had. The majority of the participants (96%) did their CS after 37 weeks of gestation. Fetal distress was identified as the most common fetal indication for CS and 81% had no complications to the baby during CS. Many of the pregnant women had no medical condition during their pregnancy (93%). Out of all the respondents, 94% did not request to go for a CS.

**Conclusion:** Most of the respondents were aware of the fetal indications. Good communication is needed to overcome those problems during the antenatal period; patients should be aware of the complications regarding maternal, fetal, and others by healthcare professionals.

**Key Words:** *Cesarean section, Fetal indications, Non-obstetric, Obstetric, Pregnant*

**Assessing the knowledge and practices of exclusive breastfeeding among mothers visiting postnatal clinics at Gan Regional Hospital, Maldives**

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**Introduction:** Breastfeeding is a basic right of a child. Breastmilk consists of basic nutrients such as proteins, vitamins, and carbohydrates that give all the nutrients they need for healthy development. Exclusive breastfeeding is defined as giving no other food or drink, including water except breast milk. Breastmilk consists of 88% water, enough to satisfy a baby's thirst. Many mothers who return to work abandon breastfeeding partially or completely as they do not have sufficient time or place to breastfeed. Therefore, this research will assess knowledge and practices of exclusive breastfeeding among mothers visiting postnatal clinics on the island of Gan. The study will also assess the association between the educational level of mothers and their practice in exclusive breastfeeding.

**Methods:** A descriptive, cross-sectional survey among a conveniently-selected 100 lactating mothers with children of less than one year of age attending the Gan Regional hospital, the Maldives from May 2020 to August 2020. Collected data were descriptively analyzed using SPSS software.

**Results and Discussion:** The average age of the respondents was 25 years and the highest percentage was in the 36 to 45 years age group (40%). The majority of the participants were married (95%) whereas 5% were divorced. Most mothers' occupations were government jobs (30%), 25% of the participants were housewives and 20% of the participants were self-employed. The highest percentages (27%) of the respondents had finished secondary education and only 11% had completed a degree or above. The majority of the respondents knew that the ideal time of initiation of breastfeeding was within one hour of birth and most of the respondents knew the correct definition of exclusive breastfeeding, giving the baby only breast milk without water or other foods for the first six months of life, as recommended by WHO. In this study, maternal age, level of education, and sector of work were not significantly associated with overall knowledge of breastfeeding ( $p < 0.05$ ).

**Conclusion:** The study concludes that mothers were having adequate knowledge and proper practice of breastfeeding. There is a need to impart knowledge and provide proper guidance on the practice of breastfeeding to prevent infant morbidity. The healthcare providers should provide breastfeeding education to all women during their antenatal follow-up visits, especially women with low educational qualifications and no past breastfeeding experience.

**Key Words:** *Breastfeeding, Awareness, Knowledge, Practice, Maldives*

**Assessing the perceived stress and associated factors among pregnant women in a selected grama niladhari division in Sri Lanka**

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**Introduction:** Stress is a complex pattern of human physiology's response to a demanding or pressured circumstance. It is the way we perceive and respond to risks and challenges in our environment. Even though pregnancy is frequently regarded as a joyous occasion, it is also a stressful period in a woman's life that necessitates tremendous emotional adjustment. This research will assess the perceived stress and associated factors among pregnant women in the Vilegoda Grama Niladhari division- Eheliyagoda, Sri Lanka.

**Methods:** This study was carried out as a descriptive, cross-sectional study conducted by obtaining answers to a questionnaire from eighty mothers selected from convenient sampling. Likert scale questions, tick box questions, and yes/no questions were used in a self-administered questionnaire. The study was carried out in Vilegoda Grama Niladhari division- Eheliyagoda, Sri Lanka Data analysis was done using Ms. Excel software.

**Results:** Over one-third of the study participants were between the ages of 18-24 (38.7%, n=31), 30% (n=24) of the mothers had a significant medical history. There was a higher stress level among some pregnant mothers (30%). It was also shown that stress-related variables are influenced by lifestyle modifications, social factors, and personal issues. The stress levels generated by lifestyle changes are the most important issue here.

**Conclusion:** Pregnant women experience varying amounts of stress in their families, workplaces, and society. Although society's level of stress cannot be controlled, pregnant mothers should be aware of the stress levels that can be produced by personal and lifestyle changes, as this can have an impact on the unborn child's and mother's lives.

**Key Words:** *Pregnant, Stress, Perceived, Associated factors*

**Study of social media usage for academic purposes among the nursing students in a leading nurse's training school in Sri Lanka**

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**Introduction:** The growing dimension of the use of social media among the youth of today cannot be lessened or disregarded. The use of technology such as the internet, social media is one of the most important factors that can influence the educational performance of students positively or adversely. The main aim of this research is to assess social media usage for academics among the nursing students in a leading nurses training School in Sri Lanka.

**Methods:** A cross-sectional descriptive study design and simple random sampling technique were used. The interviewer-administered a close-ended questionnaire that was shared among 80 first-year students in a nursing training school in Ratnapura. Data analysis was done via Microsoft Excel.

**Results and Discussion:** 96% (n= 76.8) were male. 50% (n=40) were aged 18-20. 83% (n= 66.4) were Buddhists. 51% (n=40.8) used social media to stay informed about current events. A mean value of 3.34% (n= 2.6) used social media to update their academic knowledge. 21% (n= 16.8) spent less than 2 hours on social media. 19% (n= 15.2) have been using this social media for less than 6 months. WhatsApp, YouTube, and Facebook were used by more than 90% (n= 72) of students. Nursing students use a significant amount of social media platforms for their academic work. Students use social media platforms to connect with others whenever possible and enjoy the benefits.

**Conclusion:** The use of social media by nursing students for academic work is at a significant level, and it seems to be a growing trend. Although there are positive aspects of the usage of social media for academic purposes, some time management issues have arisen among students, regarding which more steps should be taken.

**Key Words:** *Nursing students, Social media, Academic, Training*

**Prevalence and associated factors of anemia among pregnant mothers at MOH Poonery**

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**Introduction:** Anemia is a condition in which a person has a shortage of healthy red blood cells to carry enough oxygen to the body's tissues. In a routine blood test, anemia is reported to have low hemoglobin or hematocrit levels. Hemoglobin is the main protein in red blood cells which carries oxygen around the body. Having low hemoglobin can make a person feel tired and weak. With regards to this problem caused by anemia during pregnancy, more research is required to identify the risk factors to come up with appropriate strategies for its prevention. Therefore, this study aims to determine the prevalence and factors associated with anemia among pregnant women attending the antenatal clinic (ANC) at MOH Poonery.

**Methods:** A descriptive, cross-sectional study was conducted from 10th April to 10th July 2021, among 200 pregnant women who attended antenatal clinics at MOH Poonery. A systematic sampling method was used to select the study participants. The data was collected using a pre-tested, semi-structured questionnaire through interviews and an assessment of anthropometric and hemoglobin measurements was done. The descriptive analysis method was used to analyze the collected data.

**Results and Discussion:** The present study revealed that the prevalence of anemia among pregnant women was 65.5% which is a severe public health problem and non-anemic with 34.5%. The occurrence of anemia was higher among women with two or more children compared to prim gravida and women with only one child. Women in their second trimester were slightly anemic compared to other trimesters. Pregnant women who did not iron and folic acid supplementation (IFAS) during the current pregnancy were more significantly anemic compared to those who had taken IFAS.

**Conclusion:** Anemia during pregnancy is a result of many factors, including late pregnancy, lack of formal employment and economic autonomy, poor nutritional status and late ANC booking and not taking IFAS during the current pregnancy. Therefore, interventions for the prevention and control of anemia should be strengthened by encouraging early ANC booking. Early ANC booking provides opportunities for early detection and treatment of any health problem that can arise during pregnancy and initiation of IFAS as recommended.

**Key Words:** *Prevalence, Associated factors, Risk factors, Anemia, Pregnancy*

**Assessing the correlation between emotional intelligence and job satisfaction among nursing officers in the general hospital, Monaragala**

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**Introduction:** Job Satisfaction (JS) is a measurement of one's contentment regarding his or her job. Emotional Intelligence (EI) is the capability of understanding, using, and managing an individual's emotions. Both EI and job satisfaction have significant impacts on any health care setting in providing quality care. The main aim of this study is to find out the relationship between EI and JS among the nursing officers in General Hospital, Monaragala.

**Methods:** A descriptive cross-sectional study was conducted among 205 nursing officers working in General Hospital, Monaragala via a convenient sampling method. A pretested self-administered questionnaire was given to collect the demographic data. In order to find out the correlations and associations, Pearson's Chi-Square test was used. Data collected from the research will be analyzed via Excel/SPSS.

**Results and Discussion:** 200 out of 205 participants had given the reason for selecting nursing (55.5%), 25.5% as financial benefits and 4.5% for international opportunities, and 14.5% for other reasons. Three of the four EI dimensions got good EI while one dimension has got moderate EI. There was a significant correlation between emotional intelligence and monthly income. However, no correlations were found between EI and variables such as age, working experience, and total duty shifts.

**Conclusion:** The findings showed a significant weak positive correlation between emotional intelligence and job satisfaction among the nursing officers in General Hospital, Monaragala. It is recommended to implement training programs and curriculum revisions to improve the EI of the nursing officers and to take necessary actions to enhance JS to receive productive and efficient nursing care from them.

**Key Words:** *Emotional intelligence, Job satisfaction, Nursing*

**A study on knowledge and practices of antenatal care among pregnant women attending antenatal clinic of Wahara, Kurunegala**

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**Introduction:** Antenatal care aims to monitor the status of health of the mother and her baby to diagnose any pregnancy-related problems early. The main aim of this research is to assess the knowledge and practices of antenatal mothers regarding antenatal care provided by health care workers in the antenatal clinic of Wahara, Kurunegala.

**Methods:** A descriptive, cross-sectional study design and convenience sampling were used. The self-administered online questionnaire was shared among 100 antenatal mothers who are visiting an antenatal clinic in Kurunegala MOH in Wahara area. Women who are not willing to participate in the study or/and were not available at the time of data collection were excluded. Data analysis was done via Microsoft Excel 2010 software.

**Results and Discussion:** Most of the mothers (42%) belonged to the 30-40 age category. Most of the mothers (62%) have got married between the ages of 20 – 30. 26% had 2 children including their current pregnancy. The majority (78%) had low knowledge regarding antenatal care. 73% were not following adequate practice in antenatal care. only 2% of the mothers had adequate practices. A significant association was found between the age of the mother and the age at marriage of mothers. Especially teenage mothers were presented with the majority of deficiency in knowledge and the practice regarding antenatal care. A highly positive correlation was observed between knowledge and practice, indicating that knowledge and practices depend upon each other.

**Conclusion:** Among 100 antenatal mothers, only a negligible percentage of the mothers have high knowledge and practices on antenatal care. Age appeared to be a significant factor affecting these deficiencies.

**Key Words:** *Antenatal care, Antenatal clinics, Knowledge, Practice, Age*



**Knowledge and practices on varicose veins among patients attending the surgical clinic at District General Hospital - Hambantota, Sri Lanka**

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**Introduction:** The World Health Organization (WHO) estimates that about 25% of adults around the world have some type of venous disorder in their legs. More than 35 million people in Asian countries suffer from varicose veins. Prevention of this disease is easier than curing varicose veins which are just a part of aging. Therefore, it is necessary to have satisfactory knowledge, attitudes, and practices regarding varicose veins and prevention. The study aimed to assess the level of knowledge and practices regarding varicose vein disease of patients in a surgical clinic and the association between knowledge with different variables.

**Methods:** A hospital-based descriptive cross-sectional study was carried out among 200 patients selected from the convenience sampling method who were attending surgical clinics in District General Hospital - Hambantota. Data was collected using a self-developed pretested interviewer-administered questionnaire. Obtained data were analyzed using SPSS software.

**Results and Discussion:** Majority (59%) of the participants were females and many of the patients (34%) have experienced varicose in the time duration of 5 to 10 years. The mean knowledge score was 34.31 (SD = 10.67) and (58.2%) participants were in satisfactory knowledge level and 41.3% were in unsatisfactory knowledge level. Practices regarding varicose vein disease, 58.2% of participants had poor practices and 41.3% of them had good practices. Although 70.1% of patients had applied stocking for varicose disease only 44.1% of participants had followed the correct method of applying to stock. Considering their attitudes regarding varicose veins, the majority did not have positive attitudes. Most participants did not agree with a permanent cure. Also, some were worried and fearful of a lifetime treatment schedule and the majority believed that treatment methods were painful.

**Conclusion:** The study finding indicated that overall knowledge regarding varicose was not highly satisfactory among patients. Also, practices regarding varicose veins were also poor in the sample. The findings point out that patients should be educated well regarding varicose veins, risk factors and preventive practices, and the importance of its prevention.

**Key Words:** *Varicose veins, Knowledge, Patients, Practices*

**A study on the costs incurred by patients attending diabetes clinics, Colombo North Teaching Hospital during the Covid-19 pandemic**

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**Introduction:** The International Diabetes Federation showed that many middle- and low-income countries have more people under the age of 60 with diabetes, compared to the world average. The main objective of this research is to describe the costs incurred by patients attending diabetes clinics at Colombo North Teaching Hospital (CNTH) and their socio-economic status.

**Methods:** A descriptive, cross-sectional research design was used. All consenting patients with regular clinic attendance at the CNTH were included in the study with the exclusion criteria being non-consenting patients. A total of conveniently-selected 384 patients took part in the study. The gathered data were then descriptively analyzed using Microsoft Excel.

**Results and Discussion:** The results showed that 63.0% (n=242) of the total population was diagnosed with stage-II diabetes and needed continuous treatment and 36.9% (n=142) of the total population was in their first diabetic stage. Analyzing the factors indicate that 46.0% of the medical costs were incurred during the clinical day, 38.0% (n=146) for the medicine, 4.1% (n=16) for additional tests based on the recommendation given by the doctors, and 12.2% (n=47) for transportation cost. It was also found out that 36.9% (n=142) of the total population spend between 3,000 and 5,000 LKR and 15.1% (n=58) of the total population spend between 5,000 and 8,000 LKR, and 14.0% (n=54) spend 8000 LKR or more on the clinic day.

**Conclusion:** The study found that mostly the middle-income citizens were facing issues with regard to finances and this disease has impacted the lifestyle of the patients. To reduce the financial burden of those who have diabetes, the government has to take steps to provide cost-effective healthcare for everyone.

**Key Words:** *Diabetes, Patients, Income, Expenses, Socio-economic factors*

## PP 051

### **Most common injuries among male rugby players of selected sports clubs in Colombo district, Sri Lanka**

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**Introduction:** Rugby is a physically demanding, contact sport that consists of a team and delivers significant social and health benefits. This game is played by two teams, each consisting of fifteen players. Each team can pass, carry or kick the ball to the end zone to score. Throwing, catching, kicking, accelerating, maximal velocity, agility, tackling, wrestling and rucking/mauling, are all performed in high frequency on the field. Therefore, rugby is a game that is more susceptible to injuries. However, only a few studies can be found in Sri Lanka on rugby injuries. The main objective of this study is to identify the prevalence and pattern of the most common injuries among male rugby players in selected sports clubs in Colombo District, Sri Lanka.

**Methods:** For this descriptive cross-sectional study, five sports clubs have been selected by randomized control method. 146 players were selected according to inclusion criteria. Interviewer administered questionnaire was used. Statistical analysis was done by using SPSS version 20.

**Results and Discussion:** 92 injuries were reported by 71 players, out of 146 participants. The injury prevalence of the players during the last 6 months duration was 62.58%. There were 60.9% lower limb injuries, 27.2% of upper limb injuries, 7.6% of head and neck injuries and 4.3% back injuries reported. The majority of players (62.8%) mentioned that they wear supportive sleeves. The mean BMI value of the injured group was 28.01 KG/m<sup>2</sup> (SD=4.51867), while the mean BMI of the non-injured players was 30.30 Kg/m<sup>2</sup> (SD=4.51754). The independent-sample t-test was associated with a statistically significant p-value (p=0.002).

**Conclusion:** As per the results of the study, the prevalence of lower limb injuries was higher than upper limb, back and head and neck injuries. Strains were the commonest injury type. It was identified that players who have a lower BMI have a higher risk for being injured in rugby use of the protective equipment have to be improved effectively,

**Key Words:** *Rugby, Injury, Strains, BMI, Protective equipment*

**Knowledge, attitudes and practices regarding fast food habits among teenagers in Haldummulla national college, Badulla, Sri Lanka**

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**Introduction:** Nutritional level is a pivotal element that contributes towards the health and well-being of individuals and it plays an important role in the lives of teenagers. Nutritional level directly affected on children's health due to their physical and mental growth and their cognitive development. Frequent eating of fast food can increase the risk of weight gain and obesity because of having a high energy density with the presence of high levels of fat and sugar in the meal and a correspondingly low level of fiber and protein.

**Methods:** A quantitative, descriptive study was conducted using a convenient sample method. Data were analyzed using SPSS. Data collected using a monitored and administered questioner which was issued among teenagers in Haldumulla National College Statistical analysis was done using SPSS.

**Results and Discussion:** From the overall total number of 122 students who were randomly selected most of the students are at the age of 15-16 years. Among them, the most of the participants 55% are strongly accepted the fast food cause health problems. 33.60% of participants strongly agreed that the fast food can cause obesity. Most of the students 34.43% are strongly that fast food can cause cancer. 29.50% participants are strongly accepted that fast food can cause heart diseases. Most number of the school student participants (39.34%) believes that they are continuing fast food because of their busy schedule. (24.59%) of the participants think there are more benefits compare to risk by continuing fast food. 22.95% of the participants believe that they have addicted for continuing fast food. 11.47% of the school students are like it a lot even they are aware of health risks of fast food consumption. Only 1.63% students think that healthy foods are expensive/ not prepared at home.

**Conclusion:** Student participant (teenage students) had adequate knowledge regarding food habits. Majority of students' participants believe that they are taking fast food because of their busy schedule, taste and varieties of fast food. Therefore, it is proved that participants have poor attitudes on fast food habits. Not only that, but also, they have poor practices on food habits. Most of them are consuming fast food daily. When they are busy, hungry and bored, it is increasing their persuasion to take fast food. Therefore, the participants have enough knowledge about food habits. But most of them do not have good attitudes and do not follow the good practices on fast food habits.

**Key Words:** *Fast food habits, Knowledge, Attitudes, Practice, Consumption*

**Assessment of knowledge and practices on prevention methods of occupational injuries among undergraduate nurses in a selected healthcare institute in Sri Lanka**

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**Introduction:** Occupational health hazards are recognized as global problems for health care workers and these are common among nursing personnel. Musculoskeletal injuries are the commonest type of occupational injury among staff nurses and while the majority of undergraduate nurses face needle stick injuries, emotional and physical violence. To develop effective programs on prevention methods, it is important to identify knowledge and current practices on preventive methods of occupational injuries.

**Methods:** A descriptive quantitative study was conducted using a multistage random sampling method. A standardized, validated, semi structured questionnaire was used among 100 nurses in a selected health institute. Data were analyzed using SPSS.

**Results and Discussion:** The majority of respondents (85%) were female nurses. The majority of the participants (52%) were reported to face psychological issues, 48%, had mentioned they had needle prick injuries, and 22% had mentioned they had chemical injuries from chemicals during the period that the study was conducted. The mean knowledge score was  $26.7 \pm 7.3$ . The majority of participants (68.1%) had adequate knowledge about occupational health hazards. The level of knowledge was statistically significant with the level of education (OR = 3.47, CI: 2.15-5.59 and p-value 0.00). The mean practice score was  $7.6 \pm 3.1$ . The majority of the participants (74.6%) exhibited poor practice on preventive methods of occupational hazards.

**Conclusion:** As per the results of the study it can be concluded that the majority of the participants had adequate knowledge but poor preventive practice indicating a higher risk of occupational hazards hence training and in-service education, adequate provision of personal protective equipment and establishment of an effective occupational health program for nurses are needed to encourage them to adhere to the good preventive practice.

**Key Words:** *Knowledge, Practice, Prevention, Hazards, Nurses*

**Factors affecting confidence in vaccination among parents in Dhaandhoo, North Huvadhoo atoll, Maldives**

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**Introduction:** The use of vaccines to immunize people and protect them from deadly diseases is one of the world's most powerful tools for health. The World Health Organization considers immunization to be one of the most successful and cost-effective health interventions, preventing two to three million deaths every year. According to the Health Protection Agency of the Maldives, vaccine refusal and vaccine hesitancy cases are surfacing in the Maldives. The objective of this research is to understand the confidence in vaccination among the parents of Dhaandhoo Island.

**Methods:** The study was designed as a qualitative descriptive cross-sectional one. A study was conducted among parents of children who are less than 2 years old. A convenience sample was selected and a structured questionnaire was provided. Data was collected by home visit as a face-to-face interview.

**Results and Discussion:** Data was collected among 30 parents, and all the participants were female. A total of 27 (90%) parents have only one child under the age of two. According to the survey, a majority of 17 (56.67%) parents are unemployed. Of 30 respondents, 27 (90%) said vaccines are given to children to prevent disease and that they build the child's immune system. Half of the parents who participated in this study know what the diseases are that prevent BCG (63.33%) and measles (70%). According to the survey, five (16.67%) parents have delayed giving vaccines to their children, and three (10%) parents have decided not to vaccinate their children.

**Conclusion:** The majority of parents who chose to postpone or avoid having their children vaccinated are concerned about vaccine safety and effectiveness. This includes the fear of side effects that most people have heard from various people; some of them highlighted religious beliefs, what they think or what their community people think; and many of those who delayed or refused to have vaccine suggested that they don't want to expose their child to danger, while others refused because of the contra-indications that may arise from vaccine or vaccination. Knowledge of parents regarding vaccines and vaccination is the major factor that helps to understand why some people refuse vaccination. Therefore, identifying these groups and awareness programs needs to be conducted.

**Key Words:** *Vaccine, Confidence, Side-effects, Safety, Immunity system*

**Level of knowledge, attitude, and practice on early detection of breast cancer among nursing officers studying in a private healthcare institute in Sri Lanka**

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**Introduction:** Breast cancer is the most common cause of death and the most frequently diagnosed cancer among women worldwide. However, it remains a major health problem restricting self-breast examination and breastfeeding of all age groups of women in the community. The self-breast examination is increased to identify and early detection of breast cancer. This study aimed to assess the self-breast examination (SBE) attitudes, practices, and knowledge towards breast cancer among nursing officers studying in a private healthcare institute in Sri Lanka.

**Methods:** A descriptive, cross-sectional study was carried out among 150 nursing officers aged between 20 to 45 years, who were doing their higher studies using a self-administered questionnaire, and the entire process was directed within a profound ethical framework to protect the rights of participants. The questionnaire was pretested for its validity and consistency. Data analysis was executed using the predictive analytics software program.

**Results and Discussion:** The study showed that the majority of participants (94%, n=141) had a high level of knowledge of breast cancer. Findings revealed that the attitude regarding the self-breast examination habit was relatively moderate (47.3%, n=71). In addition, the knowledge regarding self-breast examination was also satisfied (53%, n=80). However, the breast examination habit of the nursing officers was comparatively at a lower level (40%, n=60). The major reason for the discouragement of SBE is lack of time (37%, n=55).

**Conclusion:** According to the study, it was revealed that the SBE habit of the nursing officers was comparatively lower levels of attitude rather than the knowledge regarding breast cancer. School curriculum should be upgraded to prevent breast cancer and the importance of the SBE practices and their benefits for the community.

**Key Words:** *Breast cancer, Examination, Mammography, Palpation, Self-examination*

## PP 056

### Identify the challenges faced by staff nurses supervising student nurses at the clinical setting

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**Introduction:** Clinical teaching for nursing students who are in the clinical setting is an important component of clinical education. Sri Lanka clinical teaching is ensured by clinical nursing staff. Effective clinical teaching is to enhance the quality of nursing practices, and the importance of clinical teaching is to identify the failures of the student and to improve the competencies of the educators are to the students. The aim of the study is to identify the challenges faced by staff nurses when supervising the students in the clinical setting.

**Methods:** A descriptive cross-sectional study was conducted in General Hospital, Kaluthara, and a convenient sampling technique was followed to collect data among 110 participants. A pre-tested, self-administered questionnaire was used as the tool to collect data and descriptive analysis was done using SPSS version 23.

**Results and Discussion:** The majority of nurses were between the 31- 35 years age group. Majority of nurses were female (92.7%, n= 102). All the participants were diploma holders and a few (7.27%, n=8) were degree holders. The study findings indicated the nurses have skills regarding clinical supervision with a mean score of 4.15 and this was the highest score of the study. The second highest mean score on knowledge was (M =4), and the lowest mean score was (M=3.0) and the mean score overall was 3.7. They have a moderate level of challenges in teaching in the clinical setting and presents nurses faced with challenges that are different from rather than those who encountered in the classroom.

**Conclusion:** According to the research findings, the participants of this study have moderate overall challenges. Participants have a high level of knowledge, skills, and moderate level of challenges.

**Key Words:** *Challenges, Clinical setting, Supervision, Staff nurses, Student nurses*



## PP 057

### **A study on perception of nursing as a profession among Advanced Level students in a selected school, Sri Lanka**

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**Introduction:** The attitudes of Advanced Level (A/L) students toward nursing is significant because they provide strategic clues for effective recruiting of the next generation of nurses. The main aim of this research is to assess the perception of nursing as a profession among A/L students in a selected school in Sri Lanka.

**Methods:** A descriptive, cross-sectional study design and simple random sampling was used. The self-administered online questionnaire was shared among 80 students enrolled in Galahitiyawa Central College's A/L biology. Students who study non-bio stream or below A/L were excluded. Data analysis was done via Microsoft Excel.

**Results and Discussion:** Among participants, 57.5% (n=46) were females and 42.5% (n= 34) were males. 14% (n= 11) had 2-3 family members. 12% (n= 10) of them had family members who were involved in nursing. A mean value of 2.9 agrees that nursing is a respectful profession, a well appreciated job (mean of 2.7), an essential profession (mean of 2.9), a great profession (mean of 2.3), a gender equal job (mean of 2.6), high income job (mean of 2.9), a job with high welfare benefits (mean of 2.5). There were participants who also agreed that nursing is a profession with personal growth (mean of 2.7), professional growth (mean of 2.8), and more job opportunities (mean of 2.4). Some participants agreed that it encourages further professional education (mean of 2.9), as a secure job (mean of 3.1), as a profession that has equal values to other professions (mean of 3).

**Conclusion:** The majority of students have neglected nursing as a respectable profession and assume that it is unfit to receive income and other benefits. Therefore, their perception was negative for all three variables; social status, income and other benefits.

**Key Words:** *Advanced Level students, Nursing, Perception, Nursing profession, Attitude*

**Awareness, attitude, and practice of using a face mask among the aged population during Covid-19 pandemic in Gampaha district, Sri Lanka**

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**Introduction:** Increase in the number of Covid-19 patients in Sri Lanka, led the general public to wear masks when stepping out. Sri Lanka is a developing country with an increased percentage of the elderly population but with a poor literacy rate. Therefore, this study was carried out among the elderly population since; they are more prone to get infected. To assess the awareness, attitude, and practice on face masks during the Covid-19 pandemic among the elderly population in the Gampaha district.

**Methods:** Quantitative, descriptive, a cross-sectional research design was used. The study included 100 elderly people residing in the Gampaha district, Sri Lanka as participants using the convenience sampling method. Data was collected using a self-administered questionnaire.

**Results and Discussion:** The participants have completed secondary education level as their highest educational qualification (34%, n=34). The results indicate that most were aware of the occurring pandemic (92%, n=92) and that wearing a mask covering the nose and mouth is one of the most effective preventative methods (83.5%, n=83). Although, all participants stated that they wore a facemask when leaving home, 31% (n=31) declared that it was due to government regulation. Furthermore, 63.6% (n=63) mentioned that a facemask is burdensome as they experience breathing difficulties (73.9%, n=74) and stated that purchasing a facemask is a financial burden (8.7%, n=9).

**Conclusion:** The participants have a considerably good knowledge and practice about the Covid-19 pandemic and its preventive methods, in contrast, most participants identified that wearing the mask is a burden due to difficulties in breathing.

**Key Words:** *Attitude, Awareness, Covid-19 pandemic, Mask, Practice*

**Assessment of knowledge and practices on preventing needle stick injuries among nurses working at Base Hospital, Warakapola Sri Lanka**

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**Introduction:** Needle stick injuries (NSIs) in healthcare settings are a global issue. Risk of transmitting variability of blood borne pathogens to a healthcare worker is greatly increased with the exposure to NSIs. Incidence is high among nurses as they represent the majority of healthcare teams of any country. This incidence is substantially high in a country like Sri Lanka where healthcare delivery is mainly taken by the State in funded hospitals. Therefore, the evaluation of knowledge and practices regarding NSIs of nurses is important for planning to maintain their occupational health. The aim of this study was to assess knowledge and practices related to prevention of NSIs among nurses.

**Methods:** In this descriptive, cross-sectional study, a randomly-selected 198 nurses working at Base Hospital - Warakapola were assessed by using a self-administered questionnaire. Data was descriptively analyzed using Microsoft Excel spreadsheet and SPSS version 20.

**Results and Discussion:** Majority of nurses mentioned that they would report any incidence of NSI to the Infection Control Unit of the hospital (33.3%, n=60). 25% (n=45) of nurses mentioned that they follow post-exposure guidelines after NSIs. Majority of nurses (37.8%, n=68) had mentioned that they recap needles after using. Most of the nurses (80.6%, n=145) had mentioned that they use gloves every time for venipuncture. Findings of this study show a high incidence of NSIs among nurses.

**Conclusion:** According to the findings of this study, it is evident that the majority of the nurses have adequate knowledge on prevention of NSIs but they follow malpractices due to several reasons. Finding out the causes and associated factors can help to reduce the number of NSIs among healthcare workers.

**Key Words:** *Nurses, Needles, Injuries, Knowledge, Practice*

**Knowledge, attitude, prevalence, and risk factors regarding chronic kidney disease among hospital clinic patients**

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**Introduction:** Chronic kidney disease (CKD) is one of the major public health problems which is associated with significant morbidity and mortality. Hypertension and diabetes mellitus were the two most important risk factors for CKD growth rate in Sri Lanka. Awareness and education on kidney disease and management will reduce the economic and public health burden. The aim of the study was to assess patient knowledge, attitude, prevalence, and risk factors of CKD among hypertensive and diabetes mellitus patients in Teaching Hospital, Karapitiya.

**Methods:** Cross-sectional study was conducted at the Teaching Hospital, Karapitiya. A total of 330 participants were selected using the purposive sampling technique among adult (>18 years) hypertensive and diabetes mellitus patients. Data was collected using a questionnaire and chart review. Glomerular filtration rate (GFR) was estimated from serum creatinine using CKD epidemiology\collaboration (CKD-EPI) equation, and CKD was defined using estimated GFR (e-GFR) and albuminuria. Data analysis was done in SPSS version 21.

**Results and Discussion:** Response rate was 94.2% (n=311). An equal number of male (55.2%, n=172) and female (44.8%, n=139) participated in the study. The majority of the study participants (59.1%, n=195) were married, (69.7%, n=142) were living in urban areas, (65.4%, n=136) were educated at least up to elementary level. The prevalence of CKD was 24.2% (n=75). About (46.7%, n=154) had average knowledge and about (54.4%, n=181) had a negative attitude about CKD. Factors associated with CKD were age, marital status, educational level, current employment, and monthly income.

**Conclusion:** The study had an average level of knowledge, low level of attitude, and high prevalence of CKD. DM and Hypertension patients should be diagnosed with CKD early. Their involvement at all stages of care with appropriate health education and promotion, new practical clinical and community-based education, and health promotion programs to facilitate patients' awareness and self-care practices.

**Key Words:** *Attitude, Chronic kidney disease, Diabetes mellitus, Knowledge, Risk factors*

**Assessing the tobacco and alcohol using behavior among undergraduate university students in the Colombo district, 2021**

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**Introduction:** Tobacco smoking and the harmful use of alcohol are two major risk factors of non-communicable diseases. Tobacco smoking is currently considered a silent pandemic as well as the most important public health problem which can be prevented. It has spread to other areas, despite medical, social, and religious objections, and it is now widely practiced all over the world. Alcohol is a depressant drug that impairs a person's ability to think clearly and distorts their judgment. Alcohol and tobacco are often used together and are among the top causes of preventable deaths worldwide. This study is aimed to assess the tobacco and alcohol use behavior among undergraduate university students in the Colombo district, Sri Lanka.

**Methods:** A descriptive, cross-sectional study was conducted among 200 male and female undergraduate university students in the Colombo district using a self-administered standard questionnaire. The study was carried out through an online questionnaire prepared with standard reference and was distributed as a Google form. A convenient sampling method was used for the selection procedure. Data analysis was executed using the Microsoft Excel and Statistical Package for Social Sciences (SPSS) version 20.

**Results and Discussion:** Majority (40.5%) of participants are involved in both tobacco smoking and alcohol use while 36.5% were restrained from both behaviors. Most of them (69.3%) have been using tobacco, alcohol, or both for the last two years. The majority of them (52%) were over 18 at their first experience of these behaviors. The majority (40%) smoke only one cigarette per day while 39.7% consume three to six shots of alcohol on one occasion. Most (74.8%) of them stated that it was easy for them to obtain tobacco and alcohol. The majority of the participants (87.4%) like to smoke tobacco or drink alcohol with their friends.

**Conclusion:** Findings reveal that majority of respondents were involved in both the tobacco smoking and alcohol use behaviors. Therefore, it is essential to conduct more awareness and prevention programs regarding those behaviors together with mind relaxation and tranquility programs, within universities and other educational institutions such as schools, in order to prevent students from engaging in such behaviors which consist of many harmful negative consequences.

**Key Words:** *Tobacco and alcohol using behavior, Undergraduate university students, Colombo district, Practices, Perception*

**Knowledge, attitude and practices of self-medication among adolescents and young adults in Gampaha district, Sri Lanka - 2021**

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**Introduction:** Many factors influence self-medication, including socioeconomic factors, lifestyle, and the increased potential to manage certain illnesses through self-care, increased availability of medicinal products, and availability of healthcare and health professionals, advertisement exposure, education, and professional status. Self-medication offers both benefits and drawbacks. Inappropriate self-medication can lead to therapeutic failure, adverse drug reactions, side effects, extended suffering, bacterial resistance, drug dependency, financial loss, and resource waste. Compared to older people many factors influence the practice of self-medication among adolescents and young adults. The aim of this research is to identify the knowledge, attitude, and practices of self-medication among adolescents and young adults.

**Methods:** A descriptive, cross-sectional study was conducted on 178 students of IIHS with the age between 17-24 years in Gampaha district, through an online questionnaire prepared with standard reference, according to convenient sampling method. Obtained data was analyzed with the aid of Excel and Statistical Package for Social Sciences (SPSS) version 20.

**Result and Discussion:** In the study, 110 (61.8%) were females, and 68 (38.2%) were males. Among them, 152 (85.4%) practice self-medication. Headache is the most common condition where self-medication is practiced and paracetamol is the most common drug used. Self-medication was preferred by 128 (71.9%) participants and the most common reason mentioned was that there is no need to consult healthcare professionals for a simple ailment. Also, 50 (28.1%) participants think self-medication is entirely safe and 76 (42.7%) would suggest self-medication to others. About 88 (49.4%) had knowledge about over-the-counter (OTC) drugs from previous consultation. Also, 78 (43.8%) students considered Ayurvedic medicine as OTC drugs for self-medication.

**Conclusion:** Self-medication is being widely practiced among the students. The practice of self-medication was almost appropriate. Yet, few students practice self-medication in an inappropriate way and some experience side effects. In general, self-medication must be accompanied by relevant information. Students and the general public need to be educated on the advantages and hazards of self-medication today more than ever.

**Key Words:** *Self-medication, Over-the-counter, Practices, Adolescents, Young adults*

**Awareness and attitudes towards first aid given during a road traffic accident among public in Gampaha district, Sri Lanka**

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**Introduction:** First aid is the immediate assessment and interventions when the most ideal treatment cannot be provided. The goals are to preserve life, alleviate suffering, prevent further illness or injury and promote recovery. The first to encounter the injured during an accident is the public. Therefore, they must know how to provide first aid to minimize the burden of injury following road traffic accidents. The purpose of this study was to assess the awareness and attitudes on first aid in road traffic accidents among the general public.

**Methods:** A descriptive, cross-sectional study was conducted on a convenient public sample (n=324) living in Gampaha district. Data was collected through a validated questionnaire. The self-administered questionnaire was circulated via social media platforms and analyzed using descriptive analysis methods.

**Results and Discussion:** Most of the participants (54.4%, n=176) were between the ages 20 to 39 and more than half of them (52.5%, n=170) were females. All participants were at least ordinary level qualified. Out of the respondents, 98.8% (n=320) have heard about first aid and the majority (96.9%, n=314) believed that first aid is important. Stopping bleeding and maintenance of breathing were the priorities in saving the life of an injured person according to 51.9% (n=168) and 19.1% (n=62) respectively. According to 44.6% (n=144) of the participants, no response when called/touched and no movement were the criteria to determine consciousness. Regarding attitudes, only 49.4% (n=160) of the sample stated that they were willing to provide first aid. Another 21.6% (n=70) explained that they lack the confidence to provide first aid. Additionally, 61.7% (n=200) pointed out that making a mistake is a concern that may prevent them from providing first aid. Nevertheless, 69.8% (n=226) of the sample think that laypeople should be trained in first aid and should be willing to attend a training program.

**Conclusion:** The general public had satisfactory awareness but unclear attitudes towards the provision of first aid. Training programs must be conducted for the general public to educate about techniques that will be useful during an emergency.

**Key Words:** *Attitudes, Awareness, First aid, Public, Road traffic accident*

**Prevalence in consumption of junk foods among adolescents studying in a private school in Gampaha district, Sri Lanka**

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**Introduction:** Junk food is including lots of calories, salt, and fats. The ingredients in junk food give them a wonderful taste, making them addict and posing several health risks. The present study aimed to examine the prevalence of junk food consumption among teenagers, the causes leading to consumption and their impact on human health.

**Methods:** A descriptive cross-sectional study was conducted. Close-ended questions were asked from the study sample, through a questionnaire. Adolescents from private schools, who were in the age between 10 and 19 in Gampaha district, Sri Lanka. The total sample size was 203.

**Results and Discussion:** The findings revealed that more girls (73.2%, n=148) consumed fast food than boys and approximately half of the participants (59.2%, n=120) consumed junk foods over the last 2 months in private school. Fast food was consumed by roughly 33.1% (n=67) of the teenagers at least once per week. More than of the participants (32.4%, n=66) consumed salty snacks, followed by sweets (4.2%, n=8). Nearly 87.3% (n=177) of students said that junk food is unhealthy in the survey. According to the findings, 31.7% (n=64) of students did not verify the nutritional content, quality, chemicals contained, or influence on human health. Breakfast skipping has been linked to weight gain, obesity, and addiction to poor eating behaviors, such as eating more junk food.

**Conclusion:** The findings focus on adolescent attitudes about junk foods, individual preferences, consumption rates, and acquaintance with the negative health implications of junk food intake. According to the findings of this survey, respondents were diplomatic in their responses, and a few were aware that continued intake of junk foods might have significant health consequences.

**Key Words:** *Adolescence, Consumption, Junk food, Prevalence, Private school*



**Awareness on nutrient components of the foods among the Ordinary Level students in a national school in Nikawaratiye**

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**Introduction:** Increased awareness of the nutritional values in foods is a great concern among adolescents to establish healthy eating behaviour in society. This study aims to assess the awareness of nutrients of the foods among the ordinary level students and significant knowledge difference between the gender and grade-wise in a national school in Nikawaratiya.

**Methods:** This was a descriptive correlational and cross-sectional survey conducted with 268 students studying in grades 10 and 11 in Nikawaratiye Jayanthi National School. A Validated self-administered questionnaire was distributed to all the students in both grades and the response rate was 67%. The items scale consisted of 36 items. Ethical approval was taken from the Ethics Review Committee of the International Institute of Health Sciences. Descriptive statistical analysis was performed with SPSS version 22. Mann-Whitney U test was performed to find the significant knowledge difference.

**Results and Discussion:** Out of 268 the participants 62.3% (n=167) were in grade 11 and 37.7% (n=101) in grade 10. Among them 50.3% (n=134) were male and 49.3% (n=132) were female. Total knowledge scores were ranging from 0 to 26 and mean score was 16.59 (SD±4.54). 60.4% (n=162) of students had the knowledge above the mean knowledge score and majority of students (12.3%, n = 33) had scored 17. Study revealed insignificant difference between the knowledge on nutrient components and male (median=17, n=136) and female (median=17, n=132), [U=7828, z=-1.816, p=0.069 r=0.11]. There was no significant difference between the knowledge on nutrient components in the foods with grade 10 (median=18, n=101) and 11 (median=17, n=167), [U=7261, z=-1.914, p=0.056, r=0.11].

**Conclusion:** Mean knowledge of the students was unsatisfactory. There was no knowledge difference between grade-wise or gender-wise. More than one-third of the students had the knowledge below the mean knowledge level regarding the nutrients' contents of the foods. Further studies are required to assess the knowledge on nutrition among school children.

**Key Words:** *Awareness, Food, Knowledge, Nutrients, Students*

## The perspective of Covid-19 among elderly in Gampaha district, Sri Lanka

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**Introduction:** Covid-19 pandemic had resulted in issues such as financial, psychological and physical health problems due to stricter lockdowns, loss of social support and higher threats of illness. It is proven that individuals above age 60 are most vulnerable in getting subjected to the disease with severe health-related outcomes. This study focuses on the perspective of elders regarding the impact of Covid-19 on their health, psychological status, family interactions and socio-economic status.

**Methods:** This research is a phenomenological qualitative study conducted on elders over 60 years' old living in the Gampaha district. A purposive sampling method was followed. Data collection was obtained till the point of saturation in which a total of 20 participants were interviewed through a virtual platform and guided by a semi-structured and open-ended questionnaire. Data were analyzed using thematic analysis.

**Results and Discussion:** The results were analyzed into 5 themes. It was clear that the individuals' status of employment affected the economic burden. An individual's living status had a major impact on their views of lockdown. Impact on healthcare facilities during Covid-19 had dual feedback where a majority of the participant had a positive experience with the support of telemedicine while some had difficulties receiving medications or attending clinics. The psychological impact had negative feedback due to extensive lockdown measures, fear of the Covid virus, loss of economy and anxiety were some of the responses. With regards to family interactions, the participants declared they had quality time with their family and loved ones during this pandemic situation while some specified family issues due to financial problems.

**Conclusion:** Covid-19 is altering the everyday lives of older people as well as the treatment they get, their ability to remain socially involved, and how they are perceived. Requirements to spend more time at home; loss of physical interaction with other family members, friends, and colleagues; temporary cessation of jobs and other activities; and anxiety and fear of sickness and death – their own and others' – are all challenges for older individuals.

**Key Words:** Covid-19, Elders, Impact, Pandemic, Perspectives

**A study on the use of over-the-counter medication among 20-50 age group at  
Bollatha South division in Gampaha district**

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**Introduction:** Over-the-counter (OTC) medicine is defined as directly sold to the consumer without a prescription from a doctor. Elevated consumption of OTC medicine leads to addiction and it can be harmful. Self-medication can cause several illnesses to organs, mental addiction, social abuse and misuse. The main objective of the study was to determine the perception and level of awareness regarding OTC medicine among the selected population in Sri Lanka.

**Methods:** A descriptive cross-sectional study was conducted and a structured questionnaire was distributed randomly among 150 people of age 20-50 in Bollatha South division in Gampaha district. Data were analyzed by Microsoft Excel.

**Results and Discussion:** According to interpreted results, the age group 40–49 had the highest (37%, n=55) OTC consuming population. Many female participants with bodyweight 60–80 kg group (52%, n=78) have used self-medication for systemic pain. Correlation can be seen in physical characteristics, causes for using OTC medicine, perception and awareness of side effects for practice self-medication. More than 50% (n=75) participants did not have an idea about storage conditions of medication and the majority of them had many side effects after taking OTC due to administering wrong dosages. Many participants take OTC medicine at their own will. The majority of females tend to take OTC medicine to cover their pain to cope up with their busy household schedule. Furthermore, despite the educational level, people tend to use OTC medicine on their own.

**Conclusion:** To overcome the harmful effects of misuse of OTC medicine, health care professionals can organize awareness programs about OTC medicine. Also, legal parties can make legislation to reduce or prevent misuse of OTC medicine.

**Key Words:** *Awareness, Drug abuse, Over-the-counter medication, Perception, Self-medication*

**Teachers' knowledge and practices on refractive errors of primary school children in Deniyaya educational zone**

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**Introduction:** Refractive error (RE) is an optical defect of the eye that prevents parallel light rays from being brought to a clear focus on the retina and is a common cause of visual impairment (VI) and blindness worldwide. Vision problems can affect students' ability to function in and enjoy learning. Therefore, teachers are the main resource to detect this issue, as they can identify it easily. The main aim of this study is to assess teachers' knowledge and practices in identifying RE of primary school children.

**Methods:** Research was conducted among teachers who teach children (grades 1 to 5) at primary schools in the Deniyaya zonal division, Matara. The study was designed quantitatively and carried out as a cross-sectional descriptive study. Data collection was done via a self-administered questionnaire. The correlation coefficient was the method used in data analysis, and the data analysis tool was SPSS version 20.

**Results and Discussion:** Among 60 of the participants, only 83.3% had given the answers properly. The majority of them were female (91%). There were 22% (n = 11) below 30 years old and 42% (n = 21) between 31 and 40 years old. Only 72% (n = 36) of them have a diploma from teacher training schools. Among them, 58% didn't know that gradually increasing weakness in the study of a student is a sign of RE. According to the study, 87% didn't know that the low or restricted activity level of a student is a sign of RE, but 92% correctly pointed out that books kept very close to the eyes when reading is one of the serious symptoms of RE.

**Conclusion:** Considering the scope of the problem, its impact on children's lives, and the obvious importance of early identification, it is distressing that so little research is available to guide the development of better methods for identifying these children. Educating teachers to detect RE in children will be a great help in this matter.

**Key Words:** *Refractive error, School children, Primary teachers, Knowledge, Signs and symptoms*

**Knowledge and practices on prevention of surgical site infection among undergraduate nursing students in a selected institute in Sri Lanka**

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**Introduction:** Surgical site infection is the second most common reason for healthcare-associated infections. It is an infection that occurs within 30 days after an operation which causes redness, fever, pain, and swelling. It is also one of the most imperative complications of surgical intervention. According to the Centers for Disease Control and Prevention (CDC), about 500,000 surgical site infections occur annually and account for 3% of surgical mortality, prolonged lengths of hospital stay, and increased medical costs. This study aims to assess the knowledge and practice of practicing nurses regarding the prevention of surgical site infections.

**Methods:** Descriptive, cross-sectional study design was applied and data was collected using a questionnaire. Convenience sampling technique was used to collect data from a sample of 100 nurses, studying a bachelor of nursing at a private institute. The study excluded graduated nursing officers, sisters, matrons, and individuals who were not willing to participate. The gathered data were analyzed by using the SPSS 25 version.

**Results and Discussion:** According to the results, only 35.7 % of respondents scored above average on the level of knowledge regarding prevention of surgical site infections whereas 64.2% scored poorly. When considering the practices, despite a poor level of knowledge, 93.3% practiced correctly.

**Conclusion:** Results clearly showed a low level of knowledge and a good level of practice towards surgical site infection. This indicates that the nurses working in the surgical-related wards lack adequate knowledge regarding surgical site infection prevention. The study also would recommend educational programs to be conducted regarding surgical site infection prevention and the nursing curriculum should be adjusted accordingly in order to provide quality care to patients.

**Key Words:** *Knowledge, Practices, Undergraduate nursing students, Surgical site infection*

**A study on knowledge, attitude, and practices regarding hand hygiene among the third-year nursing students in a college of nursing - Matara, Sri Lanka**

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**Introduction:** Hand hygiene is recognized as the leading measure to prevent the cross-transmission of microorganisms and to reduce the incidence of healthcare-associated infections. Despite the procedure's simplicity, hand hygiene compliance among health care workers is extremely low. Hospital-acquired infections (HAIs) are thought to be transmitted by the hands of health care workers (HCWs). Reducing HAIs requires that HCWs take responsibility for ensuring that hand hygiene becomes an everyday part of patient care. This study was conducted with the objective of assessing the level of knowledge, attitude, and practices (KAP) regarding hand hygiene among third-year nursing students in the College of Nursing Matara, Sri Lanka.

**Methods:** This quantitative descriptive study was conducted among 187 third-year nursing students in the College of Nursing Matara, Sri Lanka. A self-administered questionnaire containing a different set of questions regarding knowledge, attitude, and practice of hand hygiene was used for data collection. Data analysis was done using SPSS and Excel 2016.

**Results and Discussion:** The knowledge of hand hygiene was moderate (89%, n = 167) among the total study population. Only 43.9% of nursing students correctly identified the minimum time required for an alcohol-based hand rub (20 seconds). According to the answers, 96% (n = 179) of the participants had a positive attitude towards hand hygiene. Among them, 43.9% of the correspondents believed that they had not been properly instructed in hand hygiene during their practice, 17% of the participants exhibited good practice regarding hand hygiene, and 93.6% realized that the presence of an infection prevention team would have a positive influence on their hand hygiene practices.

**Conclusion:** Moderate knowledge among the majority of the nursing students reflects upon their positive attitude and practice regarding hand hygiene. Essentially, most of the nursing students considered hand hygiene an essential part of their role. Improvement of accessibility to hand hygiene facilities would play an important role in improving compliance with hand hygiene in current practice.

**Key Words:** *Hospital-acquired infections, Nursing students, Hand hygiene, Healthcare workers*

**A study on staff nurses' knowledge and practices on diabetic wound care management in Sri Jayewardenepura General Hospital, Sri Lanka**

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**Introduction:** Diabetic mellitus (DM) is a major health problem throughout the world, including Sri Lanka. Nurses play a key role in wound care. Their knowledge and practices are important in providing optimum care to patients. The present study aims to identify DM wound care management and knowledge among staff nurses in the General Hospital (GH) Jayewardenepura, Sri Lanka.

**Methods:** A quantitative, descriptive cross-sectional design and a convenience sampling method were used from the 30th of March to the 30th of April, 2020. A self-administered, close-ended structured questionnaire consisting of four sections was used to capture demographic data, knowledge, perception, and practices of nurses on diabetic wound management of 100 nurses who work in Sri Jayewardenepura GH, Sri Lanka. Data analysis was done via SPSS 25. Nurses who did not give consent and nurses from other wards and clinics were excluded.

**Results and Discussion:** (96%) of the participants were female. (83%) of nurses were aged below 35. (60%) had less than 5 years of work experience. (71%) are diploma holders. (92%) agreed that DM is mainly identified as increased blood glucose levels. (88%) said neuropathy is the predominant factor responsible for DM wounds. (92%) agreed that the wound healing process is satisfactory if the wound bed is pink. (83%) identified that mechanical offloading should be advised to facilitate ulcer healing. (77%) think that 70-100 mg/dl is the normal fasting blood sugar. (98%) answered that family history is the main cause of DM. (98%) think that non-healing wounds are the main sign and symptoms of DM. (81%) disagree with the statement that wound management can be done only by doctors and nurses. (93%) say that wound dressing can provide moisture balance, growth factors, and antimicrobial effects. (100%) stated that patient education is one of the critical nurses' roles during DM wound management. (67%) agree that blood testing is the nursing role and (81%) think that prescribing insulin is not a nurse's role during DM wound management. (91%) have identified that the presence of slough is an indication of infection in DM ulcers. (81%) responded that mechanical offloading should be advised to facilitate DM ulcer healing. (60%) think iodine dressings are effective for wounds with clinical signs and infections (60%). (98%) had not followed any external courses regarding diabetic or DM wounds. This may be due to the lack of facilities in the Sri Lankan hospital setup as well as the unavailability of external courses directly focused on DM. It is clear that if there were courses available that focused on DM, it would vastly improve the knowledge and skills of the nurses currently involved in DM patient care, thus leading to improved service.

**Conclusion:** This study shows that most of the nurses working in Sri Jayewardenepura GH are well aware of their role and responsibilities in the management of DM wounds.

**Key Words:** *Knowledge, Practice, Diabetic wounds, Nursing care, Ulcers*

**Knowledge and attitudes towards substance-induced psychosis among the drug-addicted males in the Mithuru Mithuro drug rehabilitation center**

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**Introduction:** Substance abuse is a serious matter that should not be taken lightly. It happens when you consume too much or the wrong kind of alcohol, prescription medications, or other legal or illegal substances. Substance-Induced Psychosis (SIP) is a disease characterized by changes in brain chemistry as a result of many types of substance abuse. The drug can be introduced in a variety of forms. The study looked at a study of drug addicts' awareness and attitudes toward SIP. The goal of this study was to assess drug-addicted males' knowledge and attitudes toward SIP at Mithuru Mithuro drug rehabilitation center.

**Methods:** In this study, the Pelmadulla Mithuro Mithuro rehabilitation center was chosen for the study, and only male patients participated. The study was designed as a quantitative descriptive study. Random sampling was used. A questionnaire was used to collect responses from 80 patients for this investigation. Likert scale questions and tick box questions were used to describe each of the above primary factors. The data was analyzed using Microsoft Excel.

**Results and Discussion:** Among 80 participants, 43% were aged 18–29 years (n = 35). Among them, 48% are jobless (n = 39). Data showed that 36% of them don't have any income source. The results were derived using three variables, the first of which is a measure of knowledge of substances that cause psychosis, with a mean value of only 3.04. The second variable, assessing the attitude toward substance-induced psychosis, had an average mean value of 3.63 for the five-scale one and 2.01 for the three-scale one.

**Conclusion:** The goal of this study was to analyze drug addicts' knowledge and attitudes about SIP at Mithuru Mithuro Drug Rehabilitation Center in Pelmadulla, Sri Lanka. As a result, it is inferred that the patient has a poor degree of disease awareness, and it is apparent that this knowledge should be instilled in the patient. This is due to the fact that controlling the condition is challenging with limited information about the disease. The authors recommended increasing awareness of SIP among patients and the youth community.

**Key Words:** *Knowledge, Substance induced psychosis, Rehabilitation, Drug addiction*



**Levels of awareness on chronic kidney disease among family members of chronic kidney disease patients in Thissamaharama, Sri Lanka**

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**Introduction:** There is an alarming rise in chronic kidney disease (CKD) prevalence locally and globally, which is associated with significant morbidity and mortality, necessitating special attention as one of the major public health problems. The burden of CKD disproportionately impacts low-income countries like Sri Lanka and India, where hypertension and diabetes mellitus, the two most important risk factors for CKD growth rate, are greatest. The aim of this study is to assess family members of CKD patients' awareness, prevalence, and risk factors for chronic kidney disease among hypertensive and diabetes mellitus patients' and patients who are suffering from CKD due to any other cause.

**Methods:** This was a cross-sectional descriptive study carried out among family members of chronic kidney disease patients in Thissamaharama, Sri Lanka. Knowledge of CKD was assessed using self-administered pretested questionnaires. One-hundred family members participated in the study, with a male-to-female ratio of 1:1. Data analysis was conducted using Microsoft Excel. Descriptive statistics were used to characterize the samples level of awareness of chronic kidney disease among family members of chronic kidney disease patients.

**Results and Discussion:** There were significant deficiencies in the knowledge of CKD among family members of the CKD patients who participated in the study. The study revealed that the majority of participants (close to 98%) were well aware of kidney donation and renal transplantation. But finding a suitable kidney for a CKD patient is one of the most difficult processes in Sri Lanka. It was found that a considerable number of participants had the idea of the solutions for CKD, and the majority of them selected kidney transplant and hemodialysis as the most reliable options for CKD. According to the study findings, peritoneal dialysis is not very popular among Sri Lankan people. At least half of the participants had no idea how to manage a CKD patient's diet.

**Conclusion:** Participants did not have much knowledge about the risk factors for CKD, what ways of prevention and dietary management at home. Therefore, society should be advised and educated about CKD, and family members with CKD patients must have educational sessions on the management of CKD patients at home to prevent complications.

**Key Words:** *Awareness, Chronic kidney disease, CKD, Prevention, Management*

**Awareness of anemia among pregnant women: A study conducted in the MOH Heegoda antenatal clinic, Sri Lanka**

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**Introduction:** The hemoglobin (Hb) concentration below 11 g/dl during pregnancy leads to iron deficiency anemia (IDA). As maternal iron needs and demands increase due to the growing fetus and placenta, pregnant mothers are at risk of having IDA which causes many complications during pregnancy and infancy. The purpose of this study is to explore the knowledge about IDA among pregnant mothers who are in their first trimester.

**Methods:** A self-administered questionnaire was distributed in this descriptive, cross-sectional study among 60 pregnant mothers using convenience sampling method. The mothers who were attending the antenatal clinic at MOH Heegoda were selected. The gathered data was analyzed by descriptive statistics using SPSS 22 version.

**Results and Discussion:** Significantly, 80% of the respondents have identified low Hb level (<11g/dl) as IDA. Most frequently mentioned causative factors of IDA were inadequate food intake (90%) and imbalance diet (80%) and stress (1%) mentioned by only a few pregnant mothers. 60% of pregnant mothers identified milk and milk products as inhibitors in iron absorption. Two thirds of pregnant mothers have identified tiredness and pale color of the body as dominant signs of IDA. Most known side effects were low birth weight (32%), premature delivery (30.5%) and postpartum anemia (30%).

**Conclusion:** The study showed that considerable knowledge of pregnant mothers with respect to meaning, causes, signs and, iron-rich food sources of IDA while showing comparatively poor knowledge of the effects of IDA in pregnancy. Therefore, it is recommended to have more awareness programs to further educate on the effects of IDA among pregnant mothers in Sri Lanka.

**Key Words:** *First trimester, Iron deficiency anemia, Knowledge, Pregnant mothers, Sri Lanka*

**Knowledge, practice and attitudes on safety measures against corona virus among adults aged 40-70 years in Kamburupitiya area, Matara district**

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**Introduction:** COVID-19 was first detected in China in December 2019. In Sri Lanka, the first COVID-19 was reported in late January 2020, and it was a Chinese citizen. The first local cases were identified in the second week of March. He was a 52-year-old tour guide. From that case onward, there were more cases found in various areas of Sri Lanka. The government of Sri Lanka takes preventive measures, but the number of people infected with COVID-19 has increased. Most of the people among them were adults over 40 years of age. The goal of this study was to assess 40–70 years' old adults' knowledge, practice, and attitudes toward safety measures to protect against the Corona virus.

**Methods:** The descriptive cross-sectional study was done among 100 adult populations in the Kamburupitiya area. The SPSS statistics package and MS Excel analysis were used to analyze the collected data.

**Results and Discussion:** From the total participants, 95%, 89%, and 37% had good knowledge, attitudes, and practice, while 4%, 10%, and 51% had moderately good knowledge, attitudes, and practice on safety measures to be taken to protect against COVID-19. Only 1% had poor knowledge and attitudes regarding safety measures against COVID-19. 12% had poor practice in safety measures.

**Conclusion:** Generally, the knowledge and attitudes towards safety measures to be taken against COVID-19 in 40–70 year olds was high, but the preventive practices towards COVID-19 were found to be less effective and inappropriate. Furthermore, since no proven preventable medicine has been invented yet, maximizing knowledge, increasing behavioral change, and strengthening preventive practices towards COVID-19 prevention and control is the appropriate solution.

**Key Words:** *Knowledge, Practice, Attitudes, Safety measures, Corona virus*

**Assessing the knowledge and practices of foot care among type-II diabetic patients in Colombo South Teaching Hospital, Kalubowila**

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**Introduction:** Diabetes mellitus is a major public health problem. Diabetes is the foremost emerging non-communicable disease which is categorized as a metabolic disorder when characterizing hyperglycaemia resulting from a defect in insulin secretion, function of insulin, or both of them. The aim of the study was to assess the knowledge and practices of foot care among type-II diabetic patients admitted to Colombo South Teaching Hospital, Kalubowila.

**Methods:** A descriptive, cross-sectional study was done among a conveniently-selected sample of 100 diabetic patients. Data were collected using an interviewer-administered questionnaire to determine the knowledge and practice of foot care. SPSS statistical package was used to analyze collected data, descriptively.

**Results and Discussion:** The sample consisted of more males (60%) compared to females (40%) and Majority were in the age group of 50-59. Most of the respondents were educated up to GCE A/L or GCE O/L. The majority were diagnosed with diabetes for a duration of more than five years (54%). Most of the respondents did not have enough knowledge regarding foot care (79%) or foot ulcers (55%). Knowledge on checking for foot ulcers was also poor (53%). Most of the respondents have got some awareness and practice regarding diabetes and foot care through health education from the clinic. Foot care (79%), currently using footwear (80%), foot check-ups (63%), and the knowledge about risk factors (63%) were not up to the mark among most of the patients.

**Conclusion:** Patients have a low self-management knowledge on foot complications and practice. To improve their knowledge and to encourage them, it is required that they are educated about proper treatment methods including foot examination, foot care, currently using footwear, foot check-ups, clinical features, and risk factors.

**Key Words:** *Diabetes Mellitus, Education, Patients, Complications, Foot Care*

**A study on assessing knowledge and attitudes towards cesarean section among pregnant women attending the antenatal clinic in Fuvahmulah Hospital, Maldives**

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**Introduction:** Cesarean section (CS) has considerably reduced maternal morbidity and mortality worldwide, there are still issues about women's awareness and attitudes around CS. Caesarean section deliveries are on the rise in both developed and developing countries, including the Maldives. Aimed to assess pregnant women's knowledge and attitude towards caesarean section at Fuvahmulah Hospital; Maldives.

**Methods:** Pregnant women of all ages, the study used a sample size of 120 pregnant women who visited the Fuvahmulah hospital's antenatal clinic. A pre-tested interviewer-administered structured questionnaire consisting of only closed ended questions was used and it was filled by the participants themselves. The Chi square test was used to determine the associations between women's demographics and their knowledge of caesarean section.

**Results and Discussion:** From the respondents 56.7 % had good knowledge regarding caesarean section, 43.3% had poor knowledge on the procedure. There was significant association between knowledge on caesarean section and respondents' characteristics. Even though there was a high awareness level (82.5%) among women who attended antenatal clinics, the level of knowledge on caesarean section was low in comparison.

**Conclusion:** The understanding of the indications for CS and the perceived repercussions of the operation influenced women's preferred mode of delivery. As a result, education should be aimed at women who lack formal and prim gravida schooling, as they are the primary decision-makers in most families.

**Key Words:** *Cesarean section, Morbidity, Mortality, Delivery, Awareness*

**Practices of soft drink consumption among students in nursing training school - Colombo**

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**Introduction:** Over-consumption of any sugary drink has the potential to lead to an energy imbalance. However soft drinks can be singled out for specific attention as a possible target of population-level obesity-prevention programs for a number of reasons. Cardiovascular conditions following excessive energy drink consumption include heart palpitation, tachycardia, chest pain and dysrhythmias. And the aim of this study was to determine the factors associated with sugar-sweetened soft drink consumption in nursing students from Colombo nursing training school (NTS).

**Methods:** A descriptive cross-sectional study was conducted where the data collected by means of a self-administered questionnaire at NTS - Colombo district of Sri Lanka. Nursing students aged between 20 also 30 years attending the third year of the diploma program of the NTS were assessed for the study using convenience sampling.

**Results and Discussion:** Overall, 98% of the participants consumed soft drinks and 65% consumed sugar-sweetened soft drinks once weekly or more often. The majority (61%) of the nursing students were concerned about the content of the soft drink while 24% of them sometimes checked the label and a few students (14%) did not look at the contents. Most participants (67%) bought soft drinks, from the NTS canteen, 6% from the hospital canteen, and 12% from a nearby town. A majority (65%) of the participants were concerned about the color code that represented the sugar content. Increased soft drink consumption has been related to the availability of soft drinks in the school environment. Most nursing students have good knowledge of soft drinks. Educational level and social factors were independently associated with the consumption of sugar sweetened soft drinks.

**Conclusion:** The majority of students in this sample consumed sugar-sweetened beverages once week or more often. Therefore, there is a need for nutrition education to limit the consumption of sugar-sweetened soft drinks among young adults in Sri Lanka.

**Key Words:** *Awareness, Consumption, Knowledge, Nursing, Soft drinks*

**Awareness of palliative care among nurses doing higher studies at a private healthcare institute in Sri Lanka**

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**Introduction:** Palliative care is specialized medical care for people living with a serious illness. This type of care is focused on providing relief from the symptoms and stress of the illness. The goal is to improve the quality of life for both the patient and their family. Palliative care is necessarily multidisciplinary. The distress and burdens of those facing death and the ability to offer support for the physical, social, psychological, and spiritual needs of the patients and their families can be reduced by expert nursing care. This study aims to assess the awareness of palliative care among BSc nursing students at a private healthcare institute.

**Methods:** A descriptive cross-sectional study was conducted among 100 nurses studying for the BSc program at a private healthcare institute. The study participants were selected by a convenience sampling technique. A self-administered questionnaire was distributed among the study participants. The Statistical Package for Social Sciences (SPSS) version 21 was used to analyze the collected data.

**Results and Discussion:** According to correlation results, nurses' knowledge, attitude, and practice have a statistically significant positive relationship regarding palliative care ( $p < 0.05$ ). Hence, there is enough evidence to support the alternative hypothesis to be accepted at the 5% level ( $p < 0.05$ ). Accordingly, nurses' knowledge, attitude, and practice have a significant positive impact on palliative care.

**Conclusion:** Nurses' job experience has a significant association with their practices and knowledge of palliative care. Overall, nurses' overall knowledge and practices towards palliative care are poor. Working experience had a significant association with nurses' practices and knowledge of nurses. So, nurses need to get continuing education and training about palliative care and improve practices that will enhance their knowledge. These findings suggest that nurses need to develop positive attitudes and increase their knowledge of palliative care to improve the quality of life of patients in Sri Lanka.

**Key Words:** *Palliative care, Student nurses, Knowledge, Attitude, Practices*

**Knowledge on and patterns of administering paracetamol among grade 12 and 13 students in Northern Hunuwala College**

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**Introduction:** Self-medication is the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms. Non-prescription medication-taking behavior might lead to issues related to misuse. Paracetamol (acetaminophen) is the commonest agent employed in self-poisoning. Paracetamol is an antipyretic medicine that is widely used in many countries and the use seems to be growing among pediatric patients. It is a widely used over-the-counter drug for pyrexia and mild-to-moderate pain in all age groups.

**Methods:** A descriptive, cross-sectional study was conducted. Data was collected by using a pre-validated questionnaire with the consent of the corresponding authors of a previous study. The sample size consisted of conveniently-selected 60 school students from grades 12 and 13. Out of those 60 students, 38 girls and 22 boys were selected from Northern Hunuwala College. The data was analyzed using Statistical Package for Social Sciences (SPSS 20) software. Descriptive statistics including mean and median with standard deviation, frequency, percentage was used to understand the study population characteristics and results.

**Results and Discussion:** The sample consisted of students from grades 12 and 13. Over half of the respondents were females (63.3%). The majority of the respondents (68.3%) decided to take paracetamol without a prescription. Students believed that they have knowledge about paracetamol usage (41.7%) and that prescription is not necessary (86.6%). The majority of respondents also believed that the recommended adult dose of the drug is two tablets of 500 mg while about two-third mentioned that recommended dose depends on patients' weight. The knowledge regarding the side effects of paracetamol is very poor among students. Only 33.4% of respondents knew that 15 tablets per day will be toxic to the body. There was no significant relationship found between knowledge and consumption pattern of paracetamol ( $p>0.05$ ).

**Conclusion:** Paracetamol use among Sri Lankan school students is on the rise, but knowledge about dose, side effects, toxicity, and a lethal dose is considerably low among them. Pharmacists' contribution to counseling patients on over-the-counter paracetamol use is very low.

**Key Words:** *Paracetamol, Knowledge, Consumption Patterns, Students, School*



**The level of knowledge and attitude regarding maternal nutrition among pregnant mothers in Kuruwita MOH area, Rathnapura district, Sri Lanka**

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**Introduction:** Maintaining a healthy, balanced diet is important for maintaining optimal health throughout life. For women of childbearing age, good nutrition is important for preparing the body for the demands of pregnancy. The nutritional status of women is very significant as it is through these women and their children that the deleterious effects of malnutrition are transmitted to future generations. According to the World Health Organization, many women do not get enough nutrients in their diets during pregnancy. They are also unaware of how much their nutritional status impacts their pregnancy and infant outcomes. Pregnant women have to replenish their nutritional intake so they have to know nutritional needs for pregnancy. This study was conducted to assess the level of knowledge and attitudes pregnant mothers have regarding maternal nutrition.

**Methods:** A descriptive, cross-sectional survey study was conducted among a conveniently-selected sample of 100 pregnant mothers. A standardized validated, Short Form (SF) 25 questions were used in the questionnaire to determine knowledge and attitude regarding maternal nutrition among pregnant mothers. Microsoft Excel software was used to analyze collected data descriptively.

**Results and Discussion:** According to the results, the majority of respondents were belonging to the age group of 26-35 years (63%), education-wise most were schooled up to grade 6-10 (40%), religion-wise 87% were Buddhists, 96% were married, and most of them (43%) had an income range of 10,000 - 25,000 LKR. Parity-wise, most of them (46%) were in their second parity, most of them (43%) were in their third gestational period. According to the before and after pregnancy BMI analysis of already delivered mothers, both were somewhat equal where 61% of them were in a normal range. Most of them had less knowledge and poor attitudes regarding the nutritional requirements of pregnant mothers in different trimesters and regarding ways of fulfilling the nutritional requirements.

**Conclusion:** Nutrition plays a major role in maternal and child health. Poor maternal nutritional status has been related to adverse birth outcomes. According to the result, pregnant mothers had very less knowledge about maternal literacy, especially regarding nutrition, not following up good attitudes around maternal nutrition. Highly recommended to provide proper knowledge on a regular basis regarding maternal nutrition via maternal clinics, especially in rural areas.

**Key Words:** *Knowledge, Attitude, Maternal nutrition, Pregnant mothers, Sri Lanka*

**Awareness on family history of non-communicable diseases and practice of preventive methods among Advanced Level students in Negombo area - 2020**

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**Introduction:** Non-communicable diseases (NCDs) are medical conditions or diseases that are non-infectious or non-transmissible. NCDs can refer to chronic diseases which last for long periods and progress slowly. They are the leading causes of death globally, accounting for 68% of the majority of deaths (38 million). More than 30% of cancers is preventable by avoiding risk factors including tobacco, being overweight or obese, low fruit intake, physical inactivity, alcohol, sexually transmitted infections, and air pollution. This study was conducted to assess the awareness of the family history of NCDs among Advanced Level (A/L) students in Negombo and a description of their exercise and dietary practices.

**Methods:** A descriptive, cross-sectional study was conducted among A/L students attending a private tuition class in Negombo area. Out of 398 pupils attending, 170 were chosen as the sample through simple random sampling. A self-administered questionnaire was used to collect data, which was then evaluated using descriptive and analytical statistics. The prevalence of both maternal and paternal diabetes mellitus, hypertension, ischemic heart disease, and hyperlipidemia is verified through the respondents' family history.

**Results and Discussion:** Among students, 74% consciously try to limit starch. There are 54% of the students who did not exercise at all. Only 8% of them often go to the gymnasiums which are yet to be easily accessible all over the district. Among students, 52% did not attempt to control weight and 5% did not know what BMI means. The analytical statistics revealed a significant association between the subject stream and the awareness of the importance of family history ( $p=0.009$ ) and doing exercises ( $p=0.001$ ). The female overweight rate is much higher than the male rate.

**Conclusion:** According to the findings, students have a poor understanding of the relevance of family history in general. Furthermore, it was discovered that students' understanding of NCDs was frequently lacking and that many of them did not adopt preventive measures. As a result, preventive programs must target this population segment on the aforementioned issues.

**Key Words:** *Awareness, NCD, Preventive methods, Students, Sri Lanka*

**Knowledge, attitudes, and practices regarding breast cancer among school teachers in Walasmulla educational zone**

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**Introduction:** Breast cancer is the most frequent cancer among women in Sri Lanka. Approximately 1,500 cases of breast cancers are diagnosed annually. Previous studies show that there is a lack of knowledge regarding symptoms, risk factors, available screening methods, and poor attitudes related to preventive/management methods of breast cancer. Teachers should possess adequate knowledge and attitudes regarding breast cancer as they are the people who involve bringing up new generations. The aim of this study, therefore, is to describe the knowledge, attitudes, and practices regarding breast cancer among school teachers in the Katuwana division in Walasmulla educational zone, Southern Province, Sri Lanka.

**Methods:** This descriptive, cross-sectional study was done among 372 teachers in the Katuwana division in Walasmulla educational zone using a pre-tested, self-administered questionnaire among female schools' teachers from eight schools selected randomly after stratifying them according to their distribution. Data were analyzed using SPSS version 20.0.

**Results and Discussion:** The participants had a moderate level of knowledge (67.74%) about the symptoms of breast cancer and on screening methods related to breast cancer detection. Knowledge about risk factors for breast cancer (41.68%) was inadequate. Awareness about clinical breast examination and mammography was low. Attitudes related to breast cancer were at a moderate level (74.87%). Practices on self-examination of breasts were inadequate. There was an association between educational level and awareness about the necessity of self-breast examination.

**Conclusion:** Although there was adequate knowledge on symptoms and screening methods, deficiencies were found in the risk factors for breast cancer. Self-reported practices on self-examination of breasts were inadequate. Attitudes related to breast cancer were at a moderate level. It is important to conduct breast cancer awareness programs for school teachers to enable early detection of breast cancer in the generations to come.

**Key Words:** *Breast cancer, Knowledge, Practice, Attitudes, School teachers*

**Knowledge and practice regarding prevention methods of needle prick injuries among nursing staff working at Provincial General Hospital - Badulla, Sri Lanka**

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**Introduction:** Needle prick injury (NPI) is a penetrating stab wound from a needle that may result in exposure to blood or other body fluids. It is a major cause of blood-borne infections transmitted among health care personnel. Having knowledge and proper practice of prevention methods are very important when handling needles. CDC estimates that about 385,000 sharps-related injuries occur annually among healthcare workers in hospitals. There are many studies conducted on prevention methods regarding NPIs. The use of double gloves, use of safety-engineered devices, and adoption of universal precautions are associated with a significantly reduced risk of occupational exposure. The aim of this study was to assess the knowledge and practices regarding preventive methods of NPIs among working nurses.

**Methods:** A descriptive, cross-sectional approach was used. A self-administered questionnaire was provided to 150 nurses at Provincial General Hospital - Badulla to measure knowledge and practices of preventive methods of NPIs. The obtained data were analyzed by Microsoft Excel software.

**Results and Discussion:** Results showed that 91% of nurses experienced NPIs and only 65% reported the injuries to the hospital infection control unit. The majority mentioned that they have not gotten any training-related infection control measures (70%); however, 81% were aware of what NPI is and 89% were knowledgeable that it could be life-threatening. Many nurses (86%, n=115) were aware that recapping needles after procedures was a risk and 60% of nurses were, respectively, unaware that always wearing gloves can prevent NPIs. 59% of nurses have never recapped needles after procedures, 62% always wore gloves when doing invasive procedures, 6% of nurses would always bend the needle by hand after procedures, and 35% have never used mechanical devices to pick up sharp instruments. It was also found that 42% mentioned that they never followed the hospital policy when having NPIs.

**Conclusion:** Blood-borne infections can be transmitted through NPIs among nurses. Avoidable practices like recapping needles were contributing to the injuries. Prevention of NSI is an integral part of prevention programs in the workplace and training of nurses regarding safety practices need to be an ongoing activity at hospitals.

**Key Words:** *Needle, Needle prick injury, Prevention, Blood-borne disease*

**Knowledge, practices, and barriers on breast feeding among currently breast-feeding mothers in the Dickwella MOH area**

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**Introduction:** Breast feeding is the feeding of babies and young children with milk from a woman's breast. Breast milk is the ideal food for the healthy growth and development of infants. In modern society, some mothers do not like to breastfeed and they always give extra food and bottled milk to their baby. An assessment of a mother's knowledge regarding breast feeding (KRBF) is necessary to modern society. Breast feeding is the normal way of providing young infants with the nutrients they need for healthy growth and development. Exclusive breast feeding is recommended up to six months of age, with continued breast feeding along with appropriate complementary foods up to two years of age or beyond. This study was conducted to assess the breast feeding knowledge, practices, and barriers among breast feeding mothers in the Dickwella MOH area, Sri Lanka.

**Methods:** A descriptive, cross-sectional study was done among a conveniently-selected 100 mothers who are attending pediatric clinics in the midwifery area in Dickwella MOH office by using a self-administered questionnaire. SPSS software was used for descriptive data analysis.

**Results and Discussion:** Out of 170, 75% (n=131) did not have good KRBF. Only a minority of mothers had good knowledge and practices regarding breast feeding (5.2%, n=9) and 4.1% (n=7) of mothers always have done breastfeeding correctly. Only 5.2% of mothers (n=9) identified the importance of first feeding breast milk to their babies. They also mentioned that they do not have an ideal KRBF (85.8%, n=146); however, they have done it based on their understanding. A minority (18.8%, n=32) mentioned that they know all the things regarding breast feeding, but only 2 mothers have identified correct practices among them (1.1%). Only 4.7% (n=8) of mothers had gotten KRBF from health education programmed in MOH and 98.8% (n=168) of mothers thought that they needed to participate in those programs.

**Conclusion:** The general knowledge regarding breast feeding among mothers seemed poor. However, it was somewhat better among younger mothers.

**Key Words:** *Mothers, Breast feeding, Knowledge, Practice, Barriers*

**Mothers' knowledge, attitudes and practices regarding oral hygiene of their children in Isuru Navodaya International School in Alawwa , Sri Lanka - 2021**

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**Introduction:** The development of caries in primary teeth further increases the risk of developing caries in permanent teeth. Therefore, it is essential to establish good oral hygiene early in life to ensure the development of strong and healthy teeth. Parents' knowledge, attitudes and practices are important to establish good oral hygiene in their children as they lead and supervise their children for tooth brushing. The purpose of this study is to assess mothers' knowledge, attitudes, and practices regarding oral hygiene of their children of less than five years in Isuru Navodaya International School, Alawwa in Sri Lanka.

**Methods:** A descriptive, cross-sectional study was done among a conveniently-selected 100 mothers with less than five years' old children selected from the Dambadeniya area in Sri Lanka using a self-administered questionnaire. All the analyses were done by SPSS software descriptively.

**Results and Discussion:** Out of the 100 approached mothers 97 responded with a response rate of 97%. According to the study, 10.30% (n=10) of mothers had good knowledge regarding their children's oral health, 53 (54.64 %) mothers had moderate knowledge. Degree holders showed better knowledge than mothers with an educational level below that (16.49%, n=16). Majority of the mothers had good practices and good attitudes toward child oral health (67.01%, n=65). The highest level of good practices was shown by those who have higher education backgrounds (82.47%, n=80). And also, 70.10% (n=68) of mothers tracked good oral practices for those who have one child. Thus, the mothers' age also influenced the oral health of their kids. The majority of mothers in their age 35-40 years showed good oral health attitudes (78.35%, n=96). Overall, the age group between 25-40 years' mothers displayed good attitudes towards the oral health of their kids. Furthermore, 96.90% (n=94) of mothers used to get information about oral health from local dentists.

**Conclusion:** According to the study results, the majority of mothers have moderate knowledge about their children's oral health in the Isuru Navodaya International School, Alawwa in Sri Lanka. However, in general, they followed good practices and attitudes towards their children's oral health. It can be assumed that they need more knowledge for further development.

**Key Words:** *Dental caries, Permanent teeth, Oral health, Knowledge, Practice*

**Knowledge and practices regarding foot ulcers among diabetic patients treated in Base Hospital Kahawaththa, Sri Lanka**

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**Introduction:** Diabetes is a chronic disease that happens either when the pancreas does not create enough insulin or when the human body cannot effectively use the insulin it produces. A diabetic foot ulcer is an open ulcer or sore on the skin that's sluggish to heal. These are common in patients with diabetic polyneuropathy. Diabetes Mellitus (DM) foot ulcers are a major cause of mortality in developing countries such as Sri Lanka. This study is, therefore, aimed to assess the knowledge and practice of foot care among diabetes patients attending Base Hospital Kahawaththa, Sri Lanka.

**Methods:** This is a cross-sectional study that took place between October and December 2020. A pre-tested, structured questionnaire was distributed among a conveniently-selected 100 the diabetic patients attending the clinic by the researcher. Based on the responses on the foot care knowledge questionnaire (10 questions), the score of over 75% (8-10 correct answers) was considered as good knowledge, if the score was 50%-74% (5-7 correct answers) it was considered as satisfactory, and if the score was less than 50% (<5 correct answers) it was considered as poor. Data was analyzed descriptively by using Microsoft Excel 2010 software.

**Results and Discussion:** Out of the 100 respondents, 55 were male patients and 45 were female patients, 36 of the patients were below the age of 50 years and 64 were 50 years old or over. Considering the knowledge of the study participants, 32 had good knowledge of DM foot care, 29 had a satisfactory score and 39 had poor knowledge of DM foot care. Considering the practices of the study participants, 34 had good knowledge of DM foot care, 25 had satisfactory scores and 41 had poor knowledge regarding DM foot care.

**Conclusion:** The outcomes of this research have highlighted the gaps in patients' knowledge and practice and emphasized the urgent requirement for a client friendly health educational intervention, coupled with regular health staff reinforcement to decrease the risk of DM foot ulcers and amputations.

**Key Words:** *Diabetes mellitus, Diabetic foot care, Foot ulcer, Knowledge, Practice*

**Knowledge and practices regarding breast feeding among mothers in the Seethawaka MOH area**

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**Introduction:** Nutritional problems among infants are a major public health issue in Sri Lanka. Inappropriate feeding practices have been identified as the main causative factor for this problem. Breast milk is uniquely superior as a source of nutrition for infants and breastfeeding has many benefits. This study aims to assess the knowledge and practices regarding breast feeding among mothers in the Seethawaka MOH area.

**Methods:** This descriptive, cross-sectional study was carried out among 170 breast-feeding mothers in the Seethawaka MOH area selected using a convenience sampling method. The questionnaire was administered to the mothers attending the child clinic in each midwifery area. The questionnaire took 30 min on average to complete. The group was strictly instructed not to share or discuss the tool with other co-workers. SPSS statistical package was used to analyze collected data.

**Results and Discussion:** Out of 170, 75% (n=131) had poor knowledge regarding breast feeding (KRBF), %2 (n=9) of mothers had good knowledge and practices regarding (BF) and 2.5% (n=7) of mothers always are breastfeeding correctly, where only 2% (n=2) identified the importance of first feeding of the baby (p=0.01). Majority of the respondents (79%, n= 146) said that they have done breast feeding even though they do not have accurate KRBF, whereas only 17% (n=32) said that they know all the things regarding BF. However, only two respondents have identified correct practices among them. Only 4% (n=8) of mothers had gotten KRBF from health education programmes in the MOH area and 96% (n=168) of mothers thought that they needed to participate in those programs.

**Conclusion:** The general knowledge regarding breast feeding among mothers seemed poor. But it was somewhat better among young mothers.

**Key Words:** *Knowledge, Breast feeding, Practices, Survey, Mothers*



**Prevalence of obesity among grade seven schoolchildren in Colombo 07 area**

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**Introduction:** Obesity is defined as abnormal or excessive fat accumulation that may impair health. They are major risk factors for several chronic diseases, including diabetes, cardiovascular diseases, and cancer. Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify overweight and obesity in adults. This study aims to assess the prevalence of obesity among grade seven schoolchildren in the Colombo 07 area.

**Methods:** A descriptive, cross-sectional study was conducted among a conveniently-selected sample of schoolchildren. A validated, semi-structured questionnaire with 25 questions was used to collect data as an interviewer-administered questionnaire and measurements of height and weight were taken. A Microsoft Excel data sheet was used to enter data and later analyze the collected data.

**Results and Discussion:** There were the same findings, 32% for overweight, obesity and normal for the BMI of children, whereas 4% were underweight. When considering what kinds of foods they have, fish and meat were the foods they had taken more for their meal (34%). There also were a number of vegetarians (10%). It was found that more than half of students were performing exercises (66%), whereas 34% of students did not perform any form of exercises. When discussing the main causes for obesity, 26% of respondents answered as excessive food intake, which was the lowest response.

**Conclusion:** Students must take meals with proper nutritional value and take meals at the correct time and they must take more natural foods and beverages minimizing the consumption of oil, sugar, and carbohydrate-rich foods. They should also be encouraged to exercise daily. They must also be given awareness regarding childhood obesity and a record of their BMI.

**Key Words:** *Obesity, Chronic diseases, Cardiovascular diseases, Cancer, Schoolchildren*

**Knowledge and attitudes about immunization among guardians under 5 years' old children in the Kekanadura MOH area**

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**Introduction:** Sri Lanka's national immunization program is frequently quoted as one of the strongest, not only in the region but also in the world. The national expanded program of immunization (EPI) has an excellent record, with an extremely low incidence of EPI-related conditions and high coverage of all EPI vaccines. However, unless the country pays attention to key issues of programmed quality and timely introduction of newer vaccines according to the needs, it could lose the advantages it has gained in disease control over the last 30 years. This study showed that successful immunization of children depends highly on guardians' existing knowledge and positive attitudes regarding childhood immunization.

**Methods:** This descriptive, cross-sectional study was conducted among the guardians of children under 5 years residing in the Kekanadura MOH area in Matara, Sri Lanka. A sample of 100 participants was selected conveniently. A self-administered questionnaire containing a different set of questions regarding knowledge and attitude on immunization programs was used for data collection. The data was analyzed using statistical software namely SPSS and Microsoft Excel.

**Results and Discussion:** The knowledge on immunization was moderate (78%) among the total study population, and 22% of participants had poor knowledge regarding vaccination. Over half of participants did not know about the side effects of vaccination (51%) and the other 49% of participants know the side effects of vaccination. The majority (76%) of the participants had positive attitudes and 24% of participants had negative attitudes regarding vaccination.

**Conclusion:** Moderate level of knowledge among the majority of the guardians of children under 5 years reflect upon their positive attitude and participation in the vaccination program. Essentially, most of the guardians of children under 5 years considered immunization as an essential part of childhood health.

**Key Words:** *Immunization, Knowledge, Attitude, Guardian, Kekanadura*

**Knowledge and practices regarding oral health status among pregnant women in a selected antenatal clinic in Sri Lanka**

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**Introduction:** Many physiological conditions in women can bring some reversible changes in oral health. A number of oral changes are inevitable during pregnancy. Pregnant women are particularly susceptible to gingival and periodontal diseases. In addition, they may not experience symptoms until advanced disease stages, thus resulting in increased prenatal risk. Aim of this study is to assess the knowledge and practices regarding oral health status among pregnant women in selected antenatal clinics.

**Methods:** The descriptive, cross-sectional study design was used to explore the pregnant women's level of knowledge and practice of oral health status by using a self-administered questionnaire. The sample included 100 pregnant women who were aged between 18 to 45 years who had attended to selected antenatal clinics located in Yatiyantota, Sri Lanka. Convenience sampling technique was used to select the sample. Gathered data was analyzed descriptively.

**Results and Discussion:** When considering participants' knowledge about oral health status, 83% of the respondents considered oral health not to be important. Further, 87% of them did not know about exposure to dental radiation hazards during pregnancy period and 13% of them have heard about it. In this study, the majority of the respondents (76%) were unaware of gum disease. Majority of participants (77%) didn't know pregnant women's poor oral health may contribute to low birth weight infants and it may lead to poor pregnancy outcomes. The present study revealed that most of the participants (67%) changed their toothbrush every 3-5 months. About 74% of the women were brushing their teeth twice a day and the majority of them (93%) used fluoride toothpaste. The study revealed that the majority (65%) of the participants had difficulty accessing dental treatments. According to those results, a present study showed that participant's overall oral health practice was poor.

**Conclusion:** According to this study, providing oral health education in clinics and advocating affordable oral health services for all pregnant women should be considered. Education of oral health should be a part of regular antenatal care. Public policies that support comprehensive dental services for vulnerable women of childbearing age should be expanded.

**Key Words:** *Antenatal care, Knowledge, Oral health, Practice, Pregnancy*

**Assessment of dietary habits and BMI among Ordinary Level students in Moragahapallama area, Ampara district**

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**Introduction:** Dietary habits contribute to overall health and well-being of young people, especially for their growth and cognitive development. Body mass index (BMI) is related to major threats to health of young people. Students with higher stress levels, which is common during in the current times, may contribute to changes in dietary behaviors that lead to weight change. The aim of this study is to assess the dietary habits and BMI of Ordinary Level students in Moragahapallama area in Ampara district, Sri Lanka.

**Methods:** A cross-sectional, quantitative study was conducted among a conveniently-selected sample of 200 Ordinary Level students aged between 16-18 years in Ampara district, Sri Lanka. Data collection was done using a self-administrated questionnaire to describe their dietary habits according to gender, age, and BMI. Data was analysed inferentially using SPSS software.

**Results and Discussion:** The majority of the student take three meals per day (85%). Small amount (13%) of students would take 4-5 meals and 2% of students would consume only 1-2 meals per day. These students would mainly get their meals from canteens. Mean of dietary diversity score (DDS) for men and women were 6.23 and 6.50 ( $p=0.06$ ), while dietary diversity score with portions (DDSP) was 3.26 and 3.17 respectively ( $p=0.24$ ). Food variety score (FVS) values were significantly different between men and women 9.55 and 10.24 ( $p=0.002$ ). Dietary diversity among Sri Lankan adults was significantly associated with gender, residency, ethnicity, and education level but not with diabetes status. As dietary scores increased, the percentage consumption was increased in most of food groups except for starches.

**Conclusion:** Although high dietary diversity is widely recommended, public health messages should emphasize to improve dietary diversity in selective food items.

**Key Words:** *Maternal nutrition, Knowledge, Attitudes, Practices, Pregnant mothers*

**Impact of social media on adolescents' mental health in Dunuwila GS division,  
Central province, Sri Lanka**

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**Introduction:** Previous studies have shown that social media and social networking activities have both good and bad impact on children's mental health. Recently, as social media has been widely used by children and adolescents, there is a risk from social media towards the health and well-being of children and young people. Therefore, the present research study was conducted to assess the impact of social media on adolescents' mental health.

**Methods:** The study design was a descriptive, cross-sectional study and convenience sampling method was used. A total of 260 adolescents, both male and female, aged 10 to 19, were included in the study who were enrolled in school or have finished their ordinary level education. Consent from the guardian and assent forms from the students 16-18 were taken. The information was gathered using a pre-tested self-administered questionnaire and analysed descriptively.

**Results and Discussion:** According to the research findings, the majority of the respondents (55.4%, n=144) were females. Analyzed data shows that the majority of the adolescents have used Facebook (42.6%, n=111) and that most of the students have used social media platforms to download music videos (39.6%, n=103). The majority of the students thought that social networking sites can be effective in psychological relaxation (78.0%, n=203). However, many of them also were aware that excessive usage of social media could cause mental health disorders and non- communicable diseases (65.0%, n=169).

**Conclusion:** The majority of the participants used social media to download music videos and to connect with friends, develop interpersonal relationships, communicate with one another, and to get a psychological relaxation. Majority of them are aware of social media's addiction and its impact on their well-being. Topics such as how to use social networks efficiently, what are the benefits of using social media, what are the risks of using social media, and ways adolescents can utilize it for entertainment and educational purposes need to be covered in awareness programs in future studies.

**Key Words:** *Social media, Adolescents, Mental health*

**Parental awareness on childhood fever and antipyretic usage among parents with children under five years**

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**Introduction:** Fever is considered as a physiological response which is characterized by the increase of normal body temperature. Fever is also a common cause in children for medical consultation. Parents having a phobia towards fever has led to the misuse of antipyretics. Aim of this study was to assess parental awareness on childhood fever and antipyretic usage among parents who were attending in ward care in the pediatrics professorial unit of the teaching hospital in Peradeniya.

**Methods:** This study was a descriptive, cross-sectional study conducted to understand parental belief, attitudes and management of childhood fever. A questionnaire consisting of 44 closed-ended questions was distributed among a conveniently-selected 100 parents from the pediatric ward of teaching hospital of Peradeniya, who had children under five years.

**Results and Discussion:** The majority (80%) of the respondents were females. Among all the respondents, 70% were in the age group of 18 to 29. Majority of the participants had reasonable knowledge about the thermometer and its usage. Only 15% of the participants had no idea about the working condition of the thermometer. Considering the human errors, 40% of the participants lacked knowledge about fever and 40% of the parents lacked knowledge regarding antipyretics. In addition, 30 participants had no idea that different times of the day could show different temperature readings while 34% of the participants had no knowledge on the activities involved to reduce the temperature. This study found that most of the parents have poor knowledge on childhood fever and antipyretics usage. It was also found that they administered antipyretics based on the age and not according to the body weight of the child.

**Conclusion:** It was found through the study that most of the participants needed proper education regarding childhood fever and antipyretic usage. In addition to that, awareness sessions on how to act accordingly when temperature variations occur in children has to be conducted among parents.

**Key Words:** *Antipyretics, Fever, Temperature, Knowledge, Parents*

**Knowledge, attitudes and practices towards infection control among working nurses in Sri Lanka**

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**Introduction:** Infection control practitioners are responsible for the prevention of infectious outbreaks in the healthcare settings and the management of avoiding occupational exposure. In resource-limited environments, healthcare-associated infections are more common compared to developed countries. Increased prevalence of antimicrobial-resistant bacteria, leading to misuse of antibiotics, increased hospital-acquired infection rates, and increased problems following surgery and treatments are main concerns due to that. This is widely seen in Sri Lanka due to inadequate or unavailability of infection control experts in hospital and clinical settings. This study assesses the knowledge, practice, and attitudes of Sri Lankan nurses on infection control.

**Methods:** A descriptive, cross-sectional study was done through convenience sampling among 200 nurses who work in general hospital Vavuniya and attending higher education in a private healthcare institute. A self-administered questionnaire was used to collect data and data analysis was done using SPSS statistical software package version 23 and Microsoft Excel.

**Results and Discussion:** The majority of the participants (93%) were female nurses between the ages of 23 and 35. Nearly one third of the participants (63%) had an excellent understanding regarding infection control. The majority of the participants (66%) had a good attitude toward infection control. Infection prevention is practiced well by over half of the participants (56%).

**Conclusion:** In general, the nurses who responded had a decent understanding regarding infection prevention and control. Participants in this study demonstrated a good attitude towards infection management and preventive techniques for a variety of infections. However, there were about one third of the respondents who required an upgrade in knowledge or skills in controlling and managing infections.

**Key Words:** *Infection, Nurse, Knowledge, Attitude, Practice*

**Awareness regarding iron deficiency anemia among schoolchildren in Sri Palee College, Horana, Sri Lanka**

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**Introduction:** Iron deficiency anemia is the most common health problem among Sri Lankan schoolchildren. Iron deficiency occurs when the body does not have enough of the mineral iron. This leads to abnormally low levels of red blood cells. Iron deficiency anemia leads to slowed growth and development, frequent infections, and behavior problems in children. This study aims to assess the awareness regarding iron deficiency anemia among schoolchildren of Sri Palee College, Horana.

**Methods:** This study was a descriptive, cross-sectional survey research. The research was conducted among a conveniently-selected 150 schoolchildren of grades 12 and 13 with a similar educational and exposure background in Sri Palee College. A self-administered questionnaire was distributed among the sample for the data collection process. The data analysis was done with the aid of Microsoft Excel 2010 software.

**Results and Discussion:** According to the results, urban residents account for 56.6 % of responses, while rural residents account for 13.3 % and 26.6 % live in semi-urban settings. Most guardians of them were well educated. According to this study, only 1.3% of respondents knew what iron deficiency anemia means. Unfortunately, 98.7% of respondents didn't know what iron deficiency anemia means. The least number of respondents were aware of causes, signs, and symptoms, risk factors and preventive matters of anemia.

**Conclusion:** According to this study, it was evident that the awareness regarding iron deficiency anemia and the prevention among schoolchildren was very low. There needs to be awareness campaigns conducted and interventions implemented to minimize the incidences of iron deficiency anemia and its complications.

**Key Words:** *Iron deficiency anemia, Schoolchildren, Knowledge, Practice*



**Study on factors affecting non-compliance of treatment among adult patients with asthma in a medical clinic at District General Hospital - Matara, Sri Lanka**

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**Introduction:** Asthma is a common chronic inflammatory condition of the lung airway. Compliance with medication is essential for the treatment. Non-compliance of treatment could include underuse, overuse and erratic use of medications. Risk factors such as sensation to irritants and allergens and being overweight are currently under investigations. The aim of this study was to identify the factors affecting non-compliance among asthmatic patients attending a medical clinic in district general hospital (DGH) - Matara.

**Methods:** This study was a descriptive, cross-sectional study. A coded questionnaire which addressed the socio-demographic characteristics, knowledge of the features and complications of common asthma and control of the asthma was distributed among a conveniently-selected 100 asthma patients, aged between 18 to 60 years, who attended to medical clinic of DGH Matara and data analysis was done using SPSS and Microsoft Excel software.

**Results and Discussion:** Out of 100 participants, the majority (n=63) were females. The mean ( $\pm$ SD) age of patients was 68.41 ( $\pm$ 9.64) years and the majority were in the age group of 60-70 years. The present study revealed that most patients (65%) did not adhere to the prescribed treatment and forgetfulness (52.6%) was the major cause. Though the study showed mostly men were non-compliant to the medication, there was no significant relationship between adherence and gender ( $p>0.05$ ). The prevalence of anxiety and depression were suggested to be higher in women with asthma and these psychiatric comorbidities have been independently linked with non-compliance. Poor adherence was observed in those patients having less understanding of their illness. They believed that the disease was incurable and had less belief in the prescribed medications.

**Conclusion:** It can be concluded that the majority had poor knowledge regarding asthma and its treatments. Therefore, awareness regarding the effects of non-compliance needs to be improved. Further interventions need to be implemented to improve the compliance among the clients.

**Key Words:** *Adults, Asthma, Factors, Knowledge, Non-compliance*

**Assessment of knowledge and associated factors regarding colostomy care among staff nurses working in Apeksha hospital, Maharagama, Sri Lanka - 2021**

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**Introduction:** A colostomy is the creation of a stoma of a part of the colon (large intestine), where the intestine is carried through the abdominal wall and attached to the skin, through which normal intestinal feces are diverted by the stoma instead of the anus. The care delivered to cancer colostomy patients is a rather complex process. Improving the quality of life of the patient is the main purpose of staff nurses in oncology wards. Knowledge and skill of colostomy care of nurses directly affects the patient's quality life. This research is conducted to assess the knowledge and associated factors regarding colostomy care among staff nurses in Apeksha hospital, Maharagama, Sri Lanka.

**Methods:** A descriptive, cross-sectional study was done. Convenience sampling was used to access a sample of 200 nurses to the study. Nurses were selected from all the units in Apeksha hospital, Maharagama. A structured self-administered questionnaire was used to collect the demographic data, knowledge, practices and associated factors related to colostomy care and data analysis was done descriptively.

**Results and Discussion:** In general, 81% of respondents had knowledge regarding colostomy. Nurses with higher nursing experience and who have treated more than ten patients in the past six months were more knowledgeable (58%). Only 20.5% of nurses had attended colostomy treatment training in the previous six months and only 16.5% of nurses have referred to colostomy-treatment related literature and gained more knowledge through talking to experts in the field.

**Conclusion:** According to the survey, more than half of the nurses have a strong understanding of colostomy treatments. To enhance knowledge regarding colostomy therapy, a specially-designed training program must be implemented.

**Key Words:** *Colostomy, Nurse, Knowledge, Evidence-based practice*

**Knowledge, attitude, and practices of contraception among the pregnant mothers in a selected area in Sri Lanka**

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**Introduction:** It is critical to understand the awareness of family planning and the proper utilization of contraceptives. This is an important indicator for reducing maternal and neonatal mortality and morbidity. It also plays an important role in promoting the reproductive health of women in an underdeveloped country. This study aims to identify the level of knowledge, attitudes, and practices of family planning among pregnant mothers in a selected area in Sri Lanka.

**Methods:** A cross-sectional, descriptive study was conducted among a conveniently selected 100 pregnant mothers from the Narahenpita MOH area. Mothers who had special conditions and who were absent from the clinic were excluded from this study. A semi-structured, self-prepared, self-administered questionnaire was used to collect data. Descriptive statistics were used to interpret the data and the gathered data was analyzed using SPSS 23.

**Results and Discussion:** Most of the respondents were of the age 18–25 years and almost all of the respondents had heard of contraception. The majority of the respondents (69%) were married. The majority of the respondents (75%) accepted the necessity of contraceptive usage. When asked who is responsible for contraceptive use (56%), respondents stated that both partners must be responsible for contraceptive use. Most of the respondents (59%) agreed that the popular emergency contraceptive method is tablets. Only one-third of the respondents (32%) stated that the family planning centers were a major source of information. A positive correlation was found among knowledge, attitude, and practice of contraception ( $p < 0.05$ ).

**Conclusion:** The study concludes that contraceptive practices were relatively low among participants, and pregnant mothers in this study were aware of and had knowledge on contraception. However, their utilization of contraception is relatively low. Other important facts that emerged include the religious beliefs that impact contraceptive use. Recommendations to improve conditions would be to establish user-friendly reproductive and sexual health services to improve uptake of contraception methods and improve education on contraception and counseling to solve these problems.

**Key Words:** *Attitude, Contraception, Knowledge, Practice*

**Knowledge, attitude, and practices regarding the prevention of anemia among pregnant mothers in Gampola MOH area**

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**Introduction:** The number of anemia among pregnant mothers in the Gampola area, is considerably increasing. The present study aims to determine pregnant mothers' knowledge, attitude, and practices regarding anemia in pregnancy in Gampola MOH, Sri Lanka.

**Methods:** Quantitative cross-sectional observational study was conducted and a convenient sampling method was used. A self-administered questionnaire was circulated among 100 anemic pregnant mothers in the MOH clinic. Data analysis was done via SPSS and Microsoft Excel.

**Results and Discussion:** Among the participants 44% were in age between 31- 35 years. 46% were Buddhist. All Pregnant mothers were educated, 64% received secondary education. 42% had an Hb level of 7-10 g/dl. 61% knew proper dietary habits. 56% knew the correct tea intake. 62% knew how often fruits, vegetables, and milk intake should be taken. 51% knew the need for daily exercises. 66% were using iron supplements. A large number of the population is not willing to take iron supplements. This could be attributed to many causes such as cultural beliefs, lack of trust in health care practitioners, and lack of counseling by the medical personal. 57% have a daily intake of iron supplements. 54% take their iron supplement before meals. 73% of mothers knew about the intake time of iron supplements. The majorities are realizing the importance of iron supplements in their diet, but still, there are a number of women who do not see any benefits of taking iron supplements, the lack of education and counseling given by elders in the community and health practitioners. 60% have a general knowledge regarding anemia during pregnancy. 62% get the average hours of rest per day. 59% of mothers take measures to manage anemia during pregnancy.

**Conclusion:** Iron deficiency can be overcome by educating and distributing the iron supplements among pregnant mothers and enhancing their access to iron-rich foods.

**Key Words:** *Knowledge, Practice, Attitude, Iron supplement, Anemia*

**Attitudes and barriers related to research writing among nurses in Provincial General Hospital – Badulla, Sri Lanka**

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**Introduction:** Despite the increasing quantity and improving quality of nursing research, incorporating research consequences into nursing practice remains a significant challenge. The exam is aimed at evaluating the obstacles, facilitators, and nurses' attitudes in the direction of nursing research utilization.

**Methods:** Descriptive study designs were used. A convenient sample of 170 nurses was taken from the medical, surgical, and pediatric units of Provincial General Hospital, Sri Lanka, in the period from February 2020 to April 2020. An interviewing questionnaire sheet turned into a record series used for records, which is divided into four elements: component 1: socio-demographic statistics of nurses and their studies developed by the researchers; part 2: nurses' mindset toward nursing studies utilization device evolved by Edit, (2008) and Majid et al., (2011); element 3: obstacles to nursing studies usage device evolved by Funk et al., (1991); and element 4: facilitators nursing studies utilization device developed by Hutchinson and Johnston, (2004).

**Results and Discussion:** Among the sample, 99% are male and female nurses between the ages of 23 and 55; with a three-year diploma in education, and 1 nurse is a graduate. They are all registered nurses. 90% of these nurses have a positive attitude towards research utilization, and 87.1% say they want evidence-based practice through research. Among them, 62% have language barriers, 88.2% have constraints, and 89% said research is not mandatory for training and promotions. Only 27.6% attend professional training and 29% attend research workshops. On the other hand, 6% of the research has been utilized. About 20% have read only one research paper, and only 5% have read more than three.

**Conclusion:** The majority of nurses have a positive attitude and would like to use it for nursing practice. However, due to the limited time available for nurses, research is not mandatory for training and promotions, and proper guidance and language issues reduce their research submission. By motivating and training them properly and facilitating them during their duty hours, they can utilize more research and apply it to practice so that they can get quality nursing care.

**Key Words:** *Barriers, Facilitators, Nurses' attitude, Nursing research utilization*

**Assess knowledge on daily fluid intake among nursing officers in District General Hospital - Nawalapitiya**

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**Introduction:** Daily fluid intake linked with health, wellness & performance. The aim of this study is to investigate the daily fluid intake, what are the types of beverages taken daily, assessed the knowledge about study regarding daily fluid intake.as well as health problem related to inadequate fluid intake of nursing staff at District General Hospital Nawalapitiya.

**Methods:** The study is hospital based cross-sectional survey. Self –administrated questionnaire was used to collect the data. Questionnaire contains questions which assess the knowledge and practice among 125 nursing staff. The collected data were analyzed by statistical package of SPSS 22 version software. This data used for calculate descriptive statistic of mean, SD, percentage.

**Results and Discussion:** As the results of the study, 84% of the participant was female nurses and 16% was male nurses. Majority of the participants were within 31-40 years age range (52.8%), there were 24% of participants within 41-50 years age range, 16.8% of participant 20-30 years age and 6.4% of participants were more than 51-60 years old. Majority of the participants come from home (64.8%), over one third of the participants were in the 45-55 weight range (39.2%). 84.8% of the participants were diploma holders in nursing, 15.2% of participants were B.Sc. Nursing degree holders. 59.2% had high awareness, 39.2% had moderate awareness and 1.6% had low awareness about daily fluid intake. Majority consumed fluid only after meal (57.6%), majority consumed 500 ml-1000 ml per day (65.6%).

**Conclusion:** In conclusion Fluid are essential nutrient for all know forms of life and the mechanisms by which fluid and electrolyte homeostasis is maintained in humans are well understood. The reality is that most people actually consume plenty of beverages each day, just not in the form of pure water. A behavioral intervention that consists of verbal prompts and beverage preference compliance should be advised.

**Key Words:** *Knowledge, Intake, Recommendation, Fluids, Nurses*

**Quality of life among smear-positive pulmonary tuberculosis patients in central chest clinic, Colombo district, Sri Lanka - 2019**

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**Introduction:** Tuberculosis continues to be a major public health problem throughout the world including Sri Lanka. Nearly one third of the world's population is infected with Mycobacterium tuberculosis (MTB) and hence at risk of developing active disease. The aim of this study was to evaluate the impact of TB treatment on quality of life of new smear positive pulmonary tuberculosis (PTB) patients in Colombo district.

**Methods:** The descriptive cross-sectional study was conducted between February and March 2020. The study population consisted of diagnosed tuberculosis patients above the age of 15 years, and the quality of life scores of 100 tuberculosis cases were measured by the SF-36 questionnaire on treatment in the intensive phase, continuous phase, and at the end of treatment and were compared with controls. Patient records were retrieved from the TB patient registry for the Colombo district. Systematic sampling was used to identify patients to be invited to the study. An interviewer-administered questionnaire was used for data collection. Data was collected on social status. According to the demographic analysis, the percentage of male patients is higher than the female percentage.

**Results and Discussion:** When comparing the age group of patients' 30-49, the group has more patients than the other groups. Most of the TB patients' monthly income range is LKR 25,000-50,000. When compared to other types of smoking, cigarettes have a 77 percent success rate. Most TB patients have diabetes mellitus more than other diseases. When discussing the sputum smear status, most patients get a negative after two months of treatment. Most TB patients are recovered by treatments, where 47% of patients indicate that they feel better with treatments.

**Conclusion:** Majority of the TB patients had diabetes mellitus. Although TB patients have unhealthy lifestyles, TB treatment seems to be effective. There needs to be further studies done regarding ways of improving the quality of life of TB patients and appropriate interventions has to be implemented.

**Key Words:** *Smear-positive, Tuberculosis, Quality of life*

**Knowledge, attitudes, and practices of venous cannulation techniques and local site infections among nurses in District General Hospital - Trincomalee**

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**Introduction:** Modern world hospitals maintain a standard intravenous cannulation technique in both developing and developed countries. Most of the interventions and prevention strategies such as insertion, monitoring, and assessing Peripheral Venous Catheter (PVC) sites are part of routine nursing care. Therefore, nurses need to be aware of their level of accountability and complications of cannulation when performing it. The aim of this study was to assess the knowledge, attitudes, and practices towards techniques of peripheral intravenous (IV) cannulation and local site infections among nurses in Trincomalee Hospital.

**Methods:** A quantitative non-experimental prospective study design was conducted on a total of 160 registered nurses who have at least one year of experience as a staff nurse in District General Hospital - Trincomalee. A probability simple random sampling method was used for the selection procedure. A self-administered questionnaire was distributed among study participants. The data obtained were analyzed using SPSS statistical software version 24.

**Results and Discussion:** The majority of the participants 70%, (n=112) were female nurses. The majority of the respondents 82.5%, (n=132) were aged 30 – 49 years. According to the study, most of the nurses 66.4%, (n=106) had excellent knowledge about intravenous cannulation techniques and local site infection. Although 8.7% (n=14) of nurses had poor knowledge, 42.5% (n=68) of nurses strongly agreed that maintaining aseptic techniques helps to prevent infection. Moreover, 49.4% (n=80) of nurses agreed that an attempt at cannulation increases the risk of cannula site infection.

**Conclusion:** Cannula-related infections remain a major problem in the health care setting, and it is associated with significant morbidity, mortality, and additional medical cost. The nurses have to play a major part to reduce cannula-related infection. These research findings also support an association to reduce cannula site infection when the nurses have proper knowledge, practice, and attitude of intravenous cannulation technique.

**Key Words:** *Knowledge, Attitudes, Practices, Cannulation techniques, Nurses*



**Assessment of knowledge and practices of mothers regarding home-care management of children with nephrotic syndrome in teaching hospital Karapitiya, Sri Lanka**

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**Introduction:** Nephrotic Syndrome is a kidney disease. With collection of symptoms such as proteinuria, hypoalbuminemia, edema, hypercholesterolemia. Parents play an important role in the care of the children with nephrotic syndrome, taking care of their food, water intake, and possible changes in the clinical picture with a view to their propensity to infections. The aim of this study was to find out the knowledge and practice of mothers regarding home management of children with nephrotic syndrome.

**Methods:** A quantitative cross-sectional study was carried out at the pediatric nephrotic unit of Karapitiya teaching hospital (ward 1, 2 and 36). 60 mothers of children aged 1-14 years diagnosed with nephrotic syndrome were selected and data were collected through a constructed questionnaire. The data were statistically analyzed using SPSS software.

**Results and Discussion:** Cross tabulation of knowledge vs medication for children with nephrotic syndrome showed that the majority (73.3%) of mothers had satisfied knowledge of medication. Out of the total, 26.7% of mothers did not have satisfactory knowledge about Medication. Cross tabulation of practice vs treatment for nephrotic syndrome showed that the more mothers had poor practice of treatment (40%) while 26.7% of them had a moderate practice towards treatments. Cross tabulation of practice vs knowledge showed that more mothers had satisfied knowledge (65%). Out of 60 mothers, 35% of them had poor knowledge. Assessment on good and poor practices related to the disease had the same percentage of 43.3%, which was higher than moderate practice. According to the Monte Carlo Simulations Test, there was no association between practices and knowledge of mothers whose children had nephrotic syndrome at the 0.05 level of significance since the p value obtained was 0.078.

**Conclusion:** It was concluded from current study results that the mothers had satisfactory average knowledge and poor practices regarding home care management of children with Nephrotic syndrome

**Key Words:** *Children, Knowledge, Mothers, Nephrotic syndrome, Practice*

**Knowledge and attitudes regarding human immunodeficiency virus among the youth aged 15-24 years living in slum areas in Colombo district, Sri Lanka - 2021**

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**Introduction:** Human immunodeficiency virus (HIV) / acquired immunodeficiency syndrome (AIDS) among young people living in slum areas of Sri Lanka is increasing because of population aging and unhealthy lifestyle. Knowledge and positive attitudes on HIV / AIDS are keys for its prevention. The main objective of this research is to assess the knowledge and attitudes of the Human Immunodeficiency Virus among the youth aged 15-24 years living in the slum area in Colombo District in Sri Lanka 2021.

**Methods:** Quantitative descriptive design was utilized in this study to assess the knowledge and attitudes of the youth aged 15-24 years. This study was conducted among 150 randomly selected participants in Mihindusenpura Division in Colombo district in Sri Lanka. Those who consented to participate were given a self-administered questionnaire to gather data. The data were collected on a pre-coded questionnaire and analyzed using Microsoft Office Excel 2013.

**Results and Discussion:** The results showed that the majority of participants (40%) had poor knowledge of HIV / AIDS. 14.67% had very poor knowledge and 29.33% had sound knowledge. Only 4% of the study sample showed good knowledge. Overall, the knowledge on HIV/AIDS was low and the average correct response rate was 51.7%. The knowledge on epidemiology was particularly poor, such as the mode of transmission including mosquito or tick bites (58.4%) and staying with people who have HIV/AIDS.

**Conclusion:** It was identified that the knowledge on HIV/ AIDS is poor among the youth aged 15-24 years in this slum area in Colombo District and attitudes towards HIV are good in certain aspects and poor in some aspects, suggesting the need for programmed HIV awareness in this population.

**Key Words:** *Human immunodeficiency virus (HIV), Acquired immunodeficiency syndrome (AIDS), Knowledge, Lifestyle, Youth*

**Sleep pattern disturbances and associated factors among patients admitted to chemotherapy wards in National Cancer Institute in Maharagama**

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**Introduction:** Recent research suggests, there is a prevalence of sleep pattern disturbances among cancer patients and such sleep pattern disturbances are associated with environmental and physical factors. The objectives of the study were to determine the prevalence of sleep pattern disturbances and associated factors among patients in chemotherapy wards at NICM and to identify the factors associated with sleep pattern disturbances among patients admitted to chemotherapy wards at NICM.

**Methods:** A descriptive cross-sectional study was carried out among conveniently selected 200 patients who were admitted to ward 25 at NICM. The average number of patients presented at a single unit daily was approximately 40 patients for 5 days. Data was collected using an investigator administered questionnaire. Data were analyzed using SPSS statistical software (version 23). Descriptive statistics and chi-square tests were used to analyze data.

**Results and Discussion:** Of the 200 participants, the majority of participants (52%) experienced some kind of sleep pattern disturbances. In this study, we found significantly associated factors for sleep pattern disturbances. Environmental factors such as noise 34.5% ( $p=0.000$ ), coldness 30% ( $p=0.002$ ), light at night 23.5% ( $p=0.001$ ), Physical factors such as pain 35.5% ( $p=0.001$ ), Cough 16.5% ( $p=0.001$ ), Urinary frequency 26.5% ( $p=0.001$ ) were significantly associated. Sleeping pills were also significantly associated with sleep pattern disturbances as most participants used sleeping pills 58% ( $p=0.001$ ).

**Conclusion:** Sleep pattern disturbance is a common issue among patients admitted to the chemotherapy wards in the NICM. Both physical and environmental factors are contributing to the problem. Action needs to be taken for minimizing environmental factors and modifiable physical factors.

**Key Words:** *Cancer patients, Sleep patterns, Sleep disturbances, Prevalence, Environmental factors*

**Knowledge, attitude and practices on exclusive breast feeding: A study conducted among lactating mothers in Fuvahmulah city, Maldives**

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**Introduction:** Exclusive breast feeding (EBF) is offering mother's milk to infants excluding water, juice, non-human milk or any food (except vitamins, minerals or medicines if needed) till six months of age. Lack of knowledge, negative attitudes and poor practices towards exclusive breast feeding have a vast impact on infant and maternal health. The general objective of this research study was to assess the knowledge, attitude and practices (KAP) on exclusive breast feeding in lactating mothers of infants aged 0-6 months in Fuvahmulah city from January 2020 to April 2020.

**Methods:** Quantitative descriptive research was used in this study. A purposive sampling technique was used to select the subjects. A total of 116 lactating mothers with infants aged 0-6 months were included in the study. A pre-tested self-administered structured questionnaire was used to collect data. Descriptive statistics were used to analyze the data collected using SPSS version 23.

**Results and Discussion:** It showed that the majority (93.1%) of the lactating mothers had adequate knowledge of exclusive breast feeding. 98.2% knew that only breast milk is enough for the baby until 6 months of age. The majority of the mothers demonstrated positive attitudes towards exclusive breast feeding. 92.2% believed that complementary foods are not necessary for the infant till 6 months and 66.3% believed that breast feeding does not affect the figure of the mother. 93.9% also believed that formula feeding is not convenient. Additionally, the mothers practiced good breast feeding practices. 58.6% of the mothers did not give anything except breast milk, 91.38% initiated breast feeding within one hour of delivery, and 67.2% fed their infant on demand. Overall, the study concluded that among 116 participants 84.5% had a good KAP score and 15.5% had a poor KAP score

**Conclusion:** The majority of the participants had good knowledge regarding exclusive breast feeding, had positive attitudes towards exclusive breast feeding and practiced good feeding practices that enhanced exclusive breast feeding. Even though the KAP score was good, it is recommended that conducting continuous health education programs on the importance of exclusive breast feeding and breast feeding in general for antenatal and postnatal women of Fuvahmulah city in order to improve their knowledge and thus promote good maternal and child health.

**Key Words:** *Exclusive breast feeding, Knowledge, Attitude, Practice, Mothers*

**Knowledge and attitudes regarding emergency contraceptive pills among undergraduate students of a private institute**

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**Introduction:** The emergency contraceptive pill (ECP) is a method of hormonal contraception, which is indicated after unprotected sexual intercourse when regular contraceptive methods are not used. It is an important area to study as there are higher rates of maternal deaths due to unsafe abortions in Sri Lanka. ECP can be a strategy to reduce them. The objective of this study was to assess knowledge and attitudes regarding Emergency Contraceptive Pills among undergraduate students of a private institute.

**Methods:** This descriptive cross-sectional study was conducted among 402 undergraduates using a pretested, self-administered questionnaire. Study participants were selected by stratified random sampling method. Data were entered and analyzed using Minitab version 14.

**Results and Discussion:** Among the total participants (n=402), only 69.1% had heard of ECP. The main source of information was reported as formal education 47.1%. From the total participants, less than half (45.5%) students knew that ECP was important in post rape. Among the study participants, 42.8% agreed to the idea that if ECP was readily available it might promote promiscuity among students. Most of the students (42.5%) thought that it was more effective to take ECP soon after unprotected sexual intercourse. Only 13.7% of students knew the correct time gap between the doses which was 12 hours. A higher number of students (57.5%) have not received information regarding the side effects of ECP. Meanwhile, 13.4% stated that ECP might prevent STIs and HIV. Among the total participants, only 25 (6.5%) had used ECP. Of the participants who had used ECP, 52% of them had experienced side effects. Only 23% knew about the side effects of ECP. It showed that age, gender and year of study and department had a significant effect on every aspect of knowledge and attitudes on ECP while religion did not have a significant effect on any aspect.

**Conclusion:** It can be concluded that general awareness of ECP was reasonably good among the study participants but the majority did not have sufficient knowledge on ECP for effective usage which signifies the importance of conducting awareness sessions among vulnerable populations

**Key Words:** *Emergency contraceptive pills, Knowledge, Attitude, Students, Undergraduates*

**A study on the mother's knowledge and practices regarding febrile convulsion among children in Handapangoda, Sri Lanka**

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**Introduction:** Febrile convulsion is defined as seizures occurring in children with fever in the absence of any brain pathology. It is usually a frightening experience for the caregivers and parents who in the bid to stop the seizure can apply harmful substances on the child before presenting to the hospital. This study was done to assess the level of the mother's knowledge and practice regarding the FC among mothers in Handapangoda, Sri Lanka.

**Methods:** A total of eighty mothers participated in this research. The research design was a descriptive cross-sectional survey. A self-administered questionnaire was used to collect data. Data was analyzed using Microsoft Excel version 2010 and IBM SPSS.

**Results and Discussion:** According to the majority of the mothers they have low knowledge, the percentage value 81.3% and 2.2% to 18.7% of mothers present the high knowledge of febrile convulsion. About 68.8% of mothers understand that it is not associated with evil spirits. Furthermore, a smaller number of mothers believed that supernatural spirits (2.2%) and brain damage (5.2%) are the causes for febrile convulsion. According to the practice of mothers regarding Febrile Convulsion. 44.4% of mothers were able to identify 98.4° F as the normal body temperature which is contrasting with the findings of the study done in may be due to the nature of the practice area assessed. Out of 80 mothers very negligible percentage had high knowledge and adequate above practice.

**Conclusion:** According to the findings of this study, it was concluded that mothers who have children, have mild knowledge regarding causes, signs and symptoms of febrile convulsion, but still some areas needed to be improved. Mothers require further education on alarming signs and symptoms of febrile convulsion rather than absolute temperature rises. Evidence based information about the care of a child with febrile convulsion is required as it will increase the self-confidence and reduce anxiety of mothers. Spending more time for educating and training parents on home management of febrile convulsion and conducting public awareness programs are timely needed.

**Key Words:** *Febrile convulsion, Knowledge, Education, Practice, Mothers*

**Knowledge, attitudes and practices towards diabetes mellitus among elders in Ganekolaniya grama niladhari division, Sri Lanka**

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**Introduction:** Diabetes mellitus (DM) is a metabolic disorder of multiple etiologic elements characterized by chronic hyperglycemia with disturbance of carbohydrate metabolism. It can play the essential role in the cause of morbidity and mortality through continued clinical consequence. Therefore, good knowledge, attitude, and practices of glycemic control are essential in promoting care, in increasing better therapeutic outcomes, and in the prevention and management of diabetes complications.

**Methods:** A cross-sectional study was carried out among the elders in Ganekolaniya Grama Niladhari division which is a remote area in Kurunegala district in North Western province. A stratified random sampling method was first used to identify suitable subjects. Data were obtained using a structured questionnaire with 45 close-ended questions, which contains different items like sociodemographic and knowledge, attitudes, practices towards glycemic control. Microsoft Excel was used to analyze collected data.

**Results and Discussion:** According to the results; the total 150 participants, 66 (44%) were males and 84 (56%) were female. Of the total, 49.72% had good knowledge, 52% had a good attitude and 38% had good practice towards glycemic control. According to the answers, 50% (n=74) had given incorrect answers about being overweight increases the risk of getting DM. Also the majority of them (79%) didn't involve themselves with regular exercises. Among the participants, 86% of them never had a diabetic diet (n=129). In variable logistic regression, occupational status and marital status were importantly associated with the knowledge of participants towards glycemic control. Occupational status, educational status, and marital status were significantly associated with attitude and practice towards glycemic control.

**Conclusion:** It is important to improve education and awareness of DM among the elders, as it's essential for controlling the disease and reducing its complications, by improving patient compliance to treatment and follow-up.

**Key Words:** *Diabetes mellitus, Metabolic disorder, Knowledge, Attitude, Practice*

**Factors influencing job satisfaction among nursing officers in a government hospital in Kalmunai, Sri Lanka**

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**Introduction:** Employee job satisfaction is the fulfillment, gratification, and enjoyment that comes from work. It is not just the money or the fringe benefits, but the feelings employees receive from the work itself. To improve the job satisfaction of nurses, identification of the influence factor and related problems on job satisfaction of nurses was important. The main objective of this research is to determine the factors that influence job satisfaction among nurses at base hospital Kalmunai.

**Methods:** This cohort study was a descriptive cross sectional quantitative study. A total of 140 nursing officers participated in this study after selecting participants from a random sampling method. Data was collected using a self-administered questionnaire. Data was analyzed using the SPSS 25 statistical package.

**Results and Discussion:** Among the 113 nursing officers, 70.8% were female nurse, as high percentage 33.9% of them were belong to 36 -45 years old age group, 53.1% of them hold the diploma education qualification, 55.7% of them had the more than 10 years working experience, only 4.4% had above super grade and mostly around 40.7% had the grad-1 category. 66.4% of them worked 12 -18 hours per day, 69% of them earned above Rs. 50,000 per month and their main income source was a nursing job. Overall job satisfaction was observed only 46% among the nursing officers. Gender significantly influenced the responsibility of the job at  $p=0.005$ . Age significantly influenced the working condition at  $p=0.001$ . Position of the nurse significantly influenced the interpersonal relationship at  $p=0.009$  and achievement of nurse significantly impacted on overall job satisfaction. No significant influences were observed among other factors.

**Conclusion:** Age and job title or position had positive impacts on the extrinsic factor of job satisfaction mainly on working condition and interpersonal relationships therefore extrinsic and intrinsic factors had impact on the job satisfaction and which impact would be in positive or negative.

**Key Words:** *Nurses, Job satisfaction, Factors, Influences, Gender*



**A study on assessing the knowledge, practices and attitudes of pregnant mothers about nutritional status during pregnancy in Nikaweratiya MOH area**

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**Introduction:** Maternal nutritional problems are one of the public health problems in Sri Lanka. The aim of this study was to assess a baseline level of knowledge, Practices and attitudes of pregnant mothers about nutritional status during pregnancy in the Nikaweratiya MOH area.

**Methods:** A cross sectional study was done among 100 pregnant mothers at a selected prenatal clinic. Stratified random sampling method was used and data collection was done via qualitative method by interviewing using a pre-tested questionnaire.

**Results and Discussion:** Among them 68% were between 21 to 30 years old. Study showed that 95% of participants knew their BMI. As anemia is a severe medical condition during pregnancy, only 38% of them had an idea about what anemia is and 62% didn't know about it. Among them, 63% didn't have any knowledge on foods which contain folic acid. Finely, 83% of them knew their latest hemoglobin level and 72% of them think frequent routine blood investigations are useful for getting an idea about their nutritional status. According to study, 88% are getting calcium supplements and 84% of them are getting iron supplements regularly. Only 3% of participants are doing regular exercises while 97% didn't.

**Conclusion:** As most of the pregnant mothers need to gain knowledge about nutrition important during pregnancy, they don't have a proper way to learn them. Arranging public health programs during weekends and holidays to increase the participation of couples who are expected to have a baby. Even though participants are having moderate knowledge and practices related to pregnancy, their knowledge needs to be developed, especially about anemia conditions and importance of physical exercises.

**Key Words:** *Pregnancy, Anemia, Folic acid, Nutritional diet, Exercises*

**Relationship between depression/anxiety level and DAS28-ESR value among rheumatoid arthritis patients at teaching hospital - Rathnapura**

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**Introduction:** Rheumatoid Arthritis (RA) is a chronic, severe immunological disease that affects inflammation, swelling, and pain in and around joints and other body organs. The joint destruction associated with RA can make daily activities difficult, leading to depression, anxiety, tension, and employment difficulties. The aim of this study was to identify the relationship between DAS28-ESR value associated with depression/anxiety level among patients with rheumatoid arthritis.

**Methods:** A descriptive cross-sectional study was conducted at orthopedic wards, orthopedic clinics and rheumatology clinic in Teaching Hospital Rathnapura, among 143 patients with RA to examine the association between disease activity score (DAS) 28 - erythrocyte sedimentation rate (ESR) value and anxiety and depression. A semi-structured questionnaire was used to gather demographic data, and the hospital anxiety and depression scale (HADS) was utilized to assess anxiety and depression. ESR was used to calculate the disease activity score. The data was interpreted using inferential statistics in SPSS 23 version.

**Results and Discussion:** The majority of patients (86%) were females between the ages of 46 and 60 years (52.4%). Among the 39 patients, there was a strong maternal family history. According to Spearman's correlation analysis, there was a positive correlation (0.348) between ESR value and Total Tender Joints (TTJ), as well as a positive relationship (0.386) between ESR value and Total Swollen Joints (TSJ). There was a significant correlation between DAS28-ESR and anxiety level ( $X^2(4) = 12.985, p < 0.001$ ). The correlation coefficient value of 0.225 revealed a positive association between DAS28 ESR value and depression, and 0.165 suggested a positive relationship between DAS28 ESR value and anxiety. In conclusion, there was a strong relationship between DAS28-ESR and anxiety level.

**Conclusion:** There was no significant association found between DAS 28 ESR Level and Depression level and there was a significant association between DAS 28ESR level and Anxiety level, according to the chi square analysis results, it is rational to generalize this finding to the state population.

**Key Words:** *Anxiety, Depression, Erythrocyte, Sedimentation, Rheumatoid arthritis*

**Knowledge and practice of menstrual hygiene management among adolescent school girls of age 13-17 Nalanda Girls' Central College - Minuwangoda**

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**Introduction:** Menstrual hygiene management is an important part of hygiene for women and adolescent girls between menarche and menopause. Although being an important issue regarding women and girls in the menstruating age group. Menstrual hygiene management is frequently overlooked in post-disaster responses. Additionally, there is incomplete evidence of menstrual hygiene management in altruistic settings. To assess awareness on menstrual hygiene management among adolescent school girls, to assess the level of knowledge of menstrual hygiene management, to assess the practices of menstrual hygiene management, to identify the attitudes of menstrual hygiene management.

**Methods:** This study was done as a descriptive cross sectional Convenience sampling technique was used with a standardized validated, Short Form (SF) self-administered questionnaire to determine menstrual hygiene practice. Microsoft EXCEL was used to analyze collected data.

**Results and Discussion:** There were 150 students participating in this study. There are no students who participate at age 13. 14% in age 14, 27% in age 15, 13% in age 16 and 46% students in age 17. According to the age there were students participating in grade 7 and grade 13. 17% in grade 8, 4% in grade 9, 25% in grade 10, 12% in grade 11 and 42% in grade 12. 85% of students missed their school attendance during their menstrual period and 15% students did not miss their school attendance during their menstrual period. 8% openly dispose of their used clothes and pads, 18% students discard menstrual items to the toilet and 74% properly discard used menstrual clothes and pads. 39% students were daily bath on menstruation days and 61% students only got body wash only. 78% of students were eating fish or meat during their menstrual days and 22% of students were not eating fish or meat. 65% of students were eating fatty foods on menstruation days and 35% of students did not eat. 69% students were participating in religious programs on menstruation days and 31% not participating. 71% were participating in religious programs on menstruation days 29% were not participating in religious programs.

**Conclusion:** For improving menstrual hygiene management and knowledge on menstrual hygiene students should be educated about menstruation. And also students should be educated about the need of proper menstrual hygiene management and waste disposal methods. Should improve the adequate storage of water in the school and should provide proper discarding areas in the school.

**Key Words:** *Knowledge, Practices, Menstrual, Hygiene, Adolescent*

**Knowledge and practices regarding the infection control among nursing officers in Deniyaya Base Hospital, Sri Lanka**

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**Introduction:** IPC (Infection prevention and control) occupies a unique position in the field of patient safety and quality universal health coverage since it is relevant to health workers and patients at every single health-care encounter. This study showed that successful infection control depends highly on nursing officers' knowledge and good practice regarding infection control. The study was used to assess the knowledge and practice about infection control among the nursing officers who are working in the Deniyaya Base Hospital.

**Methods:** This Descriptive cross-sectional study was conducted among the 100 nursing officers in Base Hospital Deniyaya area in Matara, Sri Lanka. Convenience sampling technique (Non probability) was used to select participants for this study. A self-administered questionnaire containing different sets of questions regarding knowledge and practice about infection control knowledge was used to collect data. Gathered data was analyzed using descriptive statistical methods using SPSS 25 statistical package.

**Results and Discussion:** The total population had good knowledge about the infection control and a satisfactory majority (98%) of the participants had good knowledge regarding infection control and 2% of participants had bad knowledge regarding infection control. Majority of the participants (99%) had positive practices towards infection control in patient care. 1% of participants had bad practice towards infection control. The response of the participants to good practice towards the infection control was satisfactory.

**Conclusion:** Majority knowledge among nursing officers in Base Hospital Deniyaya in Matara reflect upon their good practices in infection control in their health care settings. Essentially, most of the nursing officers in Deniyaya Base Hospital considered infection control as an essential part of nursing care. Finally, I should recommend that more television coverage should be given to preventable diseases. More funds should be allocated to launch such programs through mass media for the communicable disease in our country to give good knowledge and practice about infection control for all healthcare workers and clients.

**Key Words:** *Knowledge, Practice, Infection control, Nurses, Safety*

**To assess knowledge, attitudes and practices related to diabetes among adolescents in Lh. Naifaru, Maldives**

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**Introduction:** Diabetes mellitus is a common chronic disease with increasing prevalence worldwide; it leads to devastating human, social and economic impact. Childhood diabetes is a chronic lifelong disease that puts diverse and everyday demands on the patient and family. Although the role of psychological factors in diabetes has long been recognized, the relationship between parent and child awareness about diabetes, attitudes toward diabetes, compliance or adherence behaviors and health status has only recently been systematically examined by researchers. The main objective of this study was to assess the knowledge, attitude and practices among adolescents in Lh. Naifaru, Maldives.

**Methods:** This research was a quantitative, descriptive, cross-sectional correlational study conducted on 104 children using a questionnaire sent as a google form. The obtained data was analyzed using SPSS version 22.

**Results and Discussion:** The respondent sample was 40.4% male and 59.6% female. From the total sample 40.4% of respondents were in the age group of 11 - 12 years, 18.3% of them were in the age group of 13 - 14 years, 21.2% of respondent were in the age group of 15 - 16 and the balance 20.2% were in the age group of 17 – 19 years. The level of knowledge is 'good' in 76.6%, the level of attitude is poor in 40.7% and the level of practice is poor in 53.9% of children. There were good correlations between knowledge, attitude and practice.

**Conclusion:** The overall knowledge and practice were good, while diabetes-related attitudes was poor. However, results indicated that an increase in knowledge will increase attitude, and practice. A better educational program on diabetes should be conducted to improve attitude, and practice towards diabetes.

**Key Words:** *Diabetes, Children, Knowledge, Attitude, Practice*

**Prevalence and the associated factors of occupational low back pain among nurses  
in District General Hospital - Nuwara Eliya, Sri Lanka**

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**Introduction:** Nursing is a high-risk group profession with prevalence of low back pain LBP. Nursing literature shows that efforts have been made to try and reduce the problem of work-related low back pain while moving and handling, by training and the provision of handling aids. This study aims to determine work-related low back pain among nurses in critical care units and factors influencing low back pain.

**Methods:** A quantitative, cross-sectional and survey design was used to conduct the study in critical care units in District General Hospital - Nuwara Eliya. The study consisted of 150 participants, selected by convenience sampling technique. Data was collected using self-administered questionnaires. Data was analyzed using the SPSS.

**Results and Discussion:** Findings of this study broadly confirm high levels of LBP among nurses with 16.4% pre nursing LBP and 68.2% since nursing LBP. Working experience in current ward, nursing experience, age and frequent standing are positively associated with LBP. The main route to prevention of LBP among nurses is improved manual handling technique while transferring patients in the wards. None of the individual factors studied were significantly associated with LBP among the nurses. As for the work-related factors, frequency standing during shift was found to be associated with LBP ( $p=0.021$ ) while other factors were not significantly associated with occurrence of LBP.

**Conclusion:** Future researchers should attempt to achieve a larger random sample to determine whether general results apply to a larger population sample size. Therefore, those findings can be generalized across the whole industry. In future, similar research may be conducted in different sectors (other health and service sectors) of Sri Lanka. That would further help the researchers to find new and novel findings.

**Key Words:** *Nurses, Low back pain, Employment profile, Personal factors, Work related*

**Factors associated with road traffic accidents among people admitted to the accident service of National Hospital of Sri Lanka**

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**Introduction:** The World Health Organization defines a road traffic accident (RTA) as a collision involving at least one vehicle in motion on a public or private road. RTAs represent significant causes of morbidity and mortality in both developed and developing countries. RTAs are identified as one of the leading causes of death and injury in Sri Lanka. It is vital to prevent RTAs by assessing factors associated with those. The purpose of this study is to identify the factors associated with RTAs among people admitted to the accident service in the National Hospital of Sri Lanka.

**Methods:** This descriptive, cross-sectional study was conducted among a sample of randomly-selected 80 patients admitted to the ward-72, accident service casualty male ward, National Hospital of Sri Lanka (NHSL) from January 2021 to April 2021, following RTAs. The information gathered from the patients included age and history of the incident, whether a pedestrian or a vehicle occupant. Data was collected through an interviewer-administered questionnaire and analyzed descriptively.

**Results and Discussion:** The majority of the victims belonged to the 21-30 age group (46.3%). Most of the victims were drivers (83.8%), who reported that the speed of the vehicle when the time of the accidents was over 60 km/hr. (78.8%) and were with a valid license (56.3%). Common vehicle types used by victims were motorbikes (65.0%). The majority of the patients were present with limb injuries (60%). Most of the accidents happened on weekends (57.5%), from 6 pm - 12 midnight (58.8%), where 42.3% of the respondents were driving under the influence of alcohol. Some were not wearing helmets/seat belts at the time (17.5%) and 48.8% of accidents happened in clear weather conditions.

**Conclusion:** The accidents were not due to a single cause but were the result of a combination of failures including environmental and human factors. In this study, factors associated with RTAs were age, type of the vehicle, speed of the vehicle, type of day, and time of the accident.

**Key Words:** *Road traffic accidents, Associated factors, Accident ward, National Hospital, Sri Lanka*

**Kumari Hair Oil products limited**

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**Introduction:** Kumari Hair Oil products limited; to offer the new coconut milk herbal hair care product to Sri Lankan market. An Oil markets were full filled with toxic and unhealthy products which make sever damages for the human life. Therefore, it creates the opportunity for entrepreneurs to come up with a hair care product which is herbal and natural and healthily for customers as they are made out of real coconut milk and no artificial and chemicals are included in the product. This study was aimed to achieved identified the factors affecting for launching hair care shampoo manufacturing with coconut oil and identified the ways of implementing in oil market.

**Methods:** The exploratory research design were used in conducting the study. The business developer experts to use market research in form of survey to collect data and the information from the target market and records to collect the secondary data from 20 oil commercializing people.

**Results and Discussion:** Most of the customers in the market are afraid of buying the products with chemicals. Therefore, it creates the opportunity for innovators to come up with a hair care product include herbal and natural ingredients. The large numbers of hair products in the markets which are made off artificial ingredients and chemical which are not good for the skin and body of human as there are long term uses.

**Conclusion:** Implementation of Kumari Hair Oil products into the markets will make smart revolution without any harm to users. This product will have future demand form global market place as well especially the products associate with the beauty culture. Therefore, it is very important to introduce the healthily products to the market in order to improve the healthily level as well as satisfaction level of users.

**Key Words:** *Hair oil, Herbal, Market, Product*



**A study on the social aspect of antibiotic usage in Maldivian community**

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**Introduction:** The emergence and wide spread of bacteria that are resistant to antimicrobial drugs has become a global health crisis. This resistance is directly influenced by incorrect prescriptions, irrational consumption, and overuse of antibiotics by the general population. As the social aspect of antibiotics is significant in the management of this rapidly intensifying health issue, this study aims to understand the knowledge, attitude, and current practice of antibiotic usage in the general population of the Maldives.

**Methods:** This was a descriptive, cross-sectional study conducted among a random sample of 140 participants from the general population of the Maldives aged between 18 and 45 years. A self-administered questionnaire was used to collect data, which consisted of four dimensions: socio-demographic characteristics, knowledge, attitude, and practice. A Google Form was used to create the questionnaire, which was filled out by participants through online platforms in a period of three months between April 2020 and June 2020. Data was descriptively analyzed using SPSS software V.2.0. P 0.05 was considered statistically significant.

**Results and Discussion:** Among 140 participants, 79.3% (n=111) were females. Most of them had university level qualifications (56.4%, n = 79) and were employed (64.3%, n = 90). Gender showed a significant association with good practice, while educational level and employment status were significant factors related to the attitude towards antibiotic use. In the study, it was revealed that the population had poor knowledge of identifying antibiotics, their side effects, and inappropriate behaviors that cause antibiotic resistance. Out of the total respondents, 66.4% (n = 93) had considered antibiotics as a drug used to treat bacterial infections, and 48.6% (n = 68) had regarded antibiotics as a medicine that speeds up the recovery of flu, cold, and cough. Many respondents (64.3%, n = 90) understand the importance of completing the full dose, while 36.4% (n = 51) believe that they should stop taking the prescribed antibiotic after feeling better. Less than half of the respondents (45%, n = 63) had reported taking antibiotics with medical professional advice and 57.1% (n = 80) reported correct practice of completing the course. Further, most respondents (68.6%, n = 96) had obtained antibiotics through medical prescription. Correct practice was also identified when participants inadvertently skipped a dose (63.6%, n=89).

**Conclusion:** The study substantiates insufficient knowledge regarding the identification of antibiotics, their side effects, and the causes of antibiotic resistance. Also, inappropriate use of antibiotics was seen in the study, such as consuming antibiotics without medical advice and stopping antibiotic course therapy without completing it. Recommendations include focusing on increasing knowledge through educational interventions about antibiotic use and its relationship to antibiotic resistance, as well as enforcing antibiotic regulations to reduce self-prescription.

**Key Words:** *Antibiotic misuse, Antibiotic resistance, Awareness, Behavior, Public*

**Awareness of self-management among diabetes mellitus patients of Fuvahmulah city**

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**Introduction:** The number of diabetes cases is increasing day by day. The education level in the country is still a significant factor influencing the spread of disease. The study's aim is to identify the level of awareness of self-management of diabetes among diabetic patients in Fuvahmulah city.

**Methods:** A descriptive, cross-sectional study was done. The sample size was selected conveniently. A self-administered questionnaire comprising mainly closed-ended questions and a few open-ended questions was circulated among 100 pre-identified diabetic patients from 8 villages in the Fuvahmulah city of Maldives. The data was analyzed descriptively using IBM SPSS 22.0. Patients who were newly diagnosed or who had been diagnosed for less than five years were excluded.

**Results and Discussion:** The mean age of participants was 56.9 years. Females made up 55% of the population. All of the respondents had medical insurance. The majority of the participants (65%) were retired. The majority were without diabetes-related complications (90%). Two-thirds of the participants above 65 years of age get MRF 5000 from the government (66%). The multicenter study used structural equation modeling to support evidence that self-efficacy, employment status, knowledge, diabetes distress, and education level affect DSM behaviors directly and indirectly. All relationships were significant (0.05) for all paths, and the strength explanations for variables were acceptable. The study's results indicated that self-efficacy was the strongest predictor of DSM behaviors among the variables. Knowledge and employment status both had a different effect on DSM behaviors. Demanding the capabilities, confidence, and determination of patients and self-efficacy could affect individual behaviors.

**Conclusion:** The level of self-efficacy and adherence to self-care management were high in about half of the respondents, and there was a significant association between self-efficacy and adherence to self-care activities and the level of glycemic control. Educational level and formal diabetes education were found to be significantly associated with a high level of diabetes management self-efficacy.

**Key Words:** *Diabetes, Glycemic control, Knowledge, Management, Self-care*

**Assessment of the nutritional status of pregnant women in a selected rural area in Sri Lanka**

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**Introduction:** Pregnancy is a period of dynamic change for women requiring a lot of concentration and care for the fetus to be nourished directly through the placenta of a mother. There is a nutritional requirement to satisfy the needs of the fetus and mother. Maternal nutritional problems remain as one of the public health problems in Sri Lanka. This study was designed to assess the nutritional status of pregnant women in a selected rural area in Sri Lanka.

**Methods:** In this study, a descriptive, cross-sectional design was used. A total of 133 pregnant women in their second trimester were recruited from maternal and child health clinics. A pretested general assessment questionnaire, validated food frequency questionnaire and anthropometric measurements were used to collect information. Statistical analysis included descriptive statistics: percentage, mean and standard deviation (SD). The binary logistic analysis was done to test the relationship between sociodemographic characteristics and the nutritional status of pregnant women. Statistical analysis was done by using SPSS, version 16.0.

**Results and Discussion:** The mean age of the study sample was  $26.86 \pm 4.16$  years. Their mean weight gain during the second trimester was  $2.71 \pm 2.23$  kg that was below the recommended weight gain (4.84 kg). Out of the total, 24.57% had anemia ( $<11$  g/dL). The mean daily intake of energy was 2472 kcal and percentages of energy from carbohydrate, protein and fat were 61.5%, 12.2% and 26.3%, respectively. Although the mean daily dietary intake of protein ( $74.19 \pm 13.64$  g) was above the RDA of 59 g/day, mean intakes of Ca (844.9 mg), Fe (16.5 mg), and foliate (420.9 mg) were below the RDA levels.

**Conclusion:** The study concluded that the pregnant women in the study sample did not show adequate weight gain during pregnancy and a significant percentage of women had nutritional deficiencies and low dietary intake, which could be the reason. Therefore, effective nutrition intervention should be directed towards pregnant women by relevant authorities to improve the nutritional status of pregnant women in rural areas of the country.

**Key Words:** *Nutrient intake, Nutritional status, Pregnancy, Mothers, Weight gain*

**Knowledge, attitudes, and practices regarding surgical site infections among surgical and gynecology ward nurses at District General Hospital - Nuwaraeliya**

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**Introduction:** As evident from several studies done worldwide, surgical site infection (SSI) after surgeries is a problem that has not yet been completely resolved, despite surgeons being thoroughly cautious about sterility and managing patients meticulously before and after surgery. This research assesses knowledge, attitudes, and practices regarding surgical site infections among nurses in surgical and gynecology wards, at district general hospital (DGH) - Nuwaraeliya.

**Methods:** A descriptive, cross-sectional study was conducted using a convenience sampling method. An interviewer-administered questionnaire was used to collect data from 150 nurses working in the DGH Nuwaraeliya. Data analysis was done via SPSS 25. Nurses who did not give consent and nursing students were excluded.

**Results and Discussion:** The majority were female respondents (70.67%, n = 106), and 50% (n = 55) were in the age range between 20 and 30 years. There was no respondent with any other professional qualifications except for a diploma in nursing (81.3%), a bachelor of nursing (18%), or a master of nursing (0.7%). Over half of the respondents have over five years of working experience (53.3%, n = 80). 14% (n = 21) of respondents are at risk of infection due to poor perfusion. 84.7% (n = 127) of respondents agree that yellowish discoloration is a sign of a surgical site infection (SSI). The highest portion of respondents (96%, n = 144) had CRP as a blood investigation. 86% (n = 129) of respondents agree that the best time for hair removal is the day before surgery. The level of nurses' attitudes regarding the prevention of SSI is low, whereas current practice regarding the prevention of SSI is high. The results of Pearson correlation analysis indicate that there is a significantly strong positive relationship between nurses' knowledge and attitude ( $r = 0.531, p 0.01$ ), that there is a significantly moderate positive relationship between nurses' attitude and practice ( $r = 0.531, p 0.01$ ), and that there is a significantly strong positive relationship between nurses' knowledge and practice ( $r = 0.531, p 0.01$ ). According to correlation results, nurses' knowledge, attitude, and practice have a statistically significant positive relationship regarding the prevention of SSI ( $p 0.05$ ).

**Conclusion:** This research has found that despite their positive attitudes, their knowledge of SSI prevention and SSI in general is low. Most importantly and surprisingly, it has been found that experienced nurses have less knowledge than younger and less experienced nurses, probably because of a lack of up-to-date knowledge. Lastly, the study demonstrated a neutral attitude towards the prevention of SSI.

**Key Words:** *Attitudes, Knowledge, Practices, Prevention, Surgical site infections*

**Ayurveda: the path to achieving the sustainable development goal of good health and well-being**

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**Abstract:** To promote peace, health, and prosperity for all peoples around the world, UN member states adopted the 2030 Agenda for Sustainable Development in 2015, which included 17 goals known as the Sustainable Development Goals (SDGs). The intensive use of natural resources in the contemporary era, as a result of urbanization and modernization, leads to resource exhaustion for future generations, as well as greater poverty, poor health, and hunger. Good health and well-being are some of the SDGs' aims. The goal of this aim is to ensure healthy lifestyles and promote wellness for people of all ages. To attain this goal, the entire world is turning to the ancient medical system known as "Ayurveda," or "science of life". *Ayurveda* is the only system of medicine that instructs us on how to live, eat, and behave to live a healthy, happy, and peaceful existence. *Ayurveda* defined numerous ideas, such as *aharavidhividhan* for healthy food habits, *Achara rasayana* for rejuvenation therapy, and *sadvritta* for behavior toward other people and society. Only *Ayurveda* is given the notion of customised medicine and preventative medicine in terms of *shaman chikitsa* and *shodana chikitsa*, which aids in the decision-making of the optimal treatment strategy. As a result, applying *Ayurvedic* principles in the modern-day aids us in achieving the aim of excellent health and well-being for people of all ages. This review examines the different *Ayurvedic* concepts and principles that may be useful in achieving SDG-3.

**Key Words:** *Sustainable development, Ayurveda, Health, Well-being*

**Smartphone usage among nursing students in School of Nursing - Kaluthara**

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**Introduction:** Effective use of smartphones adds more benefit to the users, even though it also has a negative impact on individuals' lives. Nursing students use smartphones for different purposes. It is important to understand the smartphone use of nursing students to encourage effective usage. This descriptive study aims to explore smartphone usage among nursing students, for learning and other purposes.

**Methods:** Review of the literature was used to develop the conceptual framework of this descriptive study. The study sample size comprised of 103, third-year nursing students from the School of Nursing - Kaluthara. Data were collected from September to October 2021 using a self-administered questionnaire developed by researchers based on literature. The questionnaire consisted of two sections: demographic data and information about the usage of mobile phones. Data were analyzed descriptively.

**Results and Discussion:** The findings showed that all the nursing students used a smartphone. A majority of the participants (78.6%, n=81) were in the 22-25 years age group. Most of the respondents revealed that smartphones are very useful for their learning (77.6%, n=80) and for communication (82.5%, n=85), while 60.1% (n=62) of the participants said that it is very useful for entertainment. It was found that 62.1% (n=64) of the participant used smartphones for more than three hours ( $\bar{x}$ =3.3) per day. Mean monthly expenses on smartphones was Rs. 557.20, where 13.5% (n=14) spent more than Rs. 850 per month. More than half of the participants (52.4%, n=54) always used a smartphone in four of the seven dimensions of learning purposes, where the majority of them always used it to share notes (73.7%, n=76) and to find new updates related to clinical practice (70.8%, n=73). Moreover, many of the participants always used a smartphone to log into social media (56.3%, n=53), send messages (67.9%, n=70), take phone calls (66.9%, n=69). It was also found that 64.0% (n=66) of them used smartphones for entertainment purposes.

**Conclusions:** The finding of this study discovered that all the participants use smartphones and majorly for their learning. The results of this study will serve as the preliminary data for the nurse educators and policymakers in nursing education in Sri Lanka to plan in assisting nursing education, especially in developing an effective nursing education program and specific guidelines to help nursing students to adapt to the new developments in the world.

**Key Words:** *Smartphone, Student nurses, Nursing college, Learning aids*

**Final-year student nurses' perception regarding OSCE as an evaluation method – A survey**

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**Introduction:** Assessment of clinical competence is of great importance when evaluating the expected learning outcomes of nursing education. It is challenging to have such an objective assessment tool to comprehensively assess students' clinical competencies, especially with the current pandemic situation. The objective structured clinical examination (OSCE) is a powerful tool for evaluating clinical competence and an effective facilitator for students who are learning to perform clinical nursing skills. The OSCE is a performance test that requires the students to demonstrate specific behaviors in a simulated work environment. In a planned and structured manner, it evaluates the components of clinical competencies, with emphasis on the objectivity of the examination method. The aim of the study is to assess the final-year student nurses' perception regarding OSCE as an evaluation method and preparedness.

**Methods:** The study was conducted as a descriptive, cross-sectional survey. A participant count of 210 was approached from the School of Nursing, Kalutara, Matara, and Ampara through a convenience sampling method. Data was collected through a self-administered questionnaire distributed as a Google Form.

**Results and Discussion:** All of the 210 students responded, where the majority were females (94.7%, n=199). It was found out that 6.7% (n=14) of students knew nothing about OSCE and 25.8% (n=54) of them had not experienced an OSCE before. Most of the students (58.5%, n=123) were satisfied with the adequacy of obtained instructions prior to the session and only a minority of the students (17.6%, n=37) were dissatisfied. The majority of the students were satisfied with the facilities provided by the institution and the utilization of human resources during the performance phase. Over one-third of the students (37.6%, n=79) highlighted that allocated time duration for procedural scenarios is not sufficient. Finally, according to students' perception, most of the students (60%, n=126) preferred OSCE as an evaluation method.

**Conclusion:** According to students' perception, the OSCE examination offers an attractive option for the assessment of student's competency. However, there have to be more OSCE stations to effectively measure overall performance. A 10-minute time duration for an individual evaluation in one station is not sufficient and needs to optimize the time duration.

**Key Words:** *OSCE, Student nurses, Evaluation*

**Effectiveness of online teaching and learning: Nursing students' perceptions during Covid-19 pandemic**

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**Introduction:** The global outbreak of coronavirus caused transformations in different spheres including education. Due to the restrictions imposed in the country, the administration of the School of Nursing - Kalutara commenced an e-learning process to cope up with the situation. The aim of this research is to study the perceptions of student nurses regarding the newly imposed online teaching and learning process.

**Methods:** A descriptive, cross-sectional study was done among 209 nursing students of the 2018 batch of School of Nursing - Kalutara. A self-administered, online questionnaire was distributed among the participants and analyzed using descriptive statistics.

**Results and Discussion:** A total of 130 students participated in the study, with a response rate of 62.2%. A majority of the students (64.6%, n=84) have participated in the lectures per week with a percentage of 50-99% whereas only 37 students (28.5%) have participated in all the lecture sessions. Internet connection-related problems were the most frequent problems faced by the students (89.2%, n=116) and lack of income was the second most frequent problem (70.7%, n=92).

**Conclusion:** Since most of the students have participated in the online lectures, despite the problems faced by them, the online teaching and learning process seems to be effective among the nursing students of the 2018 batch of School of Nursing - Kalutara. When considering the number of participants out of the total number of students included in the study, we suggest conducting further research to confirm the accuracy of the findings of this study.

**Key Words:** *Effectiveness, Online teaching, Learning process, Nursing students, Education*



**Impact of social media addiction on the mental health of schoolchildren studying in schools in Matale district, Sri Lanka**

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**Introduction:** Social media is very popular in the current world. Many people belonging to different age groups use social media for different purposes. According to previous studies, it was found that excessive use of social media has a negative effect on the mental health of people. This study was conducted to find out the impact of social media addiction on the mental health of the school children studying in the schools in Matale district, Sri Lanka.

**Methods:** A descriptive, cross-sectional study design was used for this survey research. The study was conducted among school children of two government schools in Matale district, Sri Lanka. A sample of 200 students of age 18-19 years was selected. Data collection was done through a self-administered questionnaire. Data were analyzed using the SPSS software.

**Results and Discussion:** According to the study, the majority of the students were females (69.5%, n=139). A higher number of students mostly used WhatsApp (67.5%, n=135), whereas others used Facebook (22.0%, n=44), Imo (6.0%, n=12), or Viber (4.5%, n=9). According to the study findings, it was found that 57.0% (n=114) of students suffer from psychological disturbances. In order to find out the social media addiction, the correlation was taken between two variables like time spent on social media per day on average and the psychological disturbances faced. According to the findings, there was no correlation between the two factors, and the other two variables were taken into consideration. However, the time spent on social media per day correlated with the distractions the students faced ( $p < 0.05$ ). This result revealed that there was no significant relationship ( $p > 0.05$ ) between the time spent on social media per day and psychological disturbances among the students in the schools in Matale district, Sri Lanka.

**Conclusion:** It could be concluded from the results of this study that social media addiction has no significant effect on the mental health of the students studying in the schools in Matale district, Sri Lanka. Through the study findings, it could be identified that it is good to conduct awareness programs related to improving the psychology of the students.

**Key Words:** *Social media, Psychological disturbances, Mental health, Addiction*

**Impact of mothers' migration towards primary education of their children in selected schools in Kurunegala district**

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**Introduction:** The reduction of unemployment for women in Sri Lanka is seen as one of the positive outcomes of foreign employment. However, the negligence of children and their education remained a negative outcome of this development. Normally, a motherly-oriented culture prevails in Sri Lanka. Therefore, children are often dependent on their mothers. Education is one such important area that children are heavily dependent on. Therefore, the general objective of this study is to identify the impact of women (mother) migration towards the primary education of their children in selected schools in Kurunegala district, Sri Lanka.

**Methods:** This was a descriptive cross-sectional study. Primary data were collected from 165 participants using a pre-tested questionnaire. Secondary data were collected using journals, books and various government reports, especially from SLBFE. A quota sampling technique was employed to recruit participants. Data were analyzed for descriptive statistics using the IBM SPSS version 20 statistical package.

**Results and Discussion:** The majority represents the age categories of 30-35 years (62) and 36-41 years (48) that infer that they were having schooling age children. Out of the total participants, 130 participants have studied up to ordinary level and no one has surpassed the advanced level or above. The majority (97) were having more than one child in the family. 96% of the children were either strongly disagreed or disagreed to state that either father or family members help them to do their homework. Of the total participants, 88% of the class teachers were either strongly disagreed or disagreed to state that they can satisfied with the neatness of children's work at school.

**Conclusion:** Mothers' involvement in children's education is an essential need for students' overall performance. The exploration of left-behind children's education in Kurunegala District was a timely topic to identify its impact and consequences.

**Key Words:** *Women migration, Children, Primary education, Left-behind children, Performances*

**Parental knowledge and practice regarding safety and effectiveness of over-the-counter medicines for their children**

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**Introduction:** Over-the-counter (OTC) drugs are medication sold directly to a consumer without any prescription from a healthcare professional as opposed to introduction drugs, which may be sold only to consumers possessing a valid prescription. In many countries, OTC drugs are selected by a regulatory agency to ensure that they contain ingredients that are safe and effective when used without a medical practitioner's care. The study was done to assess the parental knowledge and practice regarding safety and effectiveness of over the counter medicines for their children.

**Methods:** A cross-sectional survey was conducted in three-month period among a purposive sample of 191 parents from a randomly selected MOH Area-Seeduwa. A pre-tested questionnaire was used to collect data. SPSS version 25 was used to analyze the collected data.

**Results and Discussion:** Majority of the parents had good knowledge on different concentration (51%) and ingredients (81.8%) of the drugs. Although more than two thirds of parents generally showed good practice, some reported giving their child a larger dose if their child is more sick than usual, or give an OTC medication if the child has no symptoms. According to the results, most of the parents (94.3%) indicated that OTC medications were effective and improved the symptoms of the children (90%). About 31.5% of the parents had mentioned that OTC medications are safe regardless of how frequently they are used.

**Conclusion:** Usage of over the counter medications has become very common among the parents. According to the results, most of the parents were using OTC medications for their children for many conditions and they have believed that the medications are effective and safe for the use of children. But most of the parents were not aware much about the dosages and complications of the medicines. Therefore, this should be regulated to avoid further complications that may face by the children.

**Key Words:** *Parental, Knowledge, Practice, Safety, Over-the-counter medicines*

**Knowledge and practices on infection control among ICU nurses in a government hospital in Sri Lanka**

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**Introduction:** Infection control is the discipline concerned with preventing nosocomial or health care-associated infections and it also can affect at any time people received their medical treatments. Without controlling the infections, it may lead to having more antibiotics, investigations, complications and also it will be a massive additional financial burden to the government. Recent studies reveal that health care workers practice the infection control methods and prevention practices may lead to 70% reduction of hospital-associated infections.

**Methods:** A descriptive, cross-sectional study was done to assess the level of knowledge and practices among Intensive Care Unit Nurses in a Government hospital in Sri Lanka. The study was done at Badulla General Hospital. 149 ICU Nurses participated in this study. Data collection was done using a self-administered questionnaire and data analysis was done by SPSS version 25.

**Results and Discussion:** Out of 149 ICU Nurses, 77 (51.7%) respondents had scored above average level of total knowledge. The majority of the participants (53.7%) had scored below the average level of total practice and 69 (46.3%) had scored above the average level of total practice. There was a significant correlation in infection control practices with age ( $p=0.04$ ), gender ( $p=0.02$ ), work experience ( $p=0.02$ ) and infection control training ( $p=0.03$ ).

**Conclusion:** The general knowledge regarding infection control was fairly good, but the practice level was not at a satisfactory level. Age, gender, work experience and training programs were the factors affecting infection control practices. Infection control awareness and training programs will further improve the level of knowledge and practices.

**Key Words:** *Infection control, Knowledge, Practice, Factors*

**Study of sleep habits and sleep problems among nursing officers in National Hospital of Sri Lanka – 2021**

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**Introduction:** Good quality sleep and an adequate amount of sleep are important in order to have better cognitive performance and avoid health problems and psychiatric disorders. Impaired or disrupted sleep has been shown to cause poor concentration, reduced energy levels, altered immune function, mood changes, increased risk of depression or anxiety, and a higher occurrence of accidents and falls, especially in the elderly. The aim of this study was to describe sleep habits and sleep problems in a population of nursing staff in the National Hospital of Sri Lanka (NHSL).

**Methods:** This study was a cross-sectional, observational study. Sleep habits and problems were investigated using a simple random sampling of nurses from the National Hospital of Sri Lanka. The study was carried out for three months with a population consisting of a total of 341 nurses. A self-administered questionnaire developed based on Epworth Daytime Sleepiness Scale and Pittsburgh Sleep Quality Index was used. Data were analyzed by using Statistical Package of Social Sciences (SPSS) version 16.0.

**Results and Discussion:** In this study, out of 341 nurses, 61% nurses had abnormal levels of daytime sleepiness while 39% were borderline. Sleep quality was 80% poor among nurses. Based on data of the Epworth Sleepiness Scale result 39% were abnormally sleepy, 12.9% average amount of daytime sleepiness, 45.16% may be excessively sleepy depending on the situation. This may consider seeking medical attention and 3.22% excessively sleepy and should consider seeking medical attention.

**Conclusion:** Disorders related to poor sleep qualities are significant problems among nurses in NHSL. Sleeping disturbance and addictions affected sleep and there was a high level of daytime sleepiness. Sleep difficulties resulted in irritability and affected lifestyle and interpersonal relationships. Higher management of NHSL should consider this issue and take action to normalize this situation. Exercise center, stress-relieving activities, workload and working shift assessment, etc. may help to manage and increase sleep quality.

**Key Words:** *Nurses, Sleep disorders, Sleep habits, Sleep quality, Epworth Daytime Sleepiness scale*

**Knowledge, attitude and practice toward blood donation among voluntary blood donors in selected hospitals of Sri Lanka**

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**Introduction:** Blood donation is a self-directed voluntary service and this study was aimed to find the present situation of the Mahiyanganaya area related to blood donation. The objectives of this study was to assess the knowledge, attitude & practices towards blood donation among voluntary blood donors in a selected hospital in Sri Lanka and to identify and recruit potential voluntary blood donors amongst them, and to determine the association between blood donation and gender, duration of practice and subspecialty of the donors. The outcome of research may help in program formulation for concerned people and organizations to make aware and incorporate donors in a regular donation activity.

**Methods:** This study was done as a descriptive, cross-sectional study. This was conducted at the blood bank of base hospital Mahiyangana. A pre-tested questionnaire was administered to 60 hospital staff donors. The responses were collected and the gathered data were analyzed using a descriptive statistical method using SPSS 25 statistical package.

**Results and Discussion:** Among 60 donors, most were in the 26-35 age group. Most donors were males and married. All donors were Sinhalese and Buddhists. Most of them were educated up to advanced level and were mostly employed. Most donors were regular donors and most of them had already donated blood 6 months ago. 2-10 times of donation was the highest frequency of blood donation among these donors. The 18-25 age group was the highest age group for age at first donation. Most of them know their blood group and the most common blood group was O positive.

**Conclusion:** Most donors have good knowledge and practice towards blood donation but that was not enough to continue the blood donation process. The recommendations would be to have more blood donation campaigns in blood banks or around the Mahiyangana area and conduct exhibitions about the importance of blood and celebrate world donors' day with donors and do something more for encouraging regular donors.

**Key Words:** *Blood donation, Donors, Attitudes, Voluntary, Blood groups*

**Factors affecting overweight and obesity among adolescents in the Mawanella MOH area**

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**Introduction:** Obesity is a medical condition in which excess body fat has accumulated to such an extent that it may have a negative effect on health. People are generally considered obese when their body mass index (BMI) exceeds 30. However, Sri Lanka has not properly studied the prevalence of obesity in adolescents prior to this. A major concern is a dramatic increase in the prevalence of overweight and obesity among children. The aim of this study was to identify the major factors affecting childhood obesity.

**Methods:** A school-based, cross-sectional, descriptive study was conducted among a sample size of 100 children. The students were aged between 12 and 18 years and were selected conveniently from Nagaragiri Maha Vidyalaya in Mawanella. The identified elements that influence the change in adolescents' BMI values were physical activity, dietary patterns, health status, and socioeconomic status. All of the subjects' weights and heights were measured using standard techniques and equipment. The newest WHO tables were used to determine BMI for age. The data was analysed descriptively.

**Results and Discussion:** Of the total participants, 35% were overweight and 20% were obese. There was no statistically significant difference according to gender ( $p > 0.05$ ). The overweight and obese male participants were 14.5% and 44.6%, respectively, for a total of 59.1%. When considering females, overweight and obese respondents were 11.9% and 56.3%, respectively. The abdominal obesity prevalence was 40% in males and 66.6% in females.

**Conclusion:** adolescent obesity has become a worldwide public health concern, not only in the Mawanella MOH area. At the population level, adolescent obesity can be addressed through education, prevention, and long-term interventions that promote healthy eating habits and physical exercise.

**Key Words:** *Overweight, Obesity, Adolescents, Exercise, Prevention*

**Assessing the knowledge and practices on dengue fever among the public in a rural area in Matara district**

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**Introduction:** The dengue epidemic has been a major health issue in Matara district during the last three decades. (WHO) recommends the best way to prevent dengue-endemic is to provide knowledge about dengue and preventive measures to people. This study is to find out knowledge, attitudes, and practices regarding dengue fever among the general public in a rural area in Matara district.

**Methods:** A descriptive, cross-sectional study. A self-administered questionnaire was circulated among 110 respondents in the public in Bandattattara GS area of Matara district. Data were analyzed using the SPSS package.

**Results and Discussion:** Out of the respondents 35 (31.8%) were among 18-25 years old. 73 (66.4%) majority were female. The majority (above 50 %) 55 of the respondents were well aware of the vector, symptoms, breeding places of the mosquito, etc. But awareness of the impossibility of direct transmission of dengue, the type of water in which the mosquito lays eggs, the necessity of blood tests, the possibility of getting infected for a second time, and the measures have taken by the government to prevent dengue, etc. were below (55) 50%. It is evident that the community has basic knowledge of dengue fever. 98.18% (n=107) use mosquito coils/nets to prevent mosquito bites, proving that the community tends to use reactive measures such as repulsion of adult mosquitos and prevention of mosquito bites other than proactive measures such as control the mosquito population. The majority of the respondents have stated that they obtained the awareness and knowledge on dengue by television/radio or newspapers (92%, n=102 and 85%, n= 96 respectively). The success rate of Public Health Officers in making the community aware is comparatively low as it has reached only 32%.

**Conclusion:** Basic community awareness or awareness on vectors, symptoms, breeding places of the mosquito, etc. was high. But the community does not have an in-depth awareness of the disease and related factors.

**Key Words:** *Dengue fever, Morbidity, Public knowledge, Prevention, Rural area*



**Knowledge, attitude, and practices of caregivers towards managing dementia patients in elders' homes, Ja-Ela and Negombo MOH areas**

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**Introduction:** Dementia is one of the major causes of disability found among elderly people which involves multiple cognitive deficits including a decline in memory and judgment, and the struggle to find correct words. There are increasing concerns about the quality of care provided to people with dementia, especially in acute hospital settings, due to poor knowledge about dementia and lack of understanding about individual patient needs. Measuring care professionals' knowledge, attitudes and care practice of dementia is a vital step in identifying evidence to improve dementia care, education, and training. This study aims to assess the caregivers' knowledge, attitudes, and care practices towards dementia patients in elders' homes in Ja-Ela and Negombo MOH areas.

**Methods:** This was a descriptive, cross-sectional study conducted on a selected group of caregivers of 4 elders' homes from Ja-Ela and 3 elders' homes from Negombo MOH areas. A convenience sampling method was used to select 60 participants and the survey was carried out by providing a self-administered questionnaire consisting of 29 questions. The obtained data were analyzed with the aid of Microsoft Excel software.

**Results and Discussion:** The study population consisted of 95% female and 5% of male caregivers. Regarding the knowledge level on signs of dementia, 83% gave correct answers while 17% gave incorrect answers or had no idea. When considering the level of knowledge on treatments, the majority had demonstrated an adequate level of knowledge (70%). Half of the caregivers (50%) had a positive attitude regarding performing mental exercises to counteract dementia. In terms of using safety methods while caring for dementia patients, only 44% were aware of all safety measures.

**Conclusion:** The results of the study revealed that the majority of the participants had an adequate level of knowledge about dementia. The findings on attitude revealed that there is a positive attitude towards being able to manage dementia with exercises among caregivers of the elderly. However, the results show that there is a need to improve practical knowledge.

**Key Words:** *Dementia, Caregivers, Knowledge, Attitudes, Practices*

**Measuring depression among pregnant mothers attending antenatal clinic in Peradeniya Teaching Hospital**

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**Introduction:** antenatal depression is a major risk factor which is needed to be recognized in the early stage if not even this can have led into suicide. Feeling of guilt, feeling of low self-worth, loss of interest or pleasure, disturbed sleep, disturbed appetite are some of the signs of depression. The aim of the research is to measure depression and to determine the spectrum of variations of antenatal depression among pregnant mothers.

**Methods:** Data was collected using a standard Peradeniya Depression Scale (PDS) questionnaire mainly with close ended type questions and using consecutive data collection methods. Participants were pregnant mothers in all three trimesters attending the clinic in three consecutive months, personal characteristics like age and parity were considered. Simple size 424 mothers were selected using a simple random sampling method.

**Results and Discussion:** From 424 participants, 6.13% (n=26) were diagnosed as having antenatal depression according to PDS. According to the results, the age category of 35-39 has the highest percentage (15.22%, n=65) of antenatal depression while no one was found in the 15-19 age group. In the category of parity, the highest percentage of antenatal depression was found in those who were in their first pregnancy (10.12%, n=43) and no one was found in their fourth and fifth pregnancies. Proportions of primiparous mothers with antenatal depression showed an upward trend with age group and with the highest in age group 35-39 (26.67%, n=4). There is a significant proportion of primiparous mothers suffering from antenatal depression and it increases with age.

**Conclusion:** Based on the results, it could be concluded that the highest number of probably-diagnosed subjects with antenatal depression was in the category of 35-39 while the lowest was in 15-19 age group. According to parity, pregnant mothers in their first pregnancy showed the highest and those in fourth and fifth pregnancies were the lowest. Awareness on identifying and treating antenatal depression at an early stage can reduce the complications of both mother and child.

**Key Words:** *Antenatal, Depression, Primiparous mothers, Parity, Trimesters*

**Nurses' knowledge, attitudes and practice regarding prevention of the pressure ulcers in District General Hospital - Nuwara Eliya**

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**Introduction:** Pressure ulcers lead to pain and discomfort for patients and also cause prolonged illness, delayed restoration, increase in patient's hospital stay, and may lead to infirmity and even death. The purpose of this study was to assess the Nurses' knowledge attitudes and practice regarding the prevention of the pressure ulcers in District General Hospital (DGH) - Nuwara Eliya and to check the association between nurses' job experience and their knowledge and practices towards pressure ulcer prevention at DGH - Nuwara Eliya.

**Methods:** A cross-sectional study was carried among 150 nurses conducted in DGH - Nuwara Eliya. The study participants were selected by convenience sampling technique and the study excluded nurses who had worked for less than 6 months in the field. An adapted questionnaire was distributed among participants and the data entered and analyzed statistics and results were presented in Graphs and Tables.

**Results and Discussion:** According to correlation results, nurses' knowledge, attitude, and practice have statistically significant positive relationships regarding the prevention of pressure ulcers ( $p < 0.05$ ). Hence, there is enough evidence to support the alternative hypothesis is accepted at the 5% level ( $p < 0.05$ ). Accordingly, nurses' knowledge, attitude, and practice have a significant positive impact on the prevention of pressure ulcers in DGH - Nuwara Eliya.

**Conclusion:** A nurse's job experience has a significant association with their practices and knowledge towards pressure ulcer prevention. Nurses' overall knowledge and practices toward pressure ulcers were poor. Working experience had a significant association with nurses Practices and knowledge at DGH - Nuwara Eliya. Therefore, nurses need to get continued education and training about pressure ulcer prevention that will enhance their knowledge and practices. These findings suggest that nurses need to develop positive attitudes and increase their knowledge of pressure ulcer prevention in order to improve nursing practice in this area.

**Key Words:** *Nurses, Pressure ulcers, Knowledge, Experience, Practice*

**A study on knowledge and practices of first aid in road traffic accident emergencies among taxi drivers in Kalutara - Dodangoda division**

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**Introduction:** Every year the lives of more than 1.25 million people are cut short as a result of a road traffic crash. Any delay in medical care during a life-threatening situation can have catastrophic results. Aim of this study is to assess their knowledge practices in first aid in road traffic emergencies among taxi drivers in Dodangoda division of Kalutara district.

**Methods:** Cross-sectional Study according to convenience sampling method among the taxi drivers (100 drivers) in Dodangoda area. A self-administration questionnaire including knowledge, practices, critical thinking questions.

**Results and Discussion:** Majority is from those who had experience less than 10 years (80%) and minority is between 21 to 40 years. Here, clearly 35% drivers trained in first aid Training programs in various ways. Majority of taxi drivers have used first aid knowledge before. Most of them knew the emergency number (95%) and 15% of them believed that they had the ability to do first aid treatment in an emergency case. According to the study, 42% Persons know how assess pulse, 18% drivers know how to perform CPR, majority answer is elevating site in prevention bleeding. Only 27% of people apply pressure. Most drivers attempt to Splinting, in the case of a fracture. Majority of taxi drivers (78%) decided to wash out in running water in case of a burn. In this study revealed, 21% persons are attempting to perform left lateral position in case of seizure. Glad to mention that 88% drivers are satisfied by doing first aid.

**Conclusion:** The most important is the “Golden Hour” in trauma, and definitely the victim’s life will be depending on how the involved, responsible persons act that moment by giving first aid. Finally, it proves the first aid training is most essential to the drivers. Then surely, we can reduce the road traffic accident injury severity by giving first aid accurately at the right time and minimize the deaths in RTA.

**Key Words:** *Accident, First aid, Knowledge, Practices, Taxi drivers*

**Knowledge and perceptions about diet and physical activity among adults with diabetes mellitus in Kadiraveli hospital**

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**Introduction:** Diet and physical activity are important modifiable risk factors affecting the incidence, severity, and management of diabetes mellitus (DM). The present study aims to evaluate the knowledge and perceptions about dietary patterns and physical activity among a group of adults with DM in Kadiraveli hospital of Sri Lanka.

**Methods:** A cross-sectional observational study was conducted and a convenient sampling method was used. A self-administered questionnaire was circulated among 100 DM patients in Kadiraveli hospital of Sri Lanka. Data analysis was done via SPSS 21 with a margin of error of 5%.

**Results and Discussion:** 80% of the participants were between 50-60 years. 65% of diabetes patients were female. All participants were married. 65% of participants are unemployed. 97% were Hindu. 96% of the participant's education level is < grade 5. 43% where monthly income was 31,000 – 45,000 Rupee. 95% knowledge about DM < 20%. 53% were suffering from diabetes disease for > 10 years. 35% DM occurred from the mother's side. 97% used oral drug therapy as their treatment method. Majority 86% do not know their stage of DM. 87% had no complications. 98% use a normal dietary pattern. 77% used > 61% of carbohydrate. 48% had daily vegetables and fruit intake of 21-40%. 62% participated in other activities, besides swimming, walking, cycling, running. 98% spent > 16 minutes on their physical activity. For most participants' who engage in physical activity (including walking), it was an irregular commitment. 81% regularly followed clinic visits. 96% took drugs regularly. Most patients with DM were aware of the importance of diet and physical activity in relation to their disease. However, they emphasized many difficulties faced when implementing these practices, especially social circumstances. Their food choices were mainly determined by those in the family, including non-diabetic healthy individuals; this was the key issue.

**Conclusion:** Despite understanding the importance of dietary control and physical activity in the management of DM, adherence to practices was poor, mainly due to lack of clarity of information provided.

**Key Words:** *Diabetes mellitus, Awareness, Physical activity, Attitude, Practice*

**Knowledge, attitude, and practice regarding dengue fever among a rural area in Gampaha district**

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**Introduction:** Dengue is a dangerous disease-causing high mortality. It can be preventable with cleaning practices and can cure with earlier treatments. Public knowledge, attitudes, and practices regarding dengue fever is a vital component in controlling dengue. The purpose of this study is to understand knowledge, attitudes, and practices to prevent and control dengue of the general public in a rural area of Gampaha district.

**Methods:** Community-based cross-sectional survey was conducted and a convenient sampling method was used. The interviewer-administered questionnaire was circulated among 99 individuals who study, work or live in the Gampaha district. Data analysis was done via SPSS 22. Those who were outside the age range of 18 - 60 years old, and were not well enough due to medical reasons were excluded.

**Results and Discussion:** 55% (n=54) female respondents. Half of the respondents mentioned “up to Ordinary level “as their level of education. To prevent and control dengue, most of the respondents 31.3% (n=31) dispose of stagnant water. There is a moderate positive correlation between knowledge and attitude towards the dengue as well a considerable number of respondents in the sample are practicing several preventive and corrective measures. Also, it is depicted that the difference could be seen about knowledge of this virus infection among different educational level people.

**Conclusion:** This research has found that people even in the rural area practice several preventive methods, however, still there are a considerable number of people who lack proper awareness.

**Key Words:** *Dengue fever, Awareness, Knowledge, Attitude, Practice*

**Effect of balance exercises on diabetic peripheral neuropathy patients in improving balance to minimize fall risk: Review**

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**Introduction:** Diabetes has become a global health concern and, with its high prevalence, diabetes has been declared an epidemic. Diabetes peripheral neuropathy (DPN) is one of the most common complications of diabetes, and it can have a negative impact on a person's quality of life in a variety of ways. One of the most debilitating factors of DPN is impaired balance, which is a known risk factor for falls and disability among the elderly. Exercise interventions have been shown to benefit patients with similar clinical presentations. Therefore, the review will focus on assessing the effect of balance-specific exercises in reducing falls. The aim of the review was to assess the effectiveness of balance exercise programs on people with DPN in improving their balance and reducing their falls using a review approach.

**Methods:** A review was conducted through the results of four electronic-database searches. For an article to be included, it had to be a study done on DPN patients over 50 years of age. Interventions that were based on digital technology were excluded. Articles obtained were screened for eligibility in three stages. The quality of the final selected items was assessed using the CASP tool.

**Results and Discussion:** Six articles met the review criteria, and all included studies had acceptable methodological rigor. No adverse events were identified in any of the studies. Exercise interventions varied with combinations of multisensory exercise training programs, task-oriented training, balance training with resistive training, and proprioception training. All studies suggested balance exercises as a suitable intervention to be implemented for DPN patients. Since the outcome measures had a wide variation, no further conclusions regarding their relative effectiveness could be drawn.

**Conclusion:** Balance exercise interventions can be suggested as an effective treatment for improving balance in DPN patients. Further research is needed to develop a comprehensive treatment plan with the appropriate type, duration, frequencies, and long-term effects. Future research needs to be initiated in the older population and needs to be done in more common settings with limited resources in order to generalize the findings.

**Key Words:** *Balance exercises, Fall risk, Diabetic peripheral neuropathy*

## Introducing fleet management information system to improve the effectiveness of management of vehicles at health sector

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**Introduction:** The lack of transport to ensure time-outs transfer of patients between levels of healthcare and for delivery of medicines, vaccines and other essential equipment is a community heard cry from healthcare workers. Maintaining a proper vehicle management system at Regional Director of Health Service (RDHS) Hambantota is very important to ensure an uninterrupted healthcare delivery throughout the district.

**Methods:** This mixed method research project was carried out at RDHS Hambantota with the intention of identifying the gaps in the current vehicle management, maintenance and operating system and improves the effectiveness of management of vehicles. The project was carried out in three stages. The pre-intervention phase aimed at identifying the existing situation and gaps in the vehicle management system, using both qualitative and quantitative techniques.

**Result and Discussion:** It was revealed that inadequate staff training regarding proper fleet management, lack of technical knowledge of drivers, absence of preventive maintenance schedule and poorly managed vehicle inventory system led to inefficiency in vehicle management at RDHS Hambantota. In the second phase of study, based on above gaps, interventions were designed and implemented. Digital platform created through establishing a database for the transport section of RDHS Hambantota, helped in maintenance, management and operations of the vehicles. It is evident that after the interventional phase, the systematic improvement of the data management, inventory management and vehicle operations and feedback mechanisms improved. Significance test statistics reveal that the average time for documentation process at RDHS improved from 16.52 days to 3.56 days at  $p < 0.0001$  level. Vehicle availability increased from 62% to 81%, utilisation improved from 68% to 76% and performance improved from 69% to 84% at RDHS Hambantota.

**Conclusion:** It is concluded that the implementation of the multifaced and package of interventions implemented in this project was effective in improving the vehicle management at RDHS. It is recommended to improve the online system further by adapting the experience gained throughout the intervention phase and expand the project to the other healthcare institutions.

**Key Words:** *Fleet management information system, Inventory management system, Key vehicle performance indicators*



**Action research on guided speaking activities to address problems that ESL nursing students face in a private international nurse training institute in Sri Lanka**

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**Introduction:** For the past few years, the number of students who have taken up the bachelor of nursing degree in Sri Lanka has increased. Most of these students have received their twelve years of education in Sinhala medium. Hence, they face numerous problems due to language barriers. Therefore, it is mandatory that these ESL nursing students master their English language proficiency prior to proceeding with the nursing degree, in order to succeed in their course of work. This action research attempts to unveil the language difficulties faced by the ESL nurses.

**Methods:** A mixture of both qualitative and quantitative research methods were used to collect the data. Problems were identified through a pre-test, and guided speaking activities were planned accordingly. A post-test was conducted to see the improvements. All the speaking activities were recorded to plan interventions.

**Results and Discussion:** Seven first-year nursing students participated in the study. When the results of the pre-test and post-test were compared, the students showed an improvement in the average score, which increased from 7.57 to 16.2. The students showed an increased improvement in grammar, which changed from an average of 1.3 to 3.6.

**Conclusion:** The results show that this method was effective. The results of the pre-test were lower than the results of the first guided speaking activity, showing that the students are capable of producing more results when guided. The average of the final scores of the post-test is also higher than the averages presented after the implementation of the guided speaking activities, which demonstrates that such activities may have enhanced the ability of the students.

**Key Words:** *ESL, English, Nursing students, Problems, Speaking activities*

**Assessing the levels of knowledge regarding gestational diabetes mellitus among mothers during the antenatal period**

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**Introduction:** Gestational diabetes mellitus (GDM) is one of the most common medical complications of pregnancy. It is associated with maternal and neonatal adverse outcomes. GDM is emerging as a common medical complication of pregnancy, with a parallel increase to the pandemic of type-2 diabetes mellitus in Sri Lanka. There appears to be a lack of uniform strategies for screening and diagnosing as well as the knowledge in GDM globally. The goal of this study was to assess GDM mothers' knowledge and attitudes about the condition throughout the prenatal period.

**Methods:** A descriptive, cross-sectional study of 100 pregnant women was conducted. Eligible study units were recruited in a structured manner using the convenience sampling method from pregnant mothers waiting for care at the General Hospital Badulla's prenatal clinic. To obtain data from participants, a self-administered questionnaire was used and the obtained data were analyzed using Ms Excel.

**Results and Discussion:** Out of 100 participants, regarding the condition 11% had a poor understanding, 25% had a moderate understanding, and 64% had a good understanding of the condition. Out of 100 participants when considering the problems associated with GDM, 36% had a good grasp, 20% had a fair comprehension, and 44% had a poor understanding. Also, 59% of individuals had a good grasp of lifestyle eating behaviors, 15% had a moderate understanding, and 27% had a poor understanding. Overall, GDM awareness among pregnant women is on a low count (35%).

**Conclusion:** There is a paucity of data on the level of GDM knowledge among pregnant women in Sri Lanka. Such studies are important for the application of disease control and preventive methods in resource-constrained nations. The outcomes of this study can assist healthcare practitioners in Sri Lanka to successfully implement programs regarding GDM and devising appropriate strategies to raise awareness about GDM prevention.

**Key Word:** *Pregnant, Diabetes mellitus, Knowledge, Antenatal*

**Awareness on depression and practices of stress management among Advanced Level students in a selected institute in Sri Lanka - 2019**

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**Introduction:** The lack of awareness on depression and practices of stress management among Advanced Level students in Sri Lanka has led to many preventive programs. Evidence suggests that preventive measures should commence from the teen years itself. This study was conducted to assess the prevalence of depression and practices of stress management among Advanced Level students in Negambo area and a description of their practices of the time management and the mental relaxation exercises.

**Methods:** A descriptive, cross-sectional study among A/L students in a private tuition class in Negambo area was done. A sample of 170 was selected randomly out of 398 students. Data was collected using a self-administered questionnaire and analyzed using descriptive statistics.

**Results and Discussion:** This study showed more than 50% of students suffer from minor anxiety attacks and 30% of students have a normal mental level. Another 5% of students suffer from severe anxiety and 2% of students suffer from severe depression.

**Conclusion:** Children with learning disabilities are more prone to experience social and emotional difficulties, as they often confront low achievement, academic failure, and performance anxiety, which over time may affect their self-esteem and confidence and trigger high anxiety and depressive symptoms. Therefore, the need for health administrators and policy makers to implement measures that would significantly identify anxiety and depression disorder and the need for agencies to train, encourage and empower school teachers and parents to provide continuous health education to students on mental relaxation exercise and time management is crucial.

**Key Words:** *Awareness, Depression, Practice, Stress management, A/L students*

**Awareness of exclusive breast feeding among postnatal mothers in Nawalapitiya District General Hospital, Sri Lanka**

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**Introduction:** Breast feeding is the best way to feed a newborn child, in all aspects such as physically, immunologically, and psychologically. It is the most important factor in lowering infant mortality. Exclusive breast feeding is described as giving a baby just breast milk and no other liquids or solids, with the exception of liquid medication or vitamin/mineral supplements. All moms should be concerned with breast feeding, which is a legal obligation for all infants under the age of two years and is essential for a child's growth. The study's goal was to assess the knowledge, attitudes, and practices regarding breast feeding among postnatal women at the District General Hospital (DGH) in Nawalapitiya.

**Methods:** A cross-sectional research was done among 154 postnatal women at the DGH - Nawalapitiya. The convenience sampling approach was used to approach the sample. The data was collected via a self-administered questionnaire. The analysis was done using SPSS version 16. Participants were at least 18 years old.

**Results and Discussion:** A total of 154 questionnaires were issued, however only 150 people returned completed questionnaire copies, resulting in a 97% response rate. The majority of the participants in the research sample (48%) were between the ages of 25 and 35. A total of 78 (52%) women were aware about breastfeeding properly and 60 (40%) had fair knowledge, and just 15 (10%) had poor knowledge. A total of 135 (90%) mothers expressed a favorable attitude toward future pregnancies by intending to breastfeed their children, and 90 (60%) intended to attend breast-feeding sessions.

**Conclusion:** Poor understanding, attitude, and incorrect behaviors about various aspects of breast feeding among postnatal mothers have a major influence on infants' health. The promotion of exclusive breast feeding creates a space for learning and demonstrating their practice.

**Key Words:** *Postnatal, Exclusive breast feeding, Mothers*

**Exploring knowledge and practices towards Covid-19 among adults living in Ibbagamuwa area in Kurunegala district, Sri Lanka**

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**Introduction:** Covid-19 is a disease that currently whole world is facing. It has become a pandemic for more than 2 years. It is spread through air droplets or touching the contaminated surfaces. Aim of this study is to explore the knowledge and practice towards prevention of Covid-19 among adults who live in Ibbagamuwa area.

**Methods:** This study was a descriptive, cross-sectional research. The study was conducted among 120 adults who are usually attending the welfare clinic in the Ibbagamuwa area in the Kurunegala district. The convenience sampling technique was used with a standardized, validated, interviewer-administered questionnaire for the collection of data. MS Excel statistical package was used to analyze collected data.

**Results and Discussion:** In this study, the distribution of responses of adult male and female participants towards Covid-19 is equal (50%), 100% of the adult are in the >35 age group. According to the results, the current practice level is higher in adults (99.1%) and the knowledge level is also at a high level (94.1%) among adults in the Ibbagamuwa area in the Kurunegala district.

**Conclusion:** The magnitude of study populations' knowledge and preventive practices such as proper handwashing, avoidance of handshaking, and physical distancing were modest to protect themselves from this highly contagious pandemic virus. Negatively skewed attitude, and poor practice regarding the Covid-19 pandemic, which needs urgent improvement. In this study, adults have the best theory knowledge level regarding Covid-19, as well as a high knowledge level of practices.

**Key Words:** *Covid-19, Knowledge, Practice, Adult, Sri Lanka*

**Assessment of the factors affecting job satisfaction for newly appointed government sector nursing officers in a tertiary care hospital in Kandy, Sri Lanka - 2020**

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**Introduction:** Job satisfaction is defined as the extent to which an employee feels self-motivated, content and satisfied with his/her job. Job satisfaction happens when an employee feels he or she has job stability, career growth and a comfortable work-life balance. This implies that the worker is satisfied at the job because the work meets the expectations of the individual. The aim of this study was to assess nurses' job satisfaction and factors which are affected on job satisfaction.

**Methods:** A hospital-based, descriptive, cross-sectional study was conducted using a self-administrated questionnaire to collect the data according to random sampling, among 65 newly-appointed nurses who had work experience less than two years at teaching hospital, Kandy. Data analysis was carried out using Microsoft Excel and SPSS software.

**Results and Discussion:** Majority of participants (90%) were female nurses while very few (10%) were male nurses. When considering the highest education level, the majority of nurses (66%) were diploma holders. Considering the work-related factors affecting job satisfaction, 85% of nurses have received a proper orientation program. Many nurses did not have an idea regarding ongoing training programs, promotion and annual transfer while 50% of nurses were not satisfied about the assignment scheduling. Under environmental factors, 79% of nurses were satisfied with the facilities which were provided by the hospital. Majority of the nurses (43%) could not work with the co-workers supportively, which affected the social factors. Regarding personal factors, although 78% of the nurses were satisfied with their salary, 54% of them did not have family support.

**Conclusion:** This study revealed that the main five factors for having low level of job satisfaction were; assignment scheduling, relationship between manager and subordinates, support from coworkers, communication between manager and subordinates and family support. Other factors like working conditions, respect from co-workers and career advancement opportunities may also influence a minor part for the employees.

**Key Words:** *Environmental, Job satisfaction, Nurses, Social, Work*

**A study on knowledge, attitude and practices on dengue fever among hospitalized patients at Teaching Hospital Anuradhapura**

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**Introduction:** Dengue fever is recognized as one of the major vector-borne disease and causes significant morbidity and mortality in tropical countries. Thus, evaluation of knowledge, attitude and practices of the general public is of great importance to improve integrated control measures. The aim of the study was to assess the level of knowledge, attitude and practices relating to dengue fever in 200 in ward patients who is under observation for dengue fever in two medical units at Teaching Hospital Anuradhapura.

**Methods:** A cross-sectional, descriptive study was carried out among dengue patients in two medical units at the Teaching Hospital, Anuradhapura from January to April 2019. Dengue patients were recruited through convenience sampling and interviewed with validated questionnaires to assess their knowledge about dengue fever. Data was analyzed using SPSS (version 21) analytical package.

**Results and Discussion:** From the respondents, 97% were aware that dengue disease is transmitted by mosquitoes. The media had an essential role in disseminating knowledge about dengue fever. Schools played an important role in disseminating health information among pupils. More than 90% of the people in the research seek medical help, and the majority of them took paracetamol as a home care. Mosquito nets (46%) and mosquito coils (34%) were the most often used preventative approaches, rather than eliminating breeding places.

**Conclusions:** Significant association was found between knowledge about dengue fever and educational level. Although knowledge regarding mosquito control measures was 80%, this knowledge of preventive measures was not demonstrable in practice. A change in the approach of the health education program should be focused based on these findings for effective prevention.

**Key Words:** *Dengue fever, Knowledge, Prevention*

**A study on the level of knowledge, attitudes and practices of preschool parents on management of childhood fever in Fuvahmulah, Maldives**

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**Introduction:** Fever is one of the most common reasons why children are brought to the doctor or to the hospital. Most fevers in children does not necessarily require medical attention, as the fever is usually caused by a minor viral infection like a cough or cold. The objectives of this study were, to understand the importance of home management of fever, assess parent's knowledge in the treatment of fever and also specially to explore home management of fever in children aged 3 to 6 years of age.

**Methods:** An online-based questionnaire was used to perform this study among parents in Fuvahmulah. It was made up of demographic information, as well as knowledge, attitudes, and practice related to the treatment of paediatric fever management. A total of 112 people took part in the survey. Participants gave their informed and signed consent before data was collected.

**Results and Discussion:** Parents (99.1%) identified a warm body as an associated sign of fever. 62.5% identified seizure is a complication. 57.1% of the parents were able to identify the normal temperature level of children. 44.6% identified the correct route of checking temperature by placing the thermometer under the armpit. 75.0% reduce fever by applying a sponge bath. This data shows the population is more conscious of what to be done when fever spikes. 45.5% chose to consult a doctor after 2-3 days. 69.6% agreed that medicine is needed on the first day of high-grade fever, whereas 30.4% disagreed.

**Conclusion:** This study demonstrates insufficient attitude and practice in regard to parents' management of fever in children. Although parents were able to identify fever as hotness of the body and seizure as the complication of fever, there is a need for awareness programmes regarding prevention of complications and how to assess if a child has high fever before administering antipyretics at home.

**Key Words:** *Fever, Seizure, Complications, Management*



**Assessment of the sick absenteeism among nurses of Indira Gandhi Memorial Hospital (IGMH), Maldives**

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**Introduction:** Absenteeism has been traditionally considered as a relevant problem of human resource management in a variety of sectors or organizations. Nursing is a unique profession where nurses have to do shift duties. However, they are more likely to get sick because they are subject to, non-occupational risk factors, and numerous occupational exposures as hospitals have many factors which can lead to absenteeism that may not change in near future. This study aims to assess the sick absenteeism among nurses of Indhira Gandhi Memorial Hospital (IGMH), Maldives.

**Methods:** This study was quantitative descriptive research that involves the systematic collection of numerical information using the purposive sampling technique. The research was conducted among 100 nursing professionals working in IGMH, the Maldives using structured, self-administered questionnaires. The data collected were analyzed using SPSS software.

**Results and Discussion:** The majority of the participants have stress-related issues that are 38.7% and the outbreak of diseases that is 32% and way of management is 12.8% in both gender views. However, the unequal distribution between genders shows that nursing is still a predominantly female occupation. Furthermore, as the entire population comes from the same hospital, the present study allows us to evaluate and compare behavior in view of certain factors, such as stress-related issues, the outbreak of diseases, and management styles.

**Conclusion:** Findings reveal that factors such as stress-related issues, the outbreak of diseases, and management ways have a positive effect on the absenteeism of nurses. Females had a higher number of sickness absence episodes due to the presence of more female nurses in IGMH. Therefore, improvements in ergonomic and infection control programs, such as more coverage of the flu vaccine and providing principles of personal protection, increasing the number of male staff, and reducing stress-related issues have become a need.

**Key Words:** *Absenteeism, Sickness absence, Nurses, Indhira Gandhi Memorial Hospital*

**A study on work-related burnout among Maldivian nurses currently working in the Maldives - 2020**

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**Introduction:** Burnout arises as a result of the growing gap between the employee and the demands of the job. Nursing is fundamentally a difficult and stressful job in a complicated organizational environment. Extra pressure, resulting in burnout and getting drained, have a negative impact on nurses' well-being, patient safety, and the health system as a whole. The aim of this study was to assess burnout among Maldivian nurses working in the Maldives.

**Methods:** A descriptive, cross-sectional study was conducted among a 100 nurses working in the Maldives, who were approached through a snowballing sampling method. A questionnaire with demographic information and the Maslach Burnout Inventory (BMI) was used to collect data through self-administered questionnaire and collected data was analysed descriptively.

**Results and Discussion:** From the data collected, 35% of the respondents felt emotionally drained by their work a few times in a year and 26.7% a few times per month, whereas 10.9% never felt emotionally drained by their work. However, a significantly low amount of percentage (16%) felt emotionally drained by their work a few times per week and felt emotionally drained by their work at least once a week (6.9%), whereas 3% felt emotionally drained by their work every day and some felt emotionally drained by their work at least once a month (2%).

**Conclusion:** The leading cause of burnout among nurses is shown to be occupational variables such as shift work, workload, and role clarity. Good management and leadership, nurses practice environment, stress reduction measures, emotion, and problem-focused coping mechanisms decrease the risk of nurse's burnout can help in job satisfaction.

**Key Words:** *Burnout, Medical, Nursing, Drain, Prevention*

**Assessment of the levels of awareness on chronic kidney disease among chronic kidney disease patients in Polonnaruwa district, Sri Lanka**

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**Introduction:** Kidney (renal) disease has become a global issue while Sri Lanka also shows an increase in number of renal diseases, chronic kidney disease (CKD) being the major renal disease currently Sri Lanka is facing. It is predicted that the incidence of renal failure and need for renal transplantation will further rise in the future as there is a rapid increase in diabetes mellitus and subsequent increase in diabetic nephropathy in Sri Lanka. Diabetes, hypertension, and the various forms of glomerulonephritis are well recognized etiologies for CKD. It causes a huge burden to our economy and healthcare resources. Thus, it is crucial to assess the levels of awareness on CKD among patients with CKD regarding risk factors.

**Methods:** This study used a descriptive, cross-sectional method with randomized sample design among family members of CKD patients aged 20 to 60 years old. The study sample consisted of 100 people from Kusumpokuna village. A self-administered questionnaire was used to collect data and analysis was done using SPSS version 25.

**Result and Discussion:** From the participants 77% were males and majority of the participants were above the age of 50 years. Only 40% of the participants had a good understanding of CKD and associated symptoms. Furthermore, 60% of the participants in the research thought that CKD will have a negative influence on their family in future. A smaller fraction of the study population (40.4%) had appropriate understanding about CKD.

**Conclusion:** Majority of the participants were not aware about the disease, typical symptoms, and health precautions to avoid CKD. Raising awareness and educating people about CKD will enhance the quality of treatment and quality of living with the disease.

**Key Words:** *Chronic, Kidney, Awareness, CKD, Renal*

**Associative stigma due to work in mental health among mental health nursing professionals in a government institute in Sri Lanka**

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**Introduction:** Stigma is a multifaceted and deep concept, but society leads this to misunderstandings and misconceptions. Regarding people with mental conditions, society labels them as incompetent, reckless, unpredictable, and dangerous. Even among mental health professionals, associative stigma was widespread, and it was linked to sociodemographic characteristics and lower job satisfaction. The aim of this study is to determine whether or not psychiatric nurses experience associative stigma as a result of their work in the mental health field.

**Methods:** A total of 25 nurses were chosen from NIMH's 200 registered nurses and nursing managers. Data was collected from wards that provide care at all levels of nursing. The data was collected through a quantitative method using a questionnaire and the Likert scale, which is used to evaluate the agreeing and disagreeing of participants.

**Results and Discussion:** Unfavorable reactions of others highly affect their job satisfaction. 17 nurses' (68%) feedback has fallen into high scale. 84% of employees are ashamed working in mental healthcare. 72% noted that people make jokes about working in a mental healthcare setting. 60% are directly shown to be reluctant to tell that they work in mental healthcare. 64% directly think of themselves as less of a person who works in mental healthcare settings. 76% think that mental health related work is dangerous.

**Conclusion:** The negative stigma associated with mental health services lead to low work satisfaction and service quality. Lowering negative stigma and increasing staff's desire will help in improving job satisfaction and providing much better service to the client. 68% clearly demonstrates how unfavorable reactions of others can be.

**Key Words:** *Likert scale, Stigma, Misconceptions, Job satisfaction, Psychiatric nurses*

**Knowledge and practices on vitamin A mega-dose supplementation among caregivers of children under 5 years old in Imbulpe MOH area**

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**Introduction:** Vitamin A supplementation is one of the best-proven and most cost-effective interventions to improve vitamin A status and save children's lives. The aim of this study is to determine the knowledge and practices influencing vitamin A mega-dose supplementation among caregivers of children under 5 years old attending a clinic at Imbulpe MOH area.

**Methods:** A descriptive, cross-sectional study was done. A self-administered questionnaire was distributed among conveniently-selected 100 caregivers of children under 5 years. The collected data was analysed descriptively.

**Results and Discussion:** Vitamin A supplementation is one of the best-proven and most cost-effective interventions to improve vitamin A status and save children's lives. Half of the respondents agreed that inadequate vitamin A supplementation in the form of food causes uncured ailments (50%) and 71% agreed that insufficient vitamin A intake causes night blindness and dry skin. Furthermore, 75% were aware that Vitamin A can be administered via a sonic route through chemical capsules, tablets, syrups, and fortified meals.

**Conclusion:** The overall knowledge level regarding vitamin A mega-dose supplementation and its benefits as responded by the caregivers were relatively high. However, this knowledge/awareness was not reflected in their practice. However, almost two-thirds of the children received vitamin A mega-dose supplementation from MOH or midwives during their home visits.

**Key Words:** *Vitamin A, Supplementation, Practices, Caregivers, Knowledge*

**Tendency of reading books in leisure time among staff nurses in Teaching Hospital - Anuradhapura**

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**Introduction:** People who read regularly have shown positive impact of productivity and creativity. It increases empathy as well as the vocabulary. Nursing is a stressful career and reading is a good method to relieve stress and also gaining knowledge. The objective of this study is to examine the tendency of reading books in a leisure time among staff nurses in Teaching Hospital - Anuradhapura.

**Methods:** A descriptive, cross-sectional study was done. A self-administered questionnaire was distributed among a conveniently-selected 200 nurses in teaching hospital Anuradhapura. Data was entered into Microsoft Excel sheets and descriptively analysed.

**Results and Discussion:** Among the participants, 29.1% of nurses prefer newspapers, 22.6% prefer religious books, 19.9% prefer novels, 12% prefer short stories, 15.6% prefer nursing related books, and 0.9% read other books. 82.6% of the nurses said that family support influence increasing their reading habits in their day-to-day life. 77.9% said that availability of library facility improved their reading habits. 71.7% of the nurses said that learning material availability improves their reading habits, which represents 93.7%. 70.1% of the nurses are motivated to read to improve their profession. 55% of the nurses are motivated to recommend reading to friends. 82.9 % nurses are motivated to read for enjoyment. 86.4% are motivated to read as a relaxation therapy. Study revealed that most of nurses spend their time watching television and listening to music.

**Conclusion:** Users complain of having no time to read; however, the study revealed that they spend much time on watching television and listening to music. Nursing managers are aware of creating good working conditions. Nursing leaders need to be informed that nurses are interested in newspaper reading. There is a huge demand for a good library. The nurses need to be educated about the importance of reading.

**Key Words:** *Nurses, Reading books, Leisure time, Working times*

**Level of knowledge and awareness of nursing staff on healthcare waste management system in Base Hospital - Mahiyangana**

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**Introduction:** There is a huge waste generation due to the rapid growth in world population. Efficient waste management is critical for healthcare institutions because medical waste can be pathogenic and environmentally hazardous and also because of the health risks, fines, and damage to healthcare institutions' reputation. The main objectives of this research are to describe the current practices, related issues and to evaluate the level of knowledge and the awareness of the nursing staff on healthcare waste management system in Base Hospital - Mahiyangana.

**Methods:** A descriptive, cross-sectional research was done including nursing staff aged from 18 to 60 years at hospital with at least 5 to 10 nurses (minimum) from each ward. Nurses who were not willing to participate were excluded from the research. 120 nurses were randomly selected from different departments such as ETU, ICU, theatre, OPD, etc. The data analysis was done using the SPSS-23 statistical package.

**Results and Discussion:** Negative attitude among the staff to update their knowledge about accurate protocols were identified. Majority of the staff were aware of PPE and color codes. New staff possess the same levels of knowledge and practice regarding the protocol as the experienced staff, which is an admirable and a reputable fact for the hospital.

**Conclusion:** Clinical waste management in Mahiyangana hospital was at a satisfactory level but with some major risks. Therefore, protocols need to be displayed daily and should support to develop positive attitudes among the nurses and recommend to organize knowledge-sharing sessions on proper waste management, policies and practices regularly.

**Key Words:** *Hospital waste, Waste management, Nurses, Knowledge, Hazards*

**Knowledge on type-II diabetes mellitus among diabetic patients being treated in District General Hospital - Matale, Sri Lanka**

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**Introduction:** Diabetes is a chronic disease that occurs either because of impaired insulin secretion, impaired insulin action or both. Hyperglycemia, or raised blood sugar, is a common effect of uncontrolled diabetes and over time, diabetes leads to serious damage to many of the body's systems, especially the nerves and blood vessels. Knowledge regarding diabetes is one of the main things that can fight against the disease. Diabetic patients are the most vulnerable groups that can be affected due to lack of knowledge. Evaluating the knowledge among patients will help in creating appropriate strategies in better managing the condition. This study was focused at assessing the knowledge on type II diabetes mellitus among diabetic patients in two selected medical wards in District General Hospital (DGH) - Matale, Sri Lanka.

**Methods:** A descriptive, cross-sectional study was carried out among 100 diabetic patients. Participants were selected from two selected medical wards in DGH - Matale, Sri Lanka by using convenience sampling technique. A self-administered questionnaire was used in this study to collect data from participants and collected data was analysed descriptively.

**Results and Discussion:** Majority had a low-to-moderate level of awareness regarding the condition diabetes. Majority of the participants did not have adequate knowledge regarding gestational diabetes mellitus (20%), methods of prevalence (24%), blood glucose investigations (HbA1C - 20%) and normal values of blood glucose (44%). However, they had sufficient knowledge on complications (73%), recommended food habits to control diabetes (67%), general knowledge (51%) and lifestyle modifications (76%) related to diabetes.

**Conclusion:** Majority of diabetic patients had low-to-moderate awareness regarding the condition diabetes. However this awareness has led to some changes in disease prevention and control. The patients are not sufficiently equipped with the knowledge to comprehensively prevent and control and manage the condition. Further research studies are warranted to be done regarding knowledge, practices, attitude and investigations related to diabetes.

**Key Words:** *Knowledge, Diabetes mellitus, Type-2, Prevalence*



**Knowledge and practice of foot care in patients with diabetic wounds in surgical units and diabetic clinic in District General Hospital - Nuwara-Eliya**

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**Introduction:** Diabetes mellitus (DM) is a spectrum of metabolic illnesses marked by persistently high blood sugar levels. Frequent urination, increased thirst, and increased hunger are all signs of elevated blood sugar. Diabetes, if left untreated, can lead to a slew of consequences. Diabetic nerve degeneration can result in the loss of feeling in your feet. Diabetes can also limit blood flow to the feet, making it more difficult to repair injuries and fight infections. You may not notice a foreign object in your shoe as a result of these issues. You may acquire a blister or a pain as a result. This study aims to assess knowledge and practice of foot care in patients with diabetic wounds in surgical units in DGH - Nuwara-Eliya, to assess the knowledge and attitude related to diabetic mellitus and to identify environment and socioeconomic factors related to diabetics and wounds healing.

**Methods:** A descriptive, cross-sectional study was done to determine knowledge and practice of foot care in patients with diabetic wounds. The study was conducted in the DGH - Nuwara-Eliya. Using a convenience sampling method, 100 patients attending to the NCD clinic were selected and a structured questionnaire was provided for all the patients. Data analysis was done descriptively.

**Results and Discussion:** Accordingly, the highest portion of respondents was below five years of being diagnosed as a diabetic patient. Considering the contributing factor of formation to diabetic ulcer, out of 100 respondents of sample, 66% of respondents believe that diabetes mellitus itself can decrease flow to their feet, 65% of respondents believe that diabetes mellitus decrease sensation, and 46% of respondents have checked blood glucose levels weekly.

**Conclusion:** The findings of the study shows that the level of practice of foot care in patients with diabetic wounds, knowledge regarding prevention of diabetic ulcer is at a high level. By providing appropriate information to the patients and by providing proper health education, the percentage of patients who have a great knowledge will be increased.

**Key Words:** *Diabetic patients, Wounds, Foot care, Knowledge, Practices*

**Identify the impact of social media among the nursing students in a leading nurses training school in Sri Lanka**

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**Introduction:** Social media is one of the most popular media among the youth generation nowadays. But there are both positive and negative impacts from social media towards the youth. The aim of this study was to identify the impact of social media among the nursing students while investigating how social media has impacted on education, social behavior, and personal life.

**Methods:** A descriptive, cross-sectional study was carried out among 80 male and female nursing students studying in their final year of a nursing school in Kandana, using a simple random sampling technique. A self-administered questionnaire, consisting of closed-ended questions was used to collect data while data analysis was done using Microsoft Excel.

**Results and Discussion:** Majority (93.75%) of the participants were females while very few (6.25%) were male students. The majority of the people who used social media for more than one year and between five years were 71%. About 15% of people have used social media for more than five years. Academic impact of social media among nursing students average Likert scale value was 2.45, social behavior impact of social media among nursing students average Likert scale value was 4.10, and personal impact of social media among nursing students Likert scale average value was 3.28. There was a favorable correlation between social media and students' personal lives. Stress, self-confidence, and time management are the sub variables that have a negative impact on these social media.

**Conclusion:** It was concluded that the nursing students were using social media for educational objectives and that they were doing so in a beneficial way. It was also obvious that students were using social media in a favorable way to conduct their social activities.

**Key Words:** *Education, Nursing, Personal, Social media, Students*

**Examine knowledge, attitudes and practices on oral health among student nurses of Nursing Teaching School - Kandana**

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**Introduction:** Oral health information is beneficial, but nothing will be gained until mentalities and proclivities are established and absorbed. As nursing students, having a good knowledge of oral health and having good behaviours and attitudes will work best. It even can affect the personality of the person aim of the study is to examine knowledge, attitudes and practices on oral health among nursing students

**Methods:** This study was conducted by obtaining answers to a questionnaire from 80 students of Nursing Teaching School - Kandana. Research was done in a quantitative method. Direct questions, tick box question and 'yes' or 'no' questions were used. The exact results of each answer and the general calculation of each variable were calculated separately. Primary data was collected through self-administration.

**Results and Discussion:** The reactions of the students to the three primary variables were assessed in this section. They had a correct percentage of knowledge of less than 40%, and their knowledge of oral health was low. When it comes to mind-sets, roughly 67% of people have the right mind-set, which is fantastic. It was also shown that 69% follow proper dental hygiene practices.

**Conclusion:** Nursing students have good attitudes and good behaviours about oral health but they do not have a broad knowledge of oral health. Nursing students are the medical staff who will be nursing patients in the future, so they must have oral hygiene knowledge and attitude in the best possible way. More awareness programmes should be done to improve their knowledge.

**Key Words:** *Oral health, Knowledge, Attitudes, Practices, Nursing students*

# REFLECTIONS

## Reflection 01

### Reflection on being mindful of the atmosphere in a clinical setting

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**Description:** Reflective practice, in its own terms, is the process of thinking back on an event that had happened before and identifying the situation. It offers a framework for examining experiences, and given its cyclic nature lends itself particularly well to repeated experiences, allowing you to learn and plan from things that either went well or did not go well.

The particular incident occurred at the acute ward of a recognized mental hospital. The patient had been admitted to the hospital due to aggressive behavior and with the intentions of building a good rapport, I started a very friendly conversation. I was then called by one of the nurses who advised me on not standing close to the patients in ways that we cannot move away in the act of an emergency or assault.

**Feelings:** The feelings inculcated due to the incident can be divided as before, during, and after the incident. Being able to have a good conversation with the patient made me feel happy as well as excited since I was getting to know about the patient. This led to me being eager to provide with health advice and care to the patient. Being called upon by the nurse in-charge led me to being confused and scared as I was not sure why she had called for me. Knowing the reason for being called left me relieved as it was not a very drastic offence, but doing so led me to feel guilty for my carelessness.

**Evaluation:** Evaluating the feelings and experiences gained during the event, the positive and negative experiences that I gained can be highlighted as follows. The positives being the chance provided for me to understand and learn from my mistakes as well as the situations that can arise due to carelessness. It was also a great learning factor to be dealing with positive and negative aspects in the clinical settings. As negative impacts, there were the loss of confidence in myself, the lack of experience and also the lack of practice.

**Analysis:** When analyzing the incident, the situation helped me to identify my mistakes and problems while being with patients on real-life scenarios. Nurses in positions of responsibility should be particularly mindful of the atmosphere of thinking in place and consciously develop an environment that stimulates and supports a variety of viewpoints. (Papathanasiou et al., 2014).

This incident led to the learning aspects on being careful and to think wisely about the situations that will arise from one act of negligence. All patients deserve the maximum care they require and as a nurse, we must know to respect every patient. After talking with my supervisors and sisters from the hospital, I realized I need to develop my clinical skills and knowledge, as well as not to be careless before doing anything. It also led to the learning aspects on being wise about the situations and analyzing, including the aspects that will arise from the acts of negligence.

**Conclusion:** The primary goal of conducting a reflection is to learn from and overcome the mistakes we made during our internships and practice. Considering all the experience and the mistakes I have done within the incident, it has been a good learning experience and an opportunity to identify my mistakes. The incident also serves as a setting to improve my clinical skills as well, together with the learning experiences.

**Action Plan:** The action plan tells us what measures we could take if we have to face similar incidents to the one that has occurred previously. In the event of such incident, as described above, it is important to be mindful of our actions and to always be aware of the patient's history and mental status as means to protect ourselves as well as the patient. Safety is of the utmost priority when dealing with such patients. It is also important to improve the skills, knowledge, and experience of oneself that are required as a nurse to meet set standards of quality.

## Reflection 02

### Reflection on nasogastric feeding – gap between heoretical and practical knowledge

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**Description:** I was assigned for a 91-year-old female patient with encephalopathy and altered behavior, with a medical history of depression, hypertension, hyperlipidemia, anemia and a surgical history of an angioplasty. She was also with a nasogastric (NG) tube and a urine catheter. She had no-to-very-little response verbally as well as nonverbally. At around 10 am, I was asked to give the NG feed with 200 ml of soup. I first poured 30 ml of water into the nasogastric tube and then started to give the feed slowly. After I gave half of the feed successfully and poured the other half of the feed, it did not go smoothly as the first part and got stuck in the middle. I tried to lift the tube a bit up and correct the bended points in the feeding tube but the feed still did not move. Then the in-charge nurse came and took the feed that was stuck by aspirating, mixed the feed with water to dilute it and gave it back to the patient. The nurse finished the feeding procedure with 30 ml of a flush of water to clear the tube. Later when the in-charge nurse explained about the procedure and the mistakes I had done, I realized that I not only forgot to check the thickness of the feed, but also forgot to check the positioning of the tube before administrating the feed.

**Feelings:** When I was assigned to the procedure, I was so excited and confident to perform the procedure since I have performed it a few times, earlier. During the procedure, after giving half of the feed without any difficulties, I felt happy and relaxed. After identifying my mistakes, I was scared and worried about the patient because of the discomfort she had to face due to my actions.

**Evaluation:** I learned the importance of providing quality care and to be more self-aware with my work. I also learned the importance of checking the positioning of the tube to avoid mal-positioning and checking the consistency and quality of the feed to prevent clogging to decrease the chance of infection, avoid discomfort and patient getting aspirated on the feed. However, it caused patient discomfort, decreased patients` satisfaction toward nurses and the hospital and I might have risked the patient for getting aspirated on the feed, abdominal discomfort, nausea and vomiting.

**Analysis:** When analyzing the case scenario, I understood that it is truly essential to be well acknowledged about the procedure with correct steps, expected outcomes and adverse effects to provide a better care for the patient. I failed to perform the procedure correctly due to lack of attention, too much excitement, even I was well aware about the procedure and had performed it before few times. If I had done the procedure more carefully and in a well aware manner, I should have identified that the feed is too thick and I checked the positioning of the tube before even starting the procedure. It might have saved time and the discomfort that the patient went through.

**Conclusion:** This case scenario reflects the importance of gaining and maintaining knowledge and experience regarding every procedure to provide a better nursing care for the patients. Every patient should be monitored carefully before, during and after every procedure to prevent further complications such as vomiting, nausea, infections, allergies, abdominal discomfort, abdominal swelling and to maintain an effective patient outcome.

**Action Plan:** Gaining more experience regarding the procedure is the most important part in delivering a better care for the patient. Observing each patient according to their unique complications and expectations, observing other senior nurses, performing procedures under an experienced nurse, maintaining effective communication will help to correct mistakes, gain more experience and maintain effective patient-nurse relationship.

## Reflection 03

### Reflection on management and safety measures in handling patients in a psychiatric ward

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**Description:** Myself and a colleague were assigned to a female intermediate ward. A patient was sitting on a bed and we introduced ourselves to the patient and had a small conversation. While talking, she was playing with a handkerchief. It suddenly fell. I took a step with the intention of allowing her to pick it up and instead, I accidentally trampled it. I moved away from the patient and said that I was sorry. She immediately picked it up, ignored me, and went away. Then my friend and I decided to check her BHT. This patient was diagnosed with a schizo-affective disorder and had symptoms of OCD. We informed a nursing officer of the incident and she advised that it is always better to read the BHT first and to have a safe distance from the patient.

**Feelings:** Before the incident, I was excited because it was the first day in a new clinical setting and content as the patients were willing to talk to us. Meanwhile, I was slightly disturbed to see the patient playing with her handkerchief. During the incident, I was shocked when I trampled the patient's handkerchief and was feeling guilty and annoyed as I failed to build a rapport. After the incident, I felt relieved that the patient did not become aggressive. I regretted for not reading BHTs before talking to the patients and was thankful because the nurse taught me something important.

**Evaluation:** I got the opportunity to experience the practical aspect of what I studied about psychiatric conditions. The incident taught me that I must be careful when dealing with them. I realized the mistakes I had made. Therefore, the possibility of repeating the same mistake was prevented by this incident. I was capable of managing this situation effectively because the nurses were cooperative. However, I did not have enough of a gap with the patient. I approached the patients without reading their BHTs. I failed to build a healthy rapport with the patient and ensure patient satisfaction.

**Analysis:** OCD can predispose to schizophrenia because the symptoms of one disorder can coincide with another. Treating OCD can prevent and improve the symptoms of schizophrenia (Zagorski, 2014). Psychiatric nursing must be flexible to provide individualized care by incorporating safety measures to manage harmful behaviors patients can impose (Slemon, Jenkins and Bungay, 2017). Knowing the patient's history is linked to building a good relationship. This enables patient-centered communication and patient satisfaction (Ohm et al., 2013). Patient satisfaction enhances early recovery. They must be aware of their problems to make decisions and independently obtain the recommended treatment (Al Hathloul et al., 2016).

**Conclusion:** It is crucial to be aware of the patient's condition before interacting with them. Psychiatric patients must always be dealt with extra attention while maintaining their safety. This incident is a fine example that I can use to reflect on my practice based on what I have learnt. In maintaining the quality of care given to a patient, the patient's condition can be improved. I should be more self-aware when taking care of psychiatric patients as their moods can change and they can exhibit aggressive behaviors. As healthcare providers, our aim should be to maintain patients' comfort and satisfaction.

**Action Plan:** The hospital can organize workshops and seminars for the staff to educate about psychiatric patients, especially about helping the patients to manage their emotions. Notices and information charts related to taking care of psychiatric patients can be hung on walls in the ward's corridors. From next time onwards, I shall make sure to check the patient's history thoroughly before dealing with them. I will use my knowledge and skills to ensure patients' safety and comfort, especially when dealing with these vulnerable groups of patients. By working more actively in my clinical hours, I will get the maximum benefit and gain more experience. I will pay attention to the safety of myself and the safety of all the patients.

## Reflection 04

### Reflection on clinical practice on nasogastric feeding by the student nurses

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**Description:** As a principal of the nursing school, one of my duties is to supervise students during their clinical placements. One day I was supervising two student nurses while they were doing nasogastric (NG) feeding to a 65 years old bed ridden, paralyzed patient due to Stroke in neurosurgical unit in District General hospital. The students seemed a little tensed when I was supervising the procedure. As per the procedure, they have to confirm the location of NG tube, cross check the personal details with the drug sheet, consider the privacy and safety of the patient, well-position the patient and maintain a good rapport with the patient. Unfortunately, none of them were done properly. Student nurses were not aware on the names of the drugs, they did not communicate well or inform the patient on the procedure, most importantly they did not position the patient properly for the NG tube feeding. I was very disappointed to see the whole procedure. Then I immediately stopped the process and propped up the patient and completed the procedure. After that I discussed and explained the student nurses all the errors they made.

**Feeling:** I was very disappointed to see the whole procedure that the students were performing during that day. I was very angry towards the end of the procedure. I was little happy that I observed the process and stopped as I avoided any harm to the patient. I was very unsatisfied with the student nurses on their level of performance.

**Evaluation:** Students should follow the correct techniques of each nursing procedure, especially they need to understand the underlining principles of each nursing procedures. The positives of the event were that I had a chance to observe their procedures so that I was able to reflect on the issues in the training and system. Students had a chance to treat and do a NG feeding and there was no any harm took place. The negatives of the sessions where that student nurses could have harmed the patient by feeding in the wrong position and aspiration could have happened. Patient's family lost the trust on the student nurses after I interrupted and corrected the procedure.

**Analysis:** This event helped me to understand the short comings in the training and clinical competencies that a nurse should develop. The utilization of the nursing process to guide care is clinically significant going forward in this dynamic, complex world of patient care. Critical thinking skills play a vital role as we develop plans of care for patients with multiple comorbidities and embrace this challenging healthcare arena. When I investigated, I realized that the students had completed the theory but they did not practice NG feeding. Students have had lack of clinical practice. Therefore, they have not had competency in each technique. Even though these students had theoretical knowledge on NG feeding, they could not perform it accurately while delivering to real patients. According to the curriculum the practice hours are little limited therefore not every student will get a chance to practice all the techniques they study. Even though they practice, it is not sufficient for few students as they need an enormous time to convert their theoretical knowledge into practical knowledge and also to bridge the theory-practice gap. Thus, the incident made me think towards reflecting back on the curriculum and the existing trainings.

**Conclusion:** The gap between theory and the clinical practice has always been a challenge for novice in any field. This event is an ideal example of such an event. Lack of practice can lead to



low quality of care. Therefore, students should practice each technique and get their selves competent on each procedure before directly dealing with the patients to avoid incidents like this in future.

**Action Plan:** Reflecting on this case made me implement new strategies to improve the theory and practice gap. Such as increasing the practical hours, case study presentations, appointing mentors, getting students to present reflection portfolios.

## Reflection 05

### Reflection on importance of concentration during procedures

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**Description:** The particular incident occurred at an on-site Covid-19 rapid antigen testing center. Particular day had less samples to be tested and I was handed the sole responsibility of conducting all the parts of the test. Samples were collected and when proceeding to test the samples without conducting the quality control tests, one of the kits had failed to run which led to the loss of a patient sample. Samples had to be collected again which led to loss of time and trust of the client.

**Feelings:** The feelings inculcated during the incident is being segregated under before, during, and after the incident. On realizing that I had to perform the rapid antigen testing all by myself, I was happy because I received the chance to perform all the processes of rapid antigen testing for the first time. Using the experience gained, I was excited to perform the tests within a short time period. As the theoretical aspect of the test was known, I was confident in partaking the procedure. But as it progressed and one of the test kits failed to function, I was perplexed with the situation at hand and it led to a feeling of disappointment on myself, since my rapport and trust with the staff I had created were compromised.

**Evaluation:** Evaluating the feelings and experiences gained during the event, the positive and negative experiences that I gained can be highlighted. One of the major positives of the process can be highlighted as the ability to conduct the tests by myself, without any supervision. Considering the significance of dealing with both positive and negative situations that may emerge in the therapeutic context, this incident provided me with the opportunity to do so on my own was also a key highlight. As a result of my negative experiences, I was able to recognize defective cassettes in guaranteed products. Also, as a result of this occurrence, I learned how easy it is to lose the faith that the organization's staff has placed in me due to my negligence. Despite my overwhelming confidence, I felt a lack of experience.

**Analysis:** Analyzing the incident, the situation assisted me in identifying the issues that can occur as a result of a lack of focus and concentration when executing the procedure. My supervisor taught me the importance of concentration after this process and I realized the necessity to improve my practical skills and knowledge of this procedure, as well as how important patience and grit are in not losing focus during a procedure that is critical in identifying a disease. Because the diagnosis can alter, the entire operation was incorrect as a result of a simple error.

**Conclusion:** The primary goal of conducting a reflection study is to learn from and overcome the mistakes we made during our internships at private organizations. As previously stated, it was the first few weeks that I had performed such a procedure, and with my clinical placement experience, I was eager on being very conscious of my surroundings, which made me focus on the operation very effectively. Because I had to execute the procedure hurriedly, I was unaware of the lack of procedures, which resulted in the mishap. Following this occurrence, I learned that it is critical to run control tests in such operations in order to ensure the functionality of the test kits.

**Action Plan:** The action plan educates us or the person reviewing this on how to improve and deal with the scenario I encountered if it occurs again. According to the circumstances I was in, I would expect a lot better outcome the next time I am presented with a similar situation, because it was a negative experience. My action plan is to give the process extra attention, practice performing the procedures correctly, and remove any anxiousness or over-excitement. I will not be too confident, no matter how skilled I am at the task. I should ensure to maintain discipline when performing a procedure, as distraction can lead to errors and doing so will enable us to learn skills like the need to follow protocol. I would also ensure that equipment function checks and other inventory are performed well in advance of laboratory processes.

## Reflection 06

### Reflection on tissue sectioning in histology department of a private hospital in Sri Lanka

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**Description:** Reflective practice is linked to learning from experiences and is regarded as a critical strategy for health professionals who want to continue learning throughout their careers. Gibbs' reflective cycle provides a framework for evaluating experience, especially among healthcare professionals, and its cyclic form allows it to span six stages of the experience being evaluated.

I was in the histopathology section of the laboratory of a private hospital in Sri Lanka. My supervisor asked me to observe the steps of tissue sectioning, done using rotary microtome. After observing, I started to do the procedure. I was continuing the procedure with no problem for a while. When I was trimming it using the blade, the clamp was not reachable enough to the blade to obtain the first section. So I adjusted the clamp as it would face more towards the blade. When I again started trimming, the tissue block got detached from the cassette and fell off. When I showed the supervisor what happened, he placed the tissue inside a plastic cassette and kept it in the embedding machine to do the procedure again. Anyhow, later I successfully completed section cutting of some other specimen blocks.

**Feelings:** I was feeling excited and bit nervous during the procedure to see the final results. I also felt worried, guilty, and sad because of my misconduct. I did not ask from supervisor before adjusting the clamp, because I thought it was a simple task. At the end of the incident, I felt relieved because I was able to learn the procedure upon the guidance of my supervisor. Now when I look at the event, I feel confident in tissue embedding, section cutting and mounting the specimen on to slide and I have gained more practice on adjusting the thickness of the section in accordance with the blade to smoothly obtain the specimen without damaging it.

**Evaluation:** Although it was a stressful event, I learnt section cutting using the rotary microtome with proper techniques. So in my point of view, I should not have proceeded without asking my supervisor. In addition, I learnt that adjusting the cassette clamp and section thickness should be done with much care to make sure that the tissue block will not fall off from the cassette. The good side of this event was, my supervisor pointed out my mistake rather than scolding and demotivating me. He observed my skills on conducting the procedure and helped me to do it efficiently.

**Analysis:** A microtome is a specialized precision cutting equipment that slices portions from a block of implanted tissue accurately and repeatedly. Microtomy, also known as section cutting, a technique for slicing tissue specimens into very thin slices for microscopic analysis in order to detect anomalies or aberrant appearances in the tissue, as well as the study of various components of cells or tissues. Rotary microtomes are more precise and make it easier to obtain homogeneous sections. For ideal trimming, it is always encouraged to take care of the specimen block well preventing detaching and falling apart. This stage of microtomy necessitates extreme caution since diagnostic tissue or the block surface can easily be damaged. The purpose of correctly trimming a block is to expose the tissue to a level where a representative section can be acquired in a cautious manner.

**Conclusion:** I learnt many new things that I did not know, by being a part of this experience. I tried to perform the section cutting procedure using the rotary microtome on my own after the supervisor demonstrated with correct techniques of using it. So basically, I gained knowledge and practice to operate the machine with confidence. Moreover, due to my own mistake on adjusting the clamp to an incorrect measurement, I realized the importance of this step, which I will not forget in the future.

**Action Plan:** It is encouraged to concentrate and focus on demonstrations shown by the supervisor before the practical. Thereby, finding details about the procedure from books, SOPs, catalogues,

and other resources would help to expand the knowledge. Next, improving skills on operating the microtome and section cutting, so that the tissue block will not detach from the cassette clamp. Moreover, always seek help from the supervisor whenever you feel incompetent. If there is nobody to ask, or the person you asked is unaware, then leave it aside and engage in a procedure that you have learnt and practiced well before. So these steps would help to minimize the errors that can occur pertaining to the practical.

## Reflection 07

### Reflection on time management and competency

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**Description:** Reflection is defined as the process of recognizing and/or expressing feelings, ideas, observations, and views regarding an event. The Gibbs' reflective cycle facilitates healthcare professionals' systematic reflection on their experiences in a specific scenario, event, or action.

On that particular day, I was asked to extract DNA from plant leaves in one of the top-rated research institutes. This experiment was conducted during the last three hours of the day, when I was worried whether I could finish the experiment successfully. I acquired all the required equipment, reagents, and specimen that were needed to experiment. The initial steps were carried out successfully and accurately on time. In one of the steps, I had to transfer the supernatant using a micropipette, which contains the DNA, into a clean microfuge tube. When transferring the aqueous upper layer, due to the unsteadiness of my hand, the bottom layer (call debris) was slightly disturbed. This resulted in contamination of the aqueous layer where a minute amount of the bottom layer was also transferred along with the aqueous layer. However, I proceeded with the remaining steps. The existence of well-resolved high molecular weight bands was not visible during gel electrophoresis. This was due to the micro pipetting mistake, as there was a significant amount of protein contamination in the electrophoresis.

**Feelings:** Before the incident, I was excited as it was my first time carrying out this experiment. Moreover, I was glad because I got the opportunity to study with a highly qualified supervisor. However, it was challenging to complete the experiment in such a limited amount of time. During the incident, I felt nervous and anxious when I was carrying out the first few steps, as I was thinking about the time where I had to complete the procedure in a short period. However, there was a rise in my confidence as I was able to conduct the first few steps accurately and on time. Nevertheless, I was horrified when the aqueous bottom layer was disturbed when pipetting out the supernatant. After the incident, I was feeling disappointed as I did not receive a discrete band during gel electrophoresis. However, it was relieving because my supervisor was able to identify my mistake. Furthermore, it was cheerful as I gained immense knowledge from the mistake.

**Evaluation:** When talking about the positive outcomes, I was able to complete the major steps accurately. Since my supervisor was a professional, I was grateful for the opportunity to obtain immense knowledge about the experiment and pipetting procedures. I was able to observe the highly-resolved DNA bands during electrophoresis from my colleagues' procedure. Moving on to the negative outcomes, I failed to pipette the aqueous supernatant layer successfully without disturbing the bottom organic layer. As a result, there was protein contamination in the DNA sample. The final goal of carrying out this experiment was not met, where highly-resolved DNA bands were not visible. This resulted in a waste of time, effort, and reagents.

**Analysis:** To meet practical requirements and to deliver accurate results, the term "excellent use of time" plays a significant role. Time management is, according to research, characterized as the ability to plan and time towards a goal. Mastering scientific practices or achieving competence in scientific inquiry is a necessary component of scientific literacy. According to studies, competence is developed on a foundation of basic clinical skills, scientific knowledge, and moral growth. In the formation of expertise, the integration of theoretical, practical, and metacognitive elements of expert knowledge into a coherent whole is a protracted process. It is essential to facilitate students' learning and integration of theoretical knowledge into practice during their time in higher education.

**Conclusion:** Especially in the field of healthcare, working in an irresponsible and less focused manner in placements is a professional issue. Highly-resolved DNA bands were not visible during gel electrophoresis due to protein contamination. This was mainly due to the unsteadiness of my hand and being worried about the limited time factor where I had to repeat the procedure. This

means that I have wasted all the reagents I used and also the time I spent on the procedure. Since these solutions will be employed in future studies, extreme attention and concentration are always required when executing such operations.

**Action Plan:** Pipetting skills should be improved as it is a major step in many experiments where significantly low volumes of substances should be pipetted. Concentrating and focusing only on the experiment is mandatory, rather than considering other factors such as time and being in a hurry to finish the procedure. Learning the theoretical components of the technique and having a thorough understanding of each step is crucial to prevent such blunders. Hence, any misunderstandings regarding the practical should be clarified from the supervisor before conducting the practical.

## Reflection 08

### Reflection on the importance of accuracy of a process

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**Introduction:** To promote experience learning, Gibbs (1988, p.49) developed his "organized debriefing." It was created as a continuous improvement cycle for a recurring experience, but it may also be used to reflect on a single event. The goals of reflective practice is to close the gap between theory and practice in order to increase care quality and encourage personal and professional growth.

**Description:** It was the last day of my internships at a leading research institute (genetics section) in Colombo district. We were given the task of extracting plant DNA with cetyltrimethylammonium bromide (CTAB buffer) on the first day. Plant genomic DNA was isolated from plant leaves and stored in the fridge (at -40 degree Celsius). On the next day, the in-charge of the laboratory was instructed to take the extracted DNA and check the quality of purified DNA. The in-charge instructed us to "quantify the extracted DNA using a NanoDrop spectrophotometer." I was shocked and nervous because I had no prior experience with that process and was volunteered to do the work based on my theory knowledge. NanoDrop equipment was cleaned and wiped using a special solution designed specifically for cleaning the lenses. After that, I continued with the BLANK procedure, standardizing the measurement with the QIAGEN FlexiGene (FG3 buffer). After completing all of the steps, the top layer of DNA (volume of 1 ml) was removed from the micro-tube and transferred to the NanoDrop stage using micro-pipettes. I covered the instrument as quickly as possible and pressed the measure button to receive the result on the computer. I was able to obtain a pattern of unrelated graphs that differed from standard patterns. I got my DNA concentration via NanoDrop (260/280 value >3.00), which is likewise a poor test (standard value 1.8-2.1).

**Feelings:** I was a little worried and stressed as I started my NanoDrop procedure because that sample was real and had been a very little sample. However, after watching the theory methods, I felt more confident. Each step has been done in a clear and precise manner, enhancing my confidence and reputation among other lab employees. Errors in DNA concentration made me feel guilty, ashamed, and low in self-esteem.

**Evaluation:** Any mistakes made during the laboratory testing process can have a negative impact on patient care, such as delayed reporting, misdiagnosis, and incorrect treatment. In certain cases, errors can be deadly. Contamination, calibration mistakes, blanking errors, and equipment repair failures during the analytical phase of handling NanoDrop result in an incorrect test result (obtained DNA concentration >3.11). Errors in the NanoDrop, post-analytical phase (computer analysis) result in ineffective patient treatment. Required to work on improving overall communication skills with teammates who can assist you in recognizing difficulties and gaps and providing rapid solutions that do not rely on books or theory but instead on experience.

**Analysis:** It is critical to acquire a rapid and accurate readout of DNA concentration and purity at many phases of molecular cloning. The concentration of the sample is estimated based on the absorbance values, and A260/A280 ratios are computed to show sample purity. On a scale with a maximum of 2.0, it is widely considered that DNA of relative purity will have an A260/A280 ratio of 1.8. A ratio of less than 1.8 shows that the DNA samples are contaminated with proteins and that additional purification is required. When I start with a contaminated DNA sample, there is a high probability that I will get erroneous results in my subsequent experiments. Reliable measurement of DNA concentration and purity is important for many application in molecular biology where accurate determination of DNA concentration is critical. Probably the faster and easy way to measure DNA concentration is using a spectrometer. But if I have wrong measurements and there are some contamination on the sample, like phenolic compounds, proteins or free nucleic acids, to

have a reliable measurement of DNA concentration is better to use quantification assays along with dyes - molecules that bind to DNA molecules in a specific way and perform the quantification of DNA concentration.

**Conclusion:** I should be more concerned about the processes because my laboratory report reflects on a patient's medicine and quality of treatment. Being careless and unfocused when it comes to placement is a professional concern. Prior to using any equipment, you need to ensure that it has been calibrated. All of the equipment in the lab should be kept in good working order and should refer to it before using. This will assist to reduce the number of errors that occur throughout the operation. When troubleshooting, look for a permanent answer, such as the gold standard. I need to focus more on minimizing contamination when dealing with real patient samples.

**Action Plan:** Effective communication is the most important basis for any workplace. I need to figure out a few different strategies to increase communication among my team members. I need to spend the time effectively in the laboratory, practicing all of the essential processes under the observation of the lab in-charge. SOPs for certain processes, equipment, and materials must be consulted before the operation is in order, to avoid complications in the future. Troubleshooting's ultimate objective is to restore the equipment back into service as fast and completely as feasible.



## Reflection 09

### Reflection on deficiencies in practical abilities, as well as professional skills of novice healthcare workers

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**Description:** Reflective practice is simply thinking about or reflecting on what you do. It's strongly related to the idea of learning from experience. Gibbs reflective model is one of the simplest tools which can be used in explaining a reflective study.

This incident happened, when I was attending my clinical placements in the neuro wards at a leading hospital in Colombo. The patient was a 67-year-old male patient, who had undergone a cranioplasty and was having acute lower limb weakness, mouth deviation on the right side and phlegm in the lungs. I was asked to treat him by my supervisor. The patient was given mobilization exercises, chest physiotherapy and suctioning. Initially, as usual, I positioned the patient in a lying position and introduced myself and explained about the treatment procedure before commencing the treatment. He was a bit unconscious and was not actively participating in the treatment. Anyhow, I was able to do the lower limb passive mobilization exercises to the patient. Before commencing the suctioning procedure, I started arranging the set up after gathering all the needed equipment. Then my supervisor came inside the room and checked the fixation, and he was not happy about it. He informed me that the way that I have fixed the suctioning catheters and the connecting tubes is completely wrong and asked me to observe well.

**Feelings:** Initially I felt so happy and full of confidence since I got a chance to treat a patient by myself at the ward rounds and was comfortable as I have practised the skills of performing mobilizations and chest PT techniques during my clinical practicum sessions. I was thankful to my supervisor for assigning his patient to me. During the treatment, the patient was not so cooperative with me which caused me to lose confidence. However, I was able not to show that in front of the patient and was able to manage it. I was feeling somewhat confused again and when my supervisor entered the room, I panicked. When he informed me that the fixation was wrong, I got really embarrassed and disappointed in front of both my supervisor and the patient.

**Evaluation:** The fact that the initial part of the treatment process was familiar to me was a positive fact to be noticed. Similarly, developing a positive working relationship and maintaining my confidence in front of the client were also positives. Moreover, since the supervisor did not bring any complaint towards me in front of the patient, I was able to carry out the procedure again, which was a noticeable positive outcome. The negative factors includes; failure in providing efficient care for the patient and the lacking of the patient's cooperation throughout the procedure and losing the trust of both patient and supervisor. Despite the supervisor's support, this incident may have cast doubt on the professionalism because of lack of experience and clinical exposure and practice.

**Analysis:** Suctioning is a technique for removing secretions and other semiliquid fluids from a patient's airway. To perform the procedure, we use a collection tube or catheter to apply negative pressure to the airways. Many newly qualified physiotherapists may confront their first on-call duty with little or no prior experience working with critically-ill patients or in a highly skilled field like intensive care. Mottram & Flin (1988) found that 'making decisions alone' and 'working with the acutely ill' were among the highest ranked of 28 stressful activities in a study that sought to

determine whether newly-qualified physiotherapists were affected by job pressures related to their lack of experience. In Thomson's study (2000), novice physiotherapists were described as lacking the necessary practical abilities, procedural skills, and confidence to deal with critically ill patients because of lack of clinical experiences.

**Conclusion:** This reflection displays a range of viewpoints, including inaccuracies in procedural and practical abilities, as well as knowledge and professional skills that physiotherapists should develop in order to provide adequate patient care. As a 'novice' in the field, one should be able to further develop one's own professional skills. The main learning that I got from this case scenario is to develop my practical skills, procedural skills, communication skills, and technical and hands-on skills. Keeping professional skills at work, particularly practical abilities in addition to theoretical knowledge, will increase enthusiasm for the profession while also producing outstanding patient results.

**Action Plan:** Improving my practical skills and receiving more practical instruction from senior therapists is the best approach that can be accomplished in the shortest period of time. Since the awareness of correct techniques is important for practical skills, I would like to study further on the techniques of suctioning procedure, via research studies or journals and through reading books. Furthermore, I would like to actively engage in my practical sessions and would like to take more chances to handle real patients with confidence in order to have a good exposure and to gain experience.

## Reflection 10

### Reflection on the importance of communication skills in healthcare profession

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**Description:** This reflection is conducted based on Gibbs' reflective cycle. I was attending clinical placement at a well-known private hospital in Colombo, Sri Lanka. The patient was a 43-year-old female, identified with bilateral temporomandibular joint (TMJ) pain and tenderness. I was advised to treat her with short-wave diathermy. Before starting the treatment, I ensured that the patient is free of all contraindications and positioned comfortably. After some time, the patient complained of not getting enough heat on the left side of the face which was more prominently affected. The supervisor and I then conducted the neon bulb test, which had indicated that the machine was working fine. The supervisor then suggested to use the small air-space plates, as the ideal diameter of the electrodes should only be slightly larger than the treatment area. At that point, I realized that I did not know the availability of small air-space plates at the physiotherapy department. Afterwards, an appropriate amount of heat was felt on either side. Later, I was advised to improve my critical thinking abilities and most importantly to voice out any doubts. This incident had proved the negative impact of poor communication skills on the efficiency of patient care.

**Feelings:** Firstly, I was grateful for the opportunity as it would help in expanding my clinical exposure. Further, I was excited and enthusiastic as it was my first time treating a patient with TMJ pathology. I was confident with the procedure, despite of not being familiar with the equipment at the department. I was contented for being able to conduct every step of the procedure quite efficiently. The patient's complaint had confused me as there was no visible fault in the machine. I felt disappointed with myself as I could not complete the procedure effectively. Later, I was relieved as I was able to deliver the expected treatment with the guidance and support of the supervisor.

**Evaluation:** I had experienced both positive and negative outcomes through this event. The positive outcomes were, being able to deliver the expected service and the reflective learning I achieved. This incident has also positively impacted on my clinical decision-making and critical thinking skills. Further, I understood the importance of effective communication to improve professional efficacy. Further, the patient's cooperation and the supervisor's support were considered as positive outcomes. The negative outcomes were the additional time taken for the treatment, moments of self-doubt and reduced effectiveness that would give poor health outcomes. Further, inadequate communication skills would have created doubts regarding overall professionalism and quality of care, damaging the trust and confidence existing between healthcare professionals and clients. This evaluation has proved inadequate communication skills to be the key problem of this scenario.

**Analysis:** This incident occurred due to the inadequate communication skills displayed as a novice in the healthcare profession. As a novice, the unwillingness and fear to voice out my concerns in an unfamiliar setting would be the key reason for this problem. Further, lack of confidence and clinical inexperience would have restrained clear communication. Effective communication is an essential skill that healthcare professionals require in practice to improve the quality and efficiency of care. If I had voiced out my doubts before starting the treatment, this situation might not occur. Research had revealed that, 'effective communication begins with a clear thought process. Further, critical thinking and listening competency are identified as an important part of the communication process. Therefore, to improve communication skills you must;

- Practice active listening and public speaking
- Improve critical thinking and decision-making skills
- Improve confidence and clarity in speaking
- Work on building self-confidence
- Practice expressing emotions appropriately in context

**Conclusion:** Through this incident I understood the importance of self-confidence and effective communication skills to deliver efficient care to the patient. Further, this incident taught me the importance of having adequate decision-making and critical thinking skills in overcoming critical circumstances encountered during clinical practice.

**Action Plan:** It is favorable that I practice active listening and public speaking with the support of honest feedback from colleagues. Discussions, debates and workshops should be conducted among colleagues to improve speaking, listening and thinking abilities. That would help in improving my ability of clearly and confidently expressing myself. Further, engaging in active learning will improve confidence in my knowledge and skills. Active learning would allow interacting actively with the learning process. Also, engaging in direct verbal communication and voicing out doubts appropriately would develop self-confidence. Further, peer group discussions, literature reviews and increased clinical exposure would support in improving clinical decision-making and critical thinking skills. Besides, improving practicing techniques, confidence and clarity in speaking would help in clear communication increasing professional efficacy.

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