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LIST OF ORAL PRESENTATIONS

Free Paper Session 1

OP001 **Cardiac autonomic functions in diabetes mellitus: a case-control study**
Ekanayake EMNK, Dunuwila KBS, Dharmakeerthi WD, Dilshan BC, Fernando RSR, Gallage RD, Dissanayake WGDMJC, Dissanayake DMBD, Farween MAM, Dharmasena GTR, Fernando LRU, Nanayakkara SDI

OP004 **Epidemiology of malaria infections in the phase of prevention of re-estsablishment of the disease in Sri Lanka**
Seneviratne S, Chulasiri MPPU, Thenuwara N, Aluthweera C, Mendis KN, Fernando SD

OP005 **Malaria infections acquired by personnel of the United Nations peace keeping missions: a challenge to the programme for the prevention of reestablishment of malaria in Sri Lanka**
Seneviratne S, Chulasiri MPPU, Thenuwara N, Mendis KN, Fernando SD

OP006 **Serial mapping of leprosy cases in Polonnaruwa district to identify hot spots**
Kahawita IP, Premarathne EMGTGVD, Suriayachchi N, Gunasekara MCW, Ranaweera KDNP, Wijesekara D, Boteju WGSR5, Wickramasinghe N

OP007 **Maternal satisfaction and knowledge of Early Childhood Development (ECD) related public health services**
Gunathilake AMCM, Perera KMN

Free Paper Session 2

OP008 **Factors Associated with Alcohol Consumption among Adult Males in Colombo**
Kumbukage MP, Thalagala NT, Kumarapeli V, Ranasinghe LI, Maddumahewa CV

OP009 **Positive parental history of diabetes is associated with early diagnosis, better self-reported dietary compliance and glycemic control among patients with type 2 diabetes**
De Zoysa PDWD, Weerarathna TP, Palagasinghe DR, Fonseka CL, Wasana KGP

OP010 **Caregiver burden and quality of life among family caregivers of advanced cancer patients attending palliative care clinic at National Cancer Institute (NCI), Maharagama – Sri Lanka**
Dharmakan MD, Senaratne L, Vidanapathirana J

OP012 **Is splenic stiffness measurement(SSM) better than Baveno VII criteria to predict oesophageal and cardio- fundal varices in patients with compensated advanced liver cell disease (cACLD)?**
de Silva AP, Niriella MA, Nishad AAN, Samarawickrama VT, Jayasundara H, Ranawaka CK, de Silva ST, Withanage M, Ediriweera D, de Silva HJ

OP013   Cultural adaptation and validation of the Sinhala version of the International Index of Erectile Function (IIEF)
Hewanayake WS, Silva FHDS, Indrakumar J

Free Paper Session 3

OP014   A study on genetic variants associated with Sarcoidosis in the Sri Lankan population
Nawagamuwa NWIS, Wetthasinghe KT, Rajapakse YN, Somasundaram P, Dissanayake VHW

OP015   Assessing reversibility of liver fibrosis in patients with transfusion-dependent beta thalassaemia following intensive chelation
Padeniya AGPM, Ediriweera D, Niriella MA, De Silva A, Premawardhena AP

OP016   An analysis of health expenditure in Sri Lanka over the past 20 years
Ekanayake EMNK, Keragala KASU, Dharmaratne SD

OP017   Impact of the present economic crisis on health-seeking behaviour in the general public of Sri Lanka: A comparative study between Western Province and Uva Province
Nilaweera AI, Fernando DR, Adikaranayake AMPR, Perera AN, Daksina TDT, Wijayatilaka NT, Nethmini ULT, Hettiarachchi EDH, Weerakoon KGSH, Jayalath WKDN, Wijayaratne D, Katulanda P

OP019   Genetic hybridization proved between cutaneous and visceral strains of Leishmania donovani within its natural vector Phlebotomus argentipes
Riyal FH, Paun A, Ferreira TR, Samaranayake TN, Sacks D, Karunaweera ND

Free Paper Session 4

OP020   Synergistic response of silver nanoparticles with carbon dots on staphylococcus aureus, pseudomonas aeruginosa and candida albicans
Jayasekara DMW, Karunathilake DN, Ranugge CTL, Dissanayake SDHS, Mirihagalla MKKM, Samarakoon DNAW, Peiris MMK

OP021   Trends of HIV incidence over the last two decades between Japan and Sri Lanka: a comparative study
Prasanga PTS, Alwis VKIU, Yamaguchi M, Nandasena HMRKG, Obayashi Y, Gunawardane DA

OP022   Leprosy case detection: an experience in Batticaloa district
Dharshini K, Sukunan G, Vernitharan V, Gunarajasegaram V

OP023 **Identification of type 2 diabetes patients with non-alcoholic fatty liver disease who are at increased risk of significant hepatic fibrosis: a cross-sectional study**
Mettananda KCD, Egodage T, Dantanarayana C, Solangarachchi MB, Fernando R, Ranaweera L, Siriwardhena S, Ranawaka CK, Kottahachchi D, Pathmeswaran A, Dassanayake AS, de Silva HJ

OP024 **Socio-demographic, anthropometric and biochemical determinants of dialysis adequacy among patients undergoing haemodialysis in selected government hospitals in Sri Lanka**
Lasanthika TLC, Wanigasuriya JKP, Hettiaratchi UPK, Amarasekara AATD, Goonewardena CSE

OP025 **Vaginal Delivery Vs Caesarean Section: Preference and its influencing factors among pregnant mothers in Urban Batticaloa, Sri Lanka**
Nushrath AH, Fernando WIS, Fernando HIA, Kirushayini K, Lohitharajah J

OP026 **Chemical composition of slaked lime used with betel quid in different districts in Sri Lanka : Presence of carcinogenic chemical Rhodamine B in samples collected from Jaffna district**
Priyanath SAH, Edirisinghe EAST, Weerasekera MM, Jayeweera PM, Yasawardene SG

Free Paper Session 5

OP027 **Health benefits of vernonia cinerea (l.) less (Monarakudummbiya) and its chemical constituent analysis**
Abeywardena KK, Thammitiyagodage MG, Kumara WGSS, Munasinghe ATM, Arawwawala LDAM

OP028 **Should 'Drug Related Problems' remain unnoticed among patients with chronic kidney disease of uncertain aetiology?**
Wickramasinghe NDD, Lynch CB, Coombes J, Jayamanne SF, De Silva ST

OP029 **Reported tobacco industry interference during COVID-19 pandemic in South Asia**
Perera NCS, Horadagoda N, DineshKumar P, Perera KMN, Rajasuriya M

OP030 **Violence against doctors**
Singh S

OP031 **Risk factors for childhood asthma among children aged 5-10 years who attended a tertiary care paediatric hospital in Sri Lanka: a case control study**
Gamage PRK, De Silva LSD, Wijayalath WASS, Ediriweera RC

OP003 **Traffic Light Labelling System on Packaged Solid Food Products in Ragama Town Area; A policy evaluation study**
Rathnapriya KGRS, Rajapaksha RTD, Randil MKS, Rathnayake RMLM, Athauda LK, Rashmith MKS

OP011   **A modern approach to assess equity in health care access: observations from a primary care spatial analytical study in Anuradhapura district of Sri Lanka**
Abeyrathna P, Samaranayake S, Pushpakumara PHGJ, Weerasinghe M, Agampodi SB

Free Paper Session 6

OP032   **An in-depth exploration of the prevalence and correlates of feeding difficulties among children diagnosed with cerebral palsy- a single centre study**
Dalpatadu KCS, Ranasinghe G, Tudugala R, Dalpatadu SAC

OP033   **Is hyperkalaemia associated with the development of heart blocks in patients with acute yellow oleander poisoning?**
Eriyawa WMABW, Jayamanne SF, Lokunarangoda N, Francis GR, Sandakumari GVN, Jayawardane P

OP034   **Does Kandyan dance improve flexibility and lower limb strength? A case control study among Sri Lankan female university students**
De Silva LAAD, Seneviratne SN

OP035   **Cross-cultural adaptation, reliability and validity of the Sinhala version of Cumberland Ankle Instability Tool in Sri Lanka: An instrument for measuring functional ankle instability**
Jayalath LR, Senanayake NWWPGKS, Ranathunga RAMD, Pathirana CHH

OP036   **Epidemiology of asthma among children aged 13-14 years and control of asthma symptoms among children with severe asthma from Anuradhapura Municipal Council area, Sri Lanka**
Subhanee KKT, Thennakoon TMSL, Sivabalan PS, Sumanapla SDVK, Sulakkhana MS, Sriwardhana SJTC, Rajapakse RMSI

OP037   **Evaluation of excessive somnolence in drivers admitted following road traffic accidents to an accident service unit in a tertiary care centre**
Sarfraz MZM, Muhandiram U, Samaraweera OS, Jayasekara RT, Fernando EAC

OP038   **Indoor particulate matter levels in the classrooms of government schools located in Anuradhapura Municipal Council area, Sri Lanka: descriptive cross-sectional study**
Sulakkhana MS, Dissanayaka DMSD, Dissanayake MRS, Hordagoda IC, Arampath AMAS, Rajapakse RMSI

ABSTRACTS OF ORAL PRESENTATIONS

Free Paper Session 1

OP001
Cardiac autonomic functions in diabetes mellitus: a case-control study

Ekanayake EMNK[1], Dunuwila KBS[1], Dharmakeerthi WD[1], Dilshan BC[1], Fernando RSR[1], Gallage RD[1], Dissanayake WGDMJC[1], Dissanayake DMBD[1], Farween MAM[1], Dharmasena GTR[1], Fernando LRU[1], Nanayakkara SDI[2]
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Introduction
Cardiac autonomic neuropathy is a life-threatening complication of long-standing type II diabetes mellitus (T2DM). Non-invasive cardiac autonomic function tests (CAFTs) are reliable indicators that quantify cardiovascular autonomic dysfunction.

Objectives
To evaluate the effect of long-standing T2DM, diabetic duration and gender on CAFT results with respect to an age-matched control group.

Methods
A case-control study was done by measuring cardiovascular autonomic function in 72 T2DM patients and 34 healthy individuals between 25-70 years. CAFTs (deep breathing test, isometric handgrip test, head tilt-up test, and Valsalva manoeuvre) were performed in both groups using Power Lab 26T data acquisition system and Lab Chart 8 software. The means and standard deviations were calculated for each parameter viz. postural index, delta heart rate, expiration to inspiration ratio, Valsalva ratio, and maximum diastolic blood pressure difference. Overall CAFT results were analyzed and a diagnosis of nil, early, definite or severe cardiac autonomic neuropathy (CAN) was given to subjects of both groups.

Results
One, 18, 20 and 33 cases had severe, definite, early and no CAN respectively while only one control subject was diagnosed with early CAN. Differences of CAFT results observed were statistically highly significant between the patient and the control groups ($f = 25.9$, $p < 0.0001$). There was no gender difference in CAN results within the patient group ($t = 1.013$, $p = 0.3685$) and also no significant difference in the average diabetic duration of patients with CAN and without CAN ($t = 0.9023$, $p = 0.37$).

Conclusion
The diabetic patients had a significantly higher incidence of CAN compared to age-matched healthy controls.

Key words: *cardiac autonomic neuropathy, diabetes mellitus*

OP004

Epidemiology of malaria infections in the phase of prevention of re-estsablishment of the disease in Sri Lanka

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Introduction
Sri Lanka is in the phase of prevention of the re-establishment of malaria. With the exception of one introduced case of malaria in 2018 and a transfusion-induced case of malaria reported in 2021, all malaria cases diagnosed in the country have been acquired overseas.

Objectives
The objective of this study is to describe the epidemiology of imported malaria cases in Sri Lanka.

Methods
Information regarding malaria cases detected across the country was recorded between 2016-2022. Each case was reviewed and validated by a group of independent experts of the Case Review Committee of the Anti-Malaria Campaign (AMC), following which they are entered to the National Case Registry.

Results
292 imported malaria infections were diagnosed during this period, a majority (91.8%) being in males. The mean age of patients was 38 .0 years (SD=12.1), with only two cases diagnosed in persons below 15 years. The infections were acquired from 45 countries. The highest number was acquired in Africa (67%), followed by Asia (n=93;31.8 %) of which 78 cases (26.7%) were from India. The majority of cases were diagnosed in the Western Province (58.9 %) of Sri Lanka, a former malaria non-endemic area.

Conclusion
Even though Sri Lanka is malaria-free, imported malaria continues to be reported in the country posing a risk of re-establishing malaria. Continuous vigilance is required to prevent the re-establishment of the disease until global eradication is reached, or at least malaria is eliminated from the South East Asian region.

Key words: *Malaria, Epidemiology, Sri Lanka, Prevention of re-establishment phase*

OP005

Malaria infections acquired by personnel of the United Nations peace keeping missions: a challenge to the prevention of reestablishment of malaria programme in Sri Lanka

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Introduction
Key strategies are in place to prevent the importation of malaria into Sri Lanka through high-risk populations who may acquire the disease while overseas.

Objectives
To highlight the challenges faced in spite of the preventative measures taken by the Anti-Malaria Campaign (AMC) to minimize personnel proceeding on United Nations (UN) peacekeeping missions to malaria-endemic countries from acquiring the disease.

Methods
53 individuals from the Sri Lankan Army proceeded to South Sudan in December 2021. Prior to departure, they were issued malaria chemoprophylaxis for the entire duration of their stay with advice on mosquito-bite preventive measures and the need to seek an early diagnosis for malaria if they develop a fever. Special training was included for medical staff on the management of malaria and drugs issued for treatment. Long-lasting impregnated nets (LLINS) were also issued. Following their return in February 2023, they were screened for malaria by proactive case detection at the International Airport. As per AMC protocol, the troupes are followed up at regular intervals, up to one year.

Results
Two individuals, both asymptomatic, tested positive for Plasmodium falciparum on arrival. They were admitted to the hospital and treated with antimalarials. On follow up, one month later another individual tested positive for P. falciparum. All patients made a full recovery.

Conclusion
In spite of stringent preventive measures in place, imported malaria continues to be reported amongst high-risk groups. The AMC is vigilant of this fact and has thus implemented sustained preventive measures such as long-term follow-up of high-risk groups.

Key words: *Malaria, Sri Lanka, Prevention of re-establishment, United Nations peace keeping missions*

OP006
Serial mapping of leprosy cases in Polonnaruwa district to identify hot spots

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Introduction
In Sri Lanka, leprosy is a neglected tropical disease. Sri Lanka was recognized to have eliminated leprosy by the World Health Organization in 1995. Nevertheless, about 2000 new leprosy cases have been reported in Sri Lanka each year. Polonnaruwa District represents 3.5 % of the leprosy burden in Sri Lanka. Early diagnosis and treatment are crucial to preventing permanent disabilities due to leprosy.

Objectives
To identify Leprosy Hot Spots in Polonnaruwa District by Serial Mapping.

Methods
An Excel file of GPS coordinates of patients reported from 2018 – 2022 was obtained and converted to CSV format to create a location shape file. The shape file was converted to KML file format and uploaded in the Google Mymaps platform. The Grama Niladhari Divisions of Polonnaruwa District shape file was also converted into KML file format and uploaded into same Google Mymaps platform to visualize both layers in the same map.

Results
The majority (80%)of cases were reported in Hingurakgoda, Medirigiriya, Thamankaduwa nad Dimbulagala Divisional Secretariat Divisions. In addition, hotspots were identified where serial cases were reported in consecutive years within the buffer zones. But appearance of cases within the same year may be due to contact tracing of index cases.

Conclusion
Serial spatial mapping helped to identify emerging clusters of leprosy enabling implementation of public health programmes in targeted areas than implementing them throughout the district in an equal manner.

Key words: *Leprosy, GIS Mapping, Leprosy Polonnaruwa*

OP007

Maternal satisfaction and knowledge of Early Childhood Development (ECD) related public health services

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Introduction
A good start in life gives rise to better outcomes as adults, hence the provision of quality health care helps children to reach maximum development potential.

Objectives
To determine the level of satisfaction and knowledge on ECD-related public health services, screening, and psychosocial stimulation among mothers in the Medical Officer of Health area Damana.

Methods
Mothers of children attending polyclinics in the Damana MOH area were recruited through a consecutive sampling method to conduct a descriptive cross-sectional study. A structured and pre-tested interviewer-administered questionnaire was used.

Results
Satisfaction with ECD services was reported by 98.4% (95%CI[96.0-99.0]; n=306) mothers. A good level of knowledge was reported by the majority (78.5%; 95%CI[74.0-83.0]; n=244) of mothers on child development milestones. Only 56.3% (95%CI[51.0-62.0]; n=175) mothers had a good knowledge level on psychosocial stimulations (CI=0.51-0.62). However, a poor level of knowledge on child developmental screening was noted among 87.1% (95%CI[83.0-90.0]; n=271) mothers. In addition, 58.8% (95%CI[53.0-64.0]; n=183) of mothers reported a poor knowledge level of available child developmental services in the area. A good level of knowledge in psychosocial stimulation has shown a significant association with mothers being educated beyond O/L (X2(1, N=311) =5.69,p =0.017). Working mothers had a significant association with a good level of knowledge on psychosocial stimulation (χ2(1, N=311)=4.62,p=0.03).

Conclusion
Lack of maternal knowledge in available ECD services needed to be addressed to enhance the quality of care at the field level.

Key words: *Early Childhood Development, developmental screening, psychosocial stimulation, maternal knowledge and satisfaction*

OP008
Factors Associated with Alcohol Consumption among Adult Males in Colombo

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Introduction
Alcohol consumption is linked to a variety of diseases and socioeconomic consequences. There is a rising trend in the overall per capita consumption and associated economic and disease burden in South-East Asian countries, including Sri Lanka.

Objectives
To describe the factors associated with alcohol consumption among adult males in the Colombo District

Methods
A community-based analytical cross-sectional study was conducted among 1160 adult males in the Colombo district, selected using multi-stage cluster sampling to represent all 13 Divisional Secretary areas in the district. Data were collected by pre-intern medical officers, using a pre-tested interviewer-administered questionnaire. The PRECEDE-PROCEED model was adopted to identify predisposing, enabling and reinforcing factors associated with alcohol consumption, and the factors associated with alcohol consumption were determined by a multivariate analysis using logistic regression.

Results
Non-modifiable socio-demographic factors found to be associated with ever drinking were, being Sinhalese (AOR=11.27; 95% CI= 4.31–29.37), being currently married (AOR=3.97; 95% CI= 2.61-6.04) and being less than 45 years (AOR=0.30; 95% CI= 0.19-0.50). Modifiable factors associated with ever drinking were being a current smoker (AOR=2.97; 95% CI= 1.93–4.56), having unfavourable attitudes on alcohol consumption (AOR=5.14; 95% CI= 3.51–7.54) and having unsatisfactory knowledge on alcohol consumption (AOR=1.54; 95% CI= 1.11-2.16), family members consuming alcohol in front of the participant when young (AOR=1.71; 95% CI= 1.05-2.77 and being invited for alcohol parties when young (AOR=0.47; 95% CI= 0.28-0.79).

Conclusion
Modifiable personal, childhood, family and peer-related factors should be considered in designing future prevention programmes and developing and reforming policies.

Key words: *alcohol, PRECEDE-PROCEED, Associated factors*

OP009

Positive parental history of diabetes is associated with early diagnosis, better self-reported dietary compliance and glycemic control among patients with type 2 diabetes

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Introduction
A family history of diabetes is an established risk factor for type 2 diabetes (T2DM).

Objectives
We aimed to investigate the association between the positive parental history of T2DM with the age at diagnosis, self-reported dietary compliance and glycemic control in a cohort of patients with T2DM.

Methods
A cross-sectional study was carried out among 500 T2DM patients attending a diabetes clinic in Galle. An interviewer-administered questionnaire was used to collect the data on a known history of T2DM among parents, age at the diagnosis of T2DM, and self-reported dietary compliance measured using a scale of 0-10. The last glycosylated hemoglobin (HbA1c) value was taken as the measure of long-term glycaemic control.

Results
Out of 500 patients, 51.2% had a parental history of T2DM (maternal 31%, paternal 12%, both parents 8%). The age at diagnosis of T2DM among patients with a family history was 46 (11) years compared to 52(10) years in the group with no parental history (p<0.001). Patients with positive family history showed better self-reported dietary compliance scores (p<0.001). Multiple logistic regression analysis revealed that patients with positive parental history had significantly higher odds of having lower HbA1c (p=0.003, OR=0.748).

Conclusion
In T2DM patients with positive parental history, the disease tended to be diagnosed earlier. This could be due to them being more concerned about the possibility of inheriting diabetes, leading to earlier screening. Due to positive family history, they may be more aware of disease complications, resulting in better dietary compliance and glycaemic control.

Key words: *T2DM, family history, diagnosis*

OP010

Caregiver burden and quality of life among family caregivers of advanced cancer patients attending palliative care clinic at National Cancer Institute (NCI), Maharagama – Sri Lanka

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Introduction
Caregivers of advanced cancer patients under palliation (ACPP) face challenges, which lead to caregiver burden (CB) and a decline in quality of life (QOL).

Objectives
This study was conducted to determine CB and QOL among family caregivers (FC) of ACPP attending the palliative care clinic of NCI.

Methods
A cross-sectional descriptive study was conducted with 266 FCs. Assessment of CB was done using the Zarith caregiver burden interview (ZBI) and the impact on the QOL with the WHO quality of life shortened version WHOQOL-BREF. WHO BREF interpretation and scoring tool used to interpret the score, each domain interpreted as a score from 100. Data analysis done using SPSS version 20. Ethical clearance obtained from ERC-PGIM. Relationship between the CB and QOL and factors associated with CB were analyzed using multiple regression analyses.

Results
Majority of FCs was female (66.9%), mean caregiver age was 46.86 years. Mean ZBI score was 25.7(SD-9.8). The majority of caregivers reported CB. (53.8%)
Mean scores of the physical, psychological, social and environmental domains in the QOL were 74.8%, 63.53%, 56.67% and 62.67% respectively. The mean score of the total QOL was 64.43 (SD-11.25).
Increasing CB was significantly associated with reduced QOL in all domains. (p<0.002) Reduced functional status of the patient (p= 0.024) increased time spent caregiving (p=0.015) significantly increase the CB while receiving additional help (p= 0.006) and religiousness (p= 0.013) reduced CB.

Conclusion
The majority of FCs reported CB. All domains of QOL of the FCs were affected and were associated with CB.
Understanding the factors associated with CB will help in improving the QOL of caregivers.

Key words: *caregiver burden, advanced cancer, palliative care, caregiver quality of life*

OP012

Is splenic stiffness measurement(SSM) better than Baveno VII criteria to predict oesophageal and cardio- fundal varices in patients with compensated advanced liver cell disease (cACLD)?

de Silva AP[1], Niriella MA[1], Nishad AAN[2], <u>Samarawickrama VT[3]</u>, Jayasundara H[3], Ranawaka CK[4], de Silva ST[1], Withanage M[1], Ediriweera D[1], de Silva HJ[1]
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Introduction
Liver and splenic stiffness measurements (LSM and SSM) using transient elastography (TE) are being increasingly used as a screening tool to predict varices.

Objectives
We aimed to test the utility of Baveno-VII criteria (LSM>25kPa, LSM>20kPa with platelet count <130,000 and LSM>15kPa with platelet count <110,000) and SSM to predict oesophageal and cardio-fundal varices in a cohort of Sri Lankan patients with aALCD.

Methods
Consecutive patients with newly diagnosed Child's class A cALCD (non-viral, BMI<30) were recruited prospectively. They underwent upper gastrointestinal endoscopy by an endoscopist followed by a Fibroscan by an operator who is unaware of endoscopy findings using ECHOSENS-Fibroscan-502 to measure LSM and SSM. Validity measurements of three Baveno-VII criteria and SSM values to predict oesophageal and cardio-fundal varices were calculated.

Results
One hundred and seventy-four individuals were recruited [Mean (95%CI) age 61.4 (59.7-62.8) years, 110 males], and 106 had varices. Our results indicate that the three Baveno VII criteria had sensitivities of 61%, 63% and 42%, and specificities of 79%, 77% and 87%. SSM>30kPa alone or in combination with LSM>15kPa had sensitivity of 81&75%, specificity of 72&83%, PPV of 82&87%, NPV of 71&67% and accuracy of 78&78% consecutively to predict oesophageal and cardio-fundal varices.

Conclusion
Baveno VII criteria had low sensitivity but high specificity to predict oesophageal and cardio-fundal varices. SSM>30kPa alone or in combination with LSM>15kPa seemed to predict oesophageal and cardio-fundal varices better.

Key words: *Cirrhosis, varices, liver stiffness, splenic stiffness*

OP013

Cultural adaptation and validation of the Sinhala version of the International Index of Erectile Function (IIEF)

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Introduction
Erectile dysfunction (ED) is the inability to initiate and have a persistent erection firm enough to have satisfying sexual intercourse. Advanced age, diabetes, cardiac disease, and hypertension are associations. Due to embarrassment and poor understanding of the condition, patients tend to hide these sexual issues from the doctors and patients continue to suffer in silence. The 15-item IIEF is used globally to assess ED in the clinical as well as community setting.

Objectives
To culturally adapt and validate the Sinhala version of IIEF (S-IIEF).

Methods
The IIFE was translated from English using the standard forward-backward process. After verifying the content validity, unambiguity and clarity of items in a focused group discussion, and a pilot study, the pre-final version was tested among 273 volunteers. Data were analysed for internal consistency, item-total correlations and Varimax rotation with Kaiser normalization.

Results
The mean(SD) age of subjects was 63.2 (11.44) years. The total IIFE score ranged from 5-71 (maximum 75). The overall Cronbach's alpha was 0.979 while item-total correlations varied from 0.635-0.987. Total IIFE score showed inverse correlations with advanced age, ischaemic heart disease, diabetes mellitus, hypertension and peripheral vascular disease ($p<0.05$). Kaiser-Meyer-Olkein value of 0.931 (P=<0.001) for Bartlett's test indicated adequate sampling and non-linearity of factors. The scree plot showed a 2-factor structure explaining 89.6% variation. The erectile function, orgasmic function, sexual desire and intercourse satisfaction are loaded together while overall satisfaction is grouped separately.

Conclusion
The S-IIFE is a reliable and valid tool to assess ED in the Sinhala language.

Key words: *Erectile Dysfunction, Impotence, Sexual Dysfunction*

OP014

A study on genetic variants associated with Sarcoidosis in the Sri Lankan population

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Introduction
Sarcoidosis is a granulomatous disorder that affects multiple organs, primarily the lungs and the skin. Previous research has identified that environmental and genetic factors are highly associated with disease prevalence. HLA and non-HLA gene polymorphisms have been linked to the onset of this disease and are significant markers for sarcoidosis susceptibility. BTNL2 and HLA-DQB1 are the most commonly associated genes with the Asian population.

Objectives
To determine the genetic variants associated with a cohort of sarcoidosis patients in the Sri Lankan population.

Methods
A cohort of 15 clinically confirmed sarcoidosis patients was selected and DNA was extracted. The primers were designed to perform T- ARMS polymerase chain reaction using Bioinformatics tools. The PCR protocol was optimized and validated by Sanger sequencing.

Results
Granuloma formations were identified in 93.3% and the lungs were the highest affected organ, followed by the eyes. All patients had the homozygous for the ancestral allele for the rs1049130 and about 20 % had the heterozygous mutant for the rs2076530 variant who presented with symptoms affecting their eyes and granulomas in the lungs. Sanger Sequencing results further validated the presence of heterozygous mutant allele rs2076530.

Conclusion
As genetic research regarding Sarcoidosis has not been previously conducted in Sri Lanka, this study is an important step toward further understanding the genetic variants in our population. This study has developed a cost-effective assay for the detection of variants rs1049130 and rs2076530 associated with Sarcoidosis. A replication of the study with a larger population is essential to develop biomarkers for early detection of the disease.

Key words: *Sarcoidosis, Granulomatous disorder, BTNL2, HLA-DQB1, Genetic variations*

OP015

Assessing reversibility of liver fibrosis in patients with transfusion-dependent beta thalassaemia following intensive chelation

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Introduction
Transfusion-related iron overload is a leading cause of hepatic fibrosis in transfusion-dependent thalassaemia (TDT).

Objectives
This study aimed to evaluate the reversibility of liver fibrosis with intensive chelation therapy in TDT.

Methods
Forty-five patients were included. Serum ferritin, hepatic fibrosis & steatosis (assessed by Transient Elastography), and liver iron concentration/LIC (estimated by FerriScan) were recorded at recruitment and after 2 ½ years of intensive chelation. Compliance for iron chelators was monitored and recorded as good (gc), moderate compliance (mc), and poor (pc) compliance based on the number of days the iron chelators were used.

Results
22/45 (49%) were males [mean age (SD)-19 (4.78) years]. There were 23 (51%), 12 (27%), and 10 (22%) patients with gc, mc, and pc with iron chelators, respectively. The LIC decreased in 36 (80%) patients. The median LIC reduction after 2 ½ years was as follows: gc group-13.5 to 5.1 mg Fe/g dw (P=0.0002); mc group-25.5 to 17.75 mg Fe/g dw (P=0.001). In the pc group, the LIC increased by 10.4 mg Fe/g dw (P =0.058). Liver fibrosis declined in 23 (51%) patients. The liver stiffness at recruitment and after 2 ½ years was 7.6 and 7.1 kPa (P=0.08) in the gc group. In both mc and pc groups, liver fibrosis increased on follow-up [significantly worsened in the pc group (P=0.04)].

Conclusion
The reduction of LIC in TDT was related to compliance with chelation therapy; substantial reductions were achieved in those with gc and mc. However, only those with gc managed to arrest the fibrosis progression.

Key words: *Liver fibrosis, Liver iron concentration, LIC, Transfusion dependent beta thalassaemia, Drug compliance*

OP016
An analysis of health expenditure in Sri Lanka over the past 20 years

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Introduction
Sri Lanka, having experienced three decades of war and an unprecedented economic crisis, has introduced standard health policies and goals with a tight health budget.

Objectives
To analyze the variation of total annual health expenditure (TAHE) with different parameters reflecting health standards over a period of 20 years.

Methods
Data obtained from the Ministry of Health of Sri Lanka were analyzed in a time frame from 2000 to 2019. The variation of TAHE with the gross domestic product (GDP), maternal mortality ratio (MMR) & infant mortality rate (IMR), Human Development Index (HDI), budget allocation for health, and per capita income & health expenditure of the Sri Lankan populace was plotted.

Results
The GDP was found to have increased from 16.3 billion USD in 2000 to 89 billion USD in 2019 whereas the TAHE as a share of GDP remained virtually the same: 4.2% in 2000 to 3.9% in 2019 with marginal fluctuations. The population over this period grew by 3.02 million while the per capita health expenditure rose from 44 USD to 161 USD. Population growth had a parallel escalation in comparison with TAHE while per capita income had a notable increment. A significantly higher budget was allocated for health in 2019 compared to that in 2000, yet the TAHE did not record a proportionate rise. However, the HDI rose with the TAHE while both IMR and MMR decreased with a commensurate increment pattern in TAHE.

Conclusion
Even though there has not been a substantial increase in the health budget, Sri Lanka has been successful in maintaining the major health indices at the required standards.

Key words: *health expenditure, Sri Lanka, economy*

OP017

Impact of the present economic crisis on health-seeking behaviour in the general public of Sri Lanka: A comparative study between Western Province and Uva Province

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Introduction
The economic crisis (EC) Sri Lanka facing, will cause serious effects on access to medical care. Planning health care services should be based on the changes in health-seeking behaviour of the general public.

Objectives
This study aimed to evaluate the changes in health-seeking behaviour (HSB) during the EC.

Methods
A descriptive comparative study was conducted for adults in the Western and Uva provinces during November and December 2022 using a telephone-based interview. Generalized estimating equations model was fitted to assess the changes in each province over the economic crisis (first quarter 2022) with before the economic crisis (first quarter 2018)

Results
Data from 1946 participants were analysed (mean age=48.4±13.8years) to assess HSB in both provinces. A total of 451(23.2%) participants stated that their HSB was changed due to EC. These changes were highlighted in Uva than in the Western province (27.6% vs 18.9%, $p<0.001$). Generally, the approach to private health care declined ($p<0.001$) during the EC by 0.19 times than before EC. This reduction was 0.6 times in the Uva province. However, approaching government facilities was not significantly increased. Seeking Ayurvedic medical care also increased significantly with the EC (before 21.0%; during 28.1%; $p<0.001$). The main reasons for changing the HSB were the increased cost of Western medicine (71.5% in Western;73.9% in Uva) and the inflation of essential items compromising their health care expenses (47.35 in Western; 60.6% in Uva;$p<0.005$).

Conclusion
Due to the economic crisis, people in rural regions have significantly reduced the seeking of private health care for medical concerns.

Key words: *health seeking, government health care, private health care, economic crisis*

OP019

Genetic hybridization proved between cutaneous and visceral strains of Leishmania donovani within its natural vector Phlebotomus argentipes

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Introduction
Leishmaniasis is a neglected tropical disease caused by the protozoan parasites of the genus Leishmania. More than 20 species of this genus are known to cause disease in humans and other animals. Leishmania donovani species complex is known to have a vast diversity of clinical manifestations in humans but underlying mechanisms for such diversity are yet unknown.

Objectives
We investigated the ability of two distinct variants of L.donovani which are responsible for causing visceral and cutaneous forms of the disease, to undergo genetic exchange, inside its natural vector Phlebotomus argentipes sandfly species.

Methods
Clinical isolates of L.donovani from a Sri Lankan patient with cutaneous leishmaniasis and an Indian patient with visceral leishmaniasis were used as parental strains. Parasites were genetically modified to have single drug-resistant markers along with a fluorescent tag and they were re-suspended in mice blood and fed to sandflies. After the 8th day of post-infection, sandflies were dissected and midgut products were placed in double drug media to selectively grow hybrids.

Results
Results revealed two hybrid progenies out of 72 independent mating events that occurred in individual sandflies with a nearly 3% efficiency of hybridization.

Conclusion
The intra-species genetic hybridization of L.donovani may explain the extensive phenotypic variations seen in patients in the Indian subcontinent. This provides the first evidence of the hybridization of L.donovani within its natural host Ph. argentipes and also confirms the existence of a sexual life cycle during its extracellular promastigote stages.

Key words: *genetic hybridization, cutaneous leishmaniasis, visceral leishmaniasis, Leishmania donovani*

OP020

Synergistic response of silver nanoparticles with carbon dots on staphylococcus aureus, pseudomonas aeruginosa and candida albicans

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Introduction
Alternatives must be eligible for the same incentives as that of the existing antibiotics to combat antimicrobial resistance. Silver nanoparticles (AgNPs) exhibit promising antimicrobial effects. Combining it with Carbon dots (C-dots) could allow achieving desired antimicrobial effect to a maximal level at a minimal dose of the agents individually.

Objectives
This study aimed to investigate the antimicrobial activity of the carbon-dot stabilized silver nanocomposite.

Methods
C-dots were synthesized through microwave irradiation. C-dot silver nanoparticles (Cd-AgNPs) were formed by adding carbon dots into 1mM of AgNO3. The antimicrobial activity of Cd-AgNPs was investigated via well-diffusion assay against Pseudomonas aeruginosa (ATCC 27853), Staphylococcus aureus (ATCC 25923) and Candida albicans (ATCC 10231). Minimum Inhibitory Concentration (MIC) was obtained using the broth microdilution method. All results were observed after incubating at 37°C for 24 hours using Citrate-AgNPs as control. Antimicrobial efficacy was calculated considering the standard antibiotic gave 100% inhibition. The fractional Inhibitory Concentration Index (FICI) was derived from MIC data using the formula, FICI = {MIC(Cd-AgNPs)/MIC(Cd) + MIC(Cd-AgNPs)/MIC(Citrate-AgNPs)}

Results
Antibacterial efficacy of Cd-AgNPs, Citrate-AgNPs and C-dots against Pseudomonas aeruginosa were 84.91%, 73.98%, and 71.22% while that of Staphylococcus aureus were 88.53%, 83.31%, and 83.31% respectively. Antifungal efficacy towards Candida albicans stood at 76.45%, 61.75%, and 53.59% for Cd-AgNPs, Citrate-AgNPs and C-dots correspondingly. The synergistic effect of C-dots and AgNPs was confirmed against all tested microorganisms (FICI<0.5).

Conclusion
Cd-AgNPs demonstrate higher antimicrobial efficacy with a synergistic response compared to Citrate-AgNPs. Thereby, alleviating issues related to infectious diseases.
Key words: *Carbon dot Stabilization, Carbon dot-silver Nanocomposite, Antimicrobial Activity*

OP021

Trends of HIV incidence over the last two decades between Japan and Sri Lanka: a comparative study

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Introduction

HIV is a global public health problem and comparative epidemiology of HIV may allow countries to adopt best practices.

Objectives

This study aimed to compare the trends of HIV incidence over the last two decades and its public health response between Japan and Sri Lanka.

Methods

Secondary data on the annual incidence of HIV from 2000 to 2021 in Japan and Sri Lanka were extracted from national health data sources from each country. A regression analysis of trends was done using Joinpoint Trend Analysis Software. A literature review on public health responses was conducted.

Results

In both Sri Lanka and Japan the HIV incidence in 2000 was 0.29 per 100,000 population. In Sri Lanka, it has increased up to 1.86 per 100,000 population by 2021 with a statistically significant Average Percent Change (APC) of 10 (95% CI=8.9 to 11.2, t=19.3, p=<0.001). In Japan, it was 0.50 in 2021 and the analysis of the trend revealed one joinpoint with two statistically significant segments; from 2000 to 2008 with an APC of 12.9 (95% CI=10.0 to 16.0, t=9.8, p=<0.001) and from 2009 to 2021 with an APC of -3.3 (95% CI= -4.5 to -2.0, t=19.3, p=<0.001). Japan preceded Sri Lanka in the initiation of surveillance, testing and anti-retroviral treatment. Despite comparable strategies, there were notable differences in their implementation between the countries.

Conclusion

Though both countries are low-prevalent for HIV, there is an alarming rise in incidence in Sri Lanka compared to Japan. Differences in the implementation of strategies should be further explored because of the adoption of best practices.

Key words: *HIV, Trend, Japan, Sri Lanka*

OP022
Leprosy case detection: an experience in Batticaloa district

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Introduction
Leprosy is an infectious disease caused by a bacillus, Mycobacterium leprae, which multiplies slowly. On average, the disease incubation period is 5 years but symptoms may occur within one year and can take as long as 20 years or even more. It causes permanent and progressive physical disability if untreated. In addition, the disease and its visible deformities in particular contribute to intense social stigma and social discrimination. Early identification is important to combat the above.

Objectives
To describe the mode of case detection in the year 2022.

Methods
This is a descriptive analysis using secondary data extracted from the district leprosy register, from January to December 2022, over the period of one year. Data were analyzed using SPSS 25.

Results
Out of total of 163 confirmed cases, males 53% (n=86) and females 47% (n=77). The majority 80% (n=130) were above 15yrs of age while child cases 15yrs and below were 20% (n=33). Most 94% (n= 153) were detected at an early stage and only 6% (n=10) were identified with deformities. The majority 71% (n=115) of the cases were detected by active case detection. Mode of detection, self-referral to government skin clinic 23.3% (n =38), self-referral to private channelling 6.1% (n=10), by range PHI 5.5% (n =09), by ALC PHI 27.6% (n=45), by ring survey 14.7% (n=24), by house-to-house survey 9.8% (n=16), and by special school medical inspection 13% (n=21). Out of 33 total child cases, 21 (64%) were detected from schools.

Conclusion
Active leprosy case detection is the commonest form of identification in the Batticaloa district. Child cases were detected mostly in schools.

Key words: *Leprosy, Batticaloa, Detection*

OP023

Identification of type 2 diabetes patients with non-alcoholic fatty liver disease who are at increased risk of significant hepatic fibrosis: a cross-sectional study

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Introduction
Annual screening of patients with diabetes for fatty liver, and identifying those with significant hepatic fibrosis using the FIB-4 score and vibration-controlled transient elastography (VCTE) has been recommended to detect patients who may progress to advanced hepatic fibrosis/cirrhosis. However, VCTE is not freely available in resource-limited settings.

Objectives
To identify clinical and biochemical predictors of significant liver fibrosis in diabetics with fatty liver.

Methods
We conducted a cross-sectional study among all consenting adults with T2DM and non-alcoholic fatty liver disease (NAFLD) attending the Colombo North Teaching Hospital, Ragama, Sri Lanka from November 2021 to November 2022. FIB-4 scores were calculated and patients with a score ≥1.3 underwent VCTE. Risk associations for liver fibrosis were identified by comparing patients with significant fibrosis (LSM ≥8 kPa) with those without significant fibrosis (FIB-4<1.3).

Results
A total of 363 persons were investigated. Of these, 243 had a score of FIB-4 <1.3. Of the 120 with a FIB-4 ≥1.3, 76 had LSM ≥8 kPa. Significant fibrosis was individually associated with age (OR 1.01, p<0.0001), duration of diabetes (OR 1.02, p=0.006), family history of liver disease (OR 1.42, p=0.035), waist (OR 1.04, p=0.035), and FIB-4 (OR 2.08, p<0.0001). However, on adjusted analysis, significant fibrosis was only associated with a family history of liver disease (OR 2.69, p=0.044) and FIB-4 (OR 1.43, p<0.001).

Conclusion
In patients with T2DM and fatty liver, advancing age, increased duration of diabetes, a family history of liver disease, waist circumference and a high FIB-4 score increase the risk of significant hepatic fibrosis. Targeted interventions in this group may help prevent progression to advanced hepatic fibrosis/cirrhosis.

Key words: *Nonalcoholic Fatty liver disease, NAFLD, Diabetes mellitus, significant liver fibrosis, vibration controlled transient elastography*

OP024

Socio-demographic, anthropometric and biochemical determinants of dialysis adequacy among patients undergoing haemodialysis in selected government hospitals in Sri Lanka

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Introduction
Dialysis adequacy is an indicator of survival of the patients undergoing haemodialysis.

Objectives
Since the dialysis adequacy-related evidence is limited, this study was conducted to determine socio-demographic, anthropometric and biochemical determinants of dialysis adequacy among patients receiving haemodialysis in selected government hospitals in Colombo District, Sri Lanka.

Methods
A descriptive cross-sectional study was conducted among a total of 217 consecutive patients undergoing haemodialysis. Reliable measures were used to obtain relevant anthropometric, biochemical and socio-demographic parameters. Adequacy of dialysis was assessed with Single pool Kt/V (sPK/V) using Daugirdas formula and Urea Reduction Ratio (URR). Binary logistic regression analysis (BLR) was performed with ten independent variables ($p<0.05$) to evaluate determinants of spKt/V.

Results
More than half of the participants reported adequate dialysis based on spKt/V (59.5%) and URR (50.2%). The mean (±SD) spKt/V and URR were 1.42 (0.66) and 64.73% (14.7) respectively. Females had adequate Kt/V and URR when compared to the males ($p<0.001$). Significant predictors of poor Kt/V in BLR model were high BMI (AOR=1.206; 95% CI-1.098, 1.323), high Post HD BUN (AOR=1.770; 95% CI-1.494, 2.097) and history of alcohol consumption (AOR=2.234; 95% CI-1.036, 4.816). In females, spKt/V and URR were positively associated with pre-HD serum creatinine (r=0.263; p=0.031) and albumin (r=0.268; p=0.026) respectively. In males, low mid-upper arm muscle circumference was significantly associated with high Kt/V (r=-0.221; p=0.009).

Conclusion

History of alcohol consumption was found to be the most significant predictor of poor Kt/V. Adequate dialysis was associated with lower anthropometric parameters and high pre-dialysis serum creatinine and albumin levels, indicating the necessity of maintaining adequate nutritional status among patients.

Key words: *haemodialysis, dialysis adequacy, associated factors*

OP025
Vaginal Delivery Vs Caesarean Section: Preference and its influencing factors among pregnant mothers in Urban Batticaloa, Sri Lanka

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Introduction
The rates of Cesarean sections (CS) have been increasing globally, but there has been no associated improvement in maternal and perinatal mortality and morbidity. Maternal preference has mostly been cited as a non-medical factor contributing to the rise in cesarean sections. Sri Lanka is one of the countries that has exceeded the WHO's ideal limit of CS.

Objectives
Therefore, our aim was to study the preferences of pregnant mothers, the influencing factors, and the association between preferences and socio-demographic factors.

Methods
A descriptive cross-sectional study was conducted among 288 pregnant mothers who attended antenatal clinics in the Batticaloa MOH area from January to December 2022. Data was collected using a self-administered questionnaire. The collected data was entered and analyzed using SPSS 26.

Results
The majority 237 (82.3%) of the participants preferred vaginal delivery. Preference of the vaginal delivery was mainly influenced by faster recovery after delivery, the natural delivery process and benefits for breastfeeding whereas previous cesarean section, fear of pain during vaginal delivery and concern of health inadequate physiological tolerance were the factors that influenced preference for cesarean sections. Maternal age, family income, gravidity and the sector where the last delivery occurred showed significant association with maternal preference ($p < 0.05$).

Conclusion
As the maternal preference for CS is not that high, there can be other factors contributing to the higher number of cesarean sections in this region. Educating pregnant women/family on the indications, risks and benefits of CS is a promising strategy to avoid non-medical cesarean sections.

Key words: *maternal preference, vaginal delivery, cesarean section, Sri Lanka*

OP026

Chemical composition of slaked lime used with betel quid in different districts in Sri Lanka : Presence of carcinogenic chemical Rhodamine B in samples collected from Jaffna district

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Introduction
Betel chewing has been identified as one of the leading risk factors for Oral Cancer. The betel quid contains betel, slaked lime, tobacco and areca nut.

Objectives
To investigate the chemicals incorporated in slaked lime.

Methods
Forty-eight slaked lime samples (18 from Jaffna and 3 each from the other 10 districts) were tested for their chemical composition especially the presence of Rhodamine B. Samples were dissolved in distilled water and pink colour was extracted. The mixture was centrifuged and the supernatant was subjected to UV visible spectroscopy, fluorescence excitation and emission tests. A mixture of laboratory-grade calcium hydroxide with Rhodamine B was used as the reference.

Results
Out of the 18 samples collected from Jaffna District, 15 were positive for Rhodamine B (83.3%). Results of the UV visible spectroscopic test of the slaked lime extract and laboratory reference of the Rhodamine B spectrum were similar. Both test samples and the laboratory reference gave similar lambda max(λmax) peak at 554nm wavelength indicating the presence of Rhodamine B. Fluorescence excitation and emission test result for slaked lime extraction was also similar to the reference Rhodamine B sample. Concentrations of Rhodamine B in slaked lime ranged between 9.72-124.38µg/g (mean 45.84 ± 36.89).

Conclusion
Rhodamine B was detected on 83.3% of samples taken from the Jaffna district. None of the other samples was positive for Rhodamine B. Rhodamine B is a carcinogenic chemical which is officially prohibited to be used in the food industry. The Ministry of Health has been officially informed about the presence of Rhodamine B in slaked lime.

Key words: *Jaffna Slaked lime , Rhodamine B, Oral cancer*

OP027

Health benefits of vernonia cinerea (l.) less (Monarakudummbiya) and its chemical constituent analysis

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Introduction
According to folkloric medicine of Sri Lanka, tea prepared using dried leaf powder of Vernonia cinerea L. (S. Monarakudummbiya) can be used as a cholesterol-lowering agent. The other medicinal properties of this plant, such as anti-diabetic, anti-oxidant properties, etc. were already investigated.

Objectives
to investigate lipid-lowering properties and acute toxicities of tea prepared by V. cinerea using Wistar rats and the phytochemical analysis.

Methods
Three months old Wistar (20) rats were recruited for the study. Their baseline biochemical parameters such as serum total and HDL cholesterol, Triglycerides, creatinine, ALT, and AST levels were measured and rats were randomly divided into two groups. V. cinerea (2.5g) was added to a cup, poured 120 mL of boiling water, kept for 5 minutes, and filtered. The filtrate was given to Wistar rats for 28 days whilst the control group was given an equal volume of distilled water. After the end of 28 days, biochemical parameters together with body weight were re-calculated. Results were analyzed using the T-test.

Results
There was a significant increment of HDL cholesterol levels whilst Total cholesterol and Triglycerides remained unaffected. There was no significant increase in creatinine, ALT, and AST levels indicating no acute toxicities. Phenolic and flavonoid content in mg of GAE/g of extract in V. cinerea 28.62 ± 1.06 and 19.20 ± 2.7.

Conclusion
V. cinerea tea is a promising safe candidate for improving HDL cholesterol levels and is rich in antioxidants such as phenols and flavonoids.

Key words: *Vernonia Cinerea , Wistar rats, tea, HDL, acute toxicity*

OP028

Should 'Drug Related Problems' remain unnoticed among patients with chronic kidney disease of uncertain aetiology?

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Introduction
Chronic kidney disease of uncertain aetiology (CKDu) is a major public health concern in Sri Lanka. CKDu patients often consume 10-12 drugs per day, which can result in drug-related problems (DRPs). However, emerging economies such as Sri Lanka have few safeguards in place to detect and report DRPs.

Objectives
The objective of this study was to introduce clinic-based pharmacy services to detect, address and report DRPs that occurred in CKDu out-patients.

Methods
A randomized controlled clinical trial was conducted in pre-dialysis CKDu stages 4 and 5 patients at outpatient renal clinics in Teaching Hospital, Anuradhapura, Sri Lanka. DRPs were identified in both groups at baseline. The control group received usual clinic care while the intervention group received medication counseling by a clinic-based pharmacist. DRPs were identified in both groups after 12 months.

Results
At baseline, there were 123 and 126 patients in the control and intervention groups, respectively. 133 and 147 DRPs were identified from 80 and 79 patients in the control and intervention groups, respectively. The median number of DRPs per patient was 1 (1-2) (p=0.458) for both groups. After 12 months, there were 101 and 98 patients in the control and intervention groups, respectively. 137 and 59 DRPs were identified from 57 and 33 patients in the control and intervention groups, respectively. The median number of DRPs per patient was 2 (1-3) and 1 (1-2) (p=0.029) in control and intervention groups, respectively.

Conclusion
A "clinic-based pharmacist" counselling is a beneficial additional service for identifying and addressing DRPs occurring in patients with CKDu.

Key words: *"Clinic-based pharmacist", medication counseling, out-patient*

OP029
Reported tobacco industry interference during COVID-19 pandemic in South Asia

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Introduction
Articles 13 and 5.3 of the Framework Convention on Tobacco Control (FCTC) recommend banning sponsorships and restricting Corporate Social Responsibility (CSR) activities of the tobacco industry (TI). It is known that TI uses catastrophic situations to promote its image through CSR activities.

Objectives
This study aimed to explore TI activities during the COVID-19 pandemic in South Asia from March 2020 to February 2022.

Methods
A mixed methods design was used. Investigative research techniques were used to gather data. Media reports, websites, industry reports and social media posts during the pandemic were analysed using content analysis methods.

Results
A total of 132 incidents were identified and 122 directly involved 10 tobacco companies. The highest were reported in India (80), Bangladesh (27) and Sri Lanka (18). The majority of incidents (73) were related to ITC Limited India.
Influencing media (41), promotion (31), CSR activities (donating money/medical equipment/food/ hygiene goods) (15), and partnering with governments (15) were the commonest incidents. Lobbying governments and officials, increasing accessibility to products, receiving awards, directors/ executive officers featuring in conferences, and sponsorships were other themes identified.
These received wide positive media coverage. Media highlighted the drop in revenue and later recovery of sales.
Online cigarette sales and home delivery services were initiated in Sri Lanka and Bangladesh. In Bhutan, the trade ban was lifted, and cigarettes were added to the essential goods list and sold in "state-owned duty-free" sales outlets.

Conclusion
TI used the pandemic to promote its image via CSR activities, sponsorships and partnering with governments violating FCTC and national laws.

Key words: *Framework Convention on Tobacco Control (FCTC), CSR Activities, Promoting image*

OP030
Violence against doctors

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Introduction
The recent increase in reports of violent incidents against healthcare workers is a disturbing trend. According to a World Health Organization (WHO) report, there were approximately 600 violent attacks on medical facilities in 19 countries between 2014 and 2015. Seventy-five per cent of doctors in India have experienced workplace violence, according to a research study by the Indian Medical Association.

Objectives
The current review explores the incidents of violence and explores the circumstances surrounding such incidents while elucidating the common factors that could precipitate such incidents.

Methods
Google database was searched in December 2022 using the keywords, "Violence against doctors in India in 2022". For the compilation of the study, a comprehensive search was conducted on popular newspapers viz., Times of India, Indian Express, Hindustan Times, Telegraph India, Medical Dialogue and Tribune. The incidents of violence limited to the year 2022 were screened for inclusion.

Results
Twenty-eight such incidents were included in the study. Characteristics around patients, their clinical condition, the healthcare facility, the provider, and the incident have been reported. Age, gender, and the patient's outcome—dead or alive—are some of the patient characteristics. Acute or chronic, trauma, and infection are some of the characteristics of a disease.

Conclusion
Our report brings focus on incidents of violence against healthcare professionals as a public health issue. While training in soft skills from an early stage is essential, our report highlights important common aspects of violent incidents.

Key words: *Assault, law enforcement, healthcare workers*

OP031

Risk factors for childhood asthma among children aged 5-10 years who attended a tertiary care paediatric hospital in Sri Lanka: a case control study

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Introduction
Childhood bronchial asthma is one of the most prevalent diseases among children in Sri Lanka with modifiable and non-modifiable risk factors.

Objectives
The aim of the study was to determine the risk factors of childhood bronchial asthma.

Methods
A case-control study was conducted among children aged 5-10 years attending a tertiary care pediatric hospital in Sri Lanka in the year 2019/20. Cases and controls were consultant-diagnosed bronchial asthmatics and non-asthmatic hospital attendees respectively with 230 individuals in each group. Data were analyzed with descriptive statistics and the associations were determined by multivariable analysis with logistic regression at p=0.05 level.

Results
The median ages of cases and controls were 7.1 years (IQR= 2.6 years) and 7.0 years (IQR=2.42 years) respectively. The sex ratio was similar in both groups (54.3%).
Multivariable analysis revealed that having bronchial asthma was positively associated with the introduction of formula milk during the first six months of life (OR=4.5, 95% CI-2.5-7.9,p<0.001), discontinuation of breastfeeding within the first six months of life (OR=46.9, 95% CI-5.6-393.3), having an asthmatic father (OR=6.5, 95%CI-1.5-28.9)/ asthmatic mother (OR=5.2,95%CI-1.3-19.9), family history (OR=1.8, 95%CI-1.1-3.2), having allergic rhinitis (OR=6.4,95%CI-3.5-11.8), having exposure to cigarette smoke (OR=2.1,95%CI-1.1-3.9) and negatively associated with being exclusively breastfed for the first six months of life (OR=0.2, 95%CI-0.1-0.4) and a total duration of breastfeeding for over 30 months (OR=0.3,95%CI-0.2-0.6) when it was controlled for predictor variables.

Conclusion
Feeding practices and prevention of exposure to cigarette smoke were revealed as modifiable factors associated with the development of childhood bronchial asthma.

Key words: *Childhood asthma, risk factors, protective factors*

OP003

Traffic Light Labelling System on Packaged Solid Food Products in Ragama Town Area: A policy evaluation study

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Introduction
The Traffic Light Labelling System (TLLS) for packaged solid and semi-solid foods was implemented in Sri Lanka in 2019 as a measure to reduce the Non-Communicable Disease burden related to nutrition in Sri Lanka.

Objectives
To describe the level of implementation of the TLLS in packaged solid food products and its awareness among the adult population in Ragama town.

Methods
A descriptive cross-sectional study was conducted under two arms as Study I and II.
Study I: Snacks and Confectionary Isles of four supermarkets were examined to observe all packaged food products that complied with the Food (Color coding for sugar, salt and fat) Regulations of 2019. A pre-tested checklist based on the TTLS legislature was used to assess the implementation level with a score from 0-10.
Study II described the awareness of TLLS among the adult population in public areas using an interviewer-administered questionnaire.

Results
Among 412 items assessed, 75%(n=311) had completely adhered to TTLS legislature while 10%(n=42) had completely violated it. The most violated regulation was inaccurate main logo size (n=67,16.26%)
Among 385 adults, majority (n=222,57.7% were not aware of the TLLS. The most considered factor when purchasing a food product was the expiry date (n=217,56.4%) and food purchase was mostly influenced by income (n=175,45.5%).

Conclusion
Although a high level of adherence to TLLS was seen among snacks and confectionary items, their nutritional labels were not a decisive factor for purchase. As buyer awareness regarding TLLS was poor, this study calls for increasing awareness and creating a culture of reading food labels during shopping.

Key words: *Policy, Nutrition, Food packaging*

OP011

A modern approach to assess equity in health care access: observations from a primary care spatial analytical study in Anuradhapura district of Sri Lanka

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Introduction
Ensuring healthcare equity is essential for achieving Universal Health Coverage. Modern technology provides solutions for assessing healthcare equity with spatial access.

Objectives
This study assessed the spatial accessibility of primary care facilities (PCF) in the Anuradhapura district (AD), Sri Lanka

Methods
This spatial analytical study in the AD included spatial maps and population data of 657 Grama Niladhari Divisions (GND), 403 geospatial locations of allopathic and Ayurveda PCFs, and 523 Primary Care Doctors (PCD). A geographic information system was analyzed spatial maps. The Spatial Accessibility Index (SAI) is the sum of the proportion of PCD to the catchment population of every PCF located in spatial distances of 5km (5SpD) and 10km (10SpD) from a particular GND.

Results
Average SAIs of 4.50×10^{-4} and 4.67×10^{-4} were reported for 5SpD and 10SpD from a GND. A statistically significant difference in mean SAIs was measured between urban and rural populations. The minimum national primary care coverage target of 1 PCD per 5000 population was achieved only in 70% of the population within 5SpD. Higher SAI was associated with proximity to main roads and main towns

Conclusion
Primary care accessibility in AD was affected by the population's geographic location and proximity to physical infrastructure (e.g. towns and main roads). Differences in primary care accessibility should be resolved by expanding adequate human and physical resources of health care to deserving populations.

Key words: *primary care, spatial access, healthcare equity, healthcare disparities*

OP032

An in-depth exploration of the prevalence and correlates of feeding difficulties among children diagnosed with cerebral palsy- a single centre study

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Introduction
Feeding requires significant neuromuscular coordination and integration of motor and sensory pathways. Intellectual disability, visual and hearing impairment, and seizures associated with Cerebral Palsy (CP) also increase feeding difficulties. Only a few published studies delineate feeding issues in children with CP and hardly any studies in Sri Lanka. Hence findings of this study on feeding difficulties among children with CP can help in improving overall health outcomes.

Objectives
To explore the prevalence, types, associations, and consequences of feeding difficulties in children with cerebral palsy followed up at Teaching Hospital Kurunegala

Methods
Analytical study of over six months at Teaching Hospital Kurunegala, where 226 children with CP were assessed by a speech therapist using the FEEDS TOOL. Assessments were under four main domains. Children were examined for GMFCS and their height and weight were measured.

Results
88.5% of children were found to have one or more positive findings related to feeding difficulty. 62.4% had problems in the Morphological and Functional Domains while 44.2% had impaired Reflexive Oral-Motor Skills but only 24.8% were detected to have Signs of Stress or Disorganization and 88.5% had at least one positive Other Clinical Sign. There was a significant association in total score with GMFCS and the number of limbs involved (P<0.05). The feeds tool mean score was notably high in GMFCS 5 and among quadriplegic CP. The mean score was significantly higher in undernourished (SAM+MAM) compared to normal and overweight children.

Conclusion
Detailed assessment of type of feeding difficulties in children with CP can help in implementing interventions needed to improve overall outcomes.

Key words: *cerebral palsy, feeding difficulties, nutrition*

OP033

Is hyperkalaemia associated with the development of heart blocks in patients with acute yellow oleander poisoning?

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Introduction
Yellow oleander (Thevetia peruviana) contains cardiac glycosides which result in arrhythmias, heart blocks and electrolyte imbalances.

Objectives
The objective of the study was to find whether the development of hyperkalaemia within the first 24 hours of admission predicts the development of heart blocks.

Methods
A prospective cohort study was carried out at Teaching Hospital Batticaloa, Sri Lanka, from 1st July 2022 to 28th February 2023 among patients admitted with acute yellow oleander poisoning. Patients were recruited if any of the following signs were present: bradycardia (<60bpm), systolic blood pressure <80mmHg, nausea, vomiting, abdominal pain, diarrhoea, xanthopsia, within 2 hours of admission. Serum potassium level was assessed at recruitment and 6 hourly, serial electrocardiograms were done at recruitment and 4 hourly, for 24 hours. The association between hyperkalemia (serum potassium >5.5mmol/L) and the development of heart blocks were calculated using the chi-squared test. Ethical Clearance was granted by the Ethics Review Committee of the Faculty of Medical Sciences, University of Sri Jayewardenepura.

Results
Among 120 consenting symptomatic patients recruited, 26.67%(n=32) patients developed hyperkalemia while 7.5%(n=9), 10.0%(n=12) and 3.33%(n=4) patients developed 1st, 2nd, and 3rd degree heart blocks respectively. Temporary cardiac pacing (TCP) was done in 9.16%(n=11) patients and 2.5%(n=3) died due to cardiac arrest. Hyperkalemia within 24 hours of admission was associated with the development of heart block (X2(1, N=120)=12.9689, p=0.0003).

Conclusion
Patients who developed hyperkalemia within 24 hours of admission following acute yellow oleander poisoning should be closely monitored for the development of heart blocks and managed at centres where facilities for TCP are available.
Key words: *Hyperkalemia, Heart-blocks, oleander*

OP034

Does Kandyan dance improve flexibility and lower limb strength? A case control study among Sri Lankan female university students

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Introduction
Flexibility and lower limb strength are important for physical fitness. Kandyan dance which evolved from the Kandy District of Sri Lanka's central region is unique to Sri Lanka. However, there is a lack of data on the physical health benefits of Kandyan dance.

Objectives
This study aimed to determine if Kandyan dance is associated with increased flexibility and lower limb strength in young adult females.

Methods
This case-control study involved 100 healthy university students (aged 21-23 years), including 50 females engaged in formal Kandyan dancing for >6 months, including >6 hours/week over the past 3 months from the Faculty of Dance and Drama, and 50 females not engaged in Kandyan dance over the past 5 years, from the Faculty of Science. Socio-demographic and physical/medical data were collected by a self-administered questionnaire. Flexibility was assessed by the sit-and-reach test (cm), measuring the most distant point reached with fingertips, with knees locked and soles flat against the sit-and-reach box. Lower limb strength was assessed by the wall-sit test (s), measuring the time each foot could be kept raised 5cms off the ground, with knees flexed at 90°. The tests were repeated for each participant, and the mean obtained. Means between groups were compared using independent sample t-tests.

Results
Compared to controls, dancers achieved longer time in the wall-sit-test (25.1 ± 11.4 vs 19.8 ± 10.0 s, p=0.016), and higher distance on the sit-and-reach-test (41.6 ± 5.9 vs 36.5 ± 9.3 cm, p=0.002).

Conclusion
Regular engagement with Kandyan dancing was associated with higher flexibility and greater lower limb strength among healthy young Sri-Lankan adult females.

Key words: *Kandyan dance, lower limb muscle strength, flexibility*

OP035

Cross-cultural adaptation, reliability and validity of the Sinhala version of Cumberland Ankle Instability Tool in Sri Lanka: An instrument for measuring functional ankle instability

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Introduction

Approximately 20-30% of ankle sprains develop chronic ankle instability which requires repeated measurement during treatment and rehabilitation. Many will have functional limitations and Cumberland Ankle Instability Tool (CAIT) is one of the commonly recommended questionnaires to measure functional ankle instability (FAI). However, the functions included in the questionnaire might vary based on the different cultures and countries.

Objectives

This study was conducted to validate the Sinhala version of the CAIT (CAIT-Sin) and evaluate its validity and reliability in native Sinhala speakers.

Methods

The CAIT was translated and cross-culturally adapted into Sinhala, using a forward-backward translation method. The CAIT-Sin, Karlsson score and Visual Analog Scale (VAS) were administered to 154 university students with and without ankle instabilities, in order to test internal consistency, test-retest reliability, criterion validity, floor and ceiling effect and discriminative ability of the CAIT-Sin. We also estimated a CAIT-Sin cut-off value in distinguishing individuals with and without FAI.

Results

The CAIT-Sin was with a high internal consistency (Cronbach's alpha=0.888) and excellent test-retest reliability (ICC2,1=0.95,95% CI:0.93-0.96). The CAIT-Sin exhibited strong and positive correlations with the Karlsson score ($r=0.832, p<0.001$) and VAS ($r=0.876, p<0.001$). No ceiling or floor effect was observed in individuals with FAI. The cutoff value in distinguishing individuals with and without FAI in the CAIT-Sin was ≤ 26.

Conclusion

The Sinhala version of the CAIT questionnaire is a valid reliable tool to measure FAI in individuals which can be adopted by researchers and therapists during assessment.

Key words: *Cumberland Ankle Instability Tool, Sinhala version, Ankle Instability*

OP036

Epidemiology of asthma among children aged 13-14 years and control of asthma symptoms among children with severe asthma from Anuradhapura Municipal Council area, Sri Lanka

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Introduction
Asthma is the most common chronic disease affecting children. Asthma epidemiology of adolescents varies significantly from that of children and adults.

Objectives
To assess the epidemiology of asthma and the control of asthma symptoms among 13-14-year-old children from the Anuradhapura Municipal Council area.

Methods
An analytical cross-sectional study was conducted in grade 8 classes of six government schools selected by multistage sampling method. Asthma epidemiology and control were assessed with the International Study of Asthma and Allergies in Childhood (ISAAC) Questionnaire and the Asthma Control Test, respectively.

Results
The study sample consisted of 528(51.3%) boys and 501(48.7%) girls. There were 826(80.3%) children aged 13 years and 203(19.7%) aged 14 years. The prevalence of asthma-ever, current asthma and physician-diagnosed asthma were 32.6% (n=335; 95%CI 29.7-35.5), 23.7% (n=244; 95%CI 21.1-26.4) and 19.0% (n=196; 95%CI 16.7-21.6), respectively. Severe asthma was reported in 10.8% (n=111; 95%CI 9.0-12.8) children with recurrent wheezing being the most common symptom (n=90; 8.7%, 95%CI 7.1-10.6). The independently-associating factors of severe asthma were eczema (OR 6.229; 95%CI 2.8–14.1), allergic rhinitis (OR 5.528; 95%CI 3.6–8.5), frequent consumption of curd (OR 1.792; 95%CI 0.9–3.4), sleeping on a cloth instead of a mattress (OR 22.02; 95%CI 3.3–146.7) and using sawdust for cooking (OR 14.6; 95%CI 1.8–117.4). Domestic dogs were a protective factor (OR 0.6; 95%CI 0.4-0.9). Poor asthma control was observed in 29.3% (n=29) of severe asthmatics.

Conclusion
One in ten children had severe asthma with more than 1 in 4 children with severe asthma having poor control.

Key words: *Asthma; Epidemiology; Adolescents*

OP037

Evaluation of excessive somnolence in drivers admitted following road traffic accidents to an accident service unit in a tertiary care centre

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Introduction
Road traffic accidents (RTA) are a leading cause of mortality and morbidity.

Objectives
This study explores the prevalence of excessive sleepiness among drivers admitted after RTAs and factors that are associated with excessive sleepiness.

Methods
This is an interviewer-based cross-sectional study of 200 drivers admitted to an accident service unit at a tertiary care centre over 4 months. The STOPBANG questionnaire to determine the risk for Obstructive Sleep Apnoea (OSA) and the Epworth sleepiness scale (ESS) were used. SPSS version 23 was used for statistical analysis.

Results
96.5% were males (n=193; commonest age group- 41-50 years. 81% were shift workers. 85.5% had grievous injuries. 63.5% s had BMI > 23kg/m2. 13.5% had ESS of >11 indicating excessive sleepiness in >1:10 drivers. 45% of drivers were at high risk for OSA. There was a significant association between BMI > 25 kg.m2 and excessive sleepiness (fisher exact chi-square of 32.0 and p <0.0001). 31.4% with a neck circumference >38.5cm had ESS>11 (chi-square of 20.4 and p <0.0001). 30% with a high risk of OSA had ESS>11 (fisher exact chi-square of 38.1 and p <0.0001).
There was no significant association between excessive sleepiness and commercial drivers (p=0.754) or working hours (p= 0.208) or age (p=0.922). 50% of commercial drivers were at risk of OSA, p=0.583)

Conclusion
This study highlights the impact of excessive sleepiness on RTAs and the importance of screening for sleep disorders. We recommend further large-scale studies and screening of all drivers for excessive somnolence; if treated, leads to the prevention of lost life, limb, and property.

Key words: *sleep apnoea, motor vehicle accidents, driving license*

OP038

Indoor particulate matter levels in the classrooms of government schools located in Anuradhapura Municipal Council area, Sri Lanka: descriptive cross-sectional study

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Introduction

Classroom indoor air quality, particularly particle matter (PM) levels, is critical in determining students' respiratory health. PM is categorized based on the aerodynamic diameter into coarse (PM10: diameter less than 10 μm), fine (PM2.5: diameter between 0.1-2.5 μm) and ultrafine (PM0.1: diameter less than 0.1 μm). Aerodynamic diameter determines the depth of penetration along the tracheobronchial tree.

Objectives

To assess the indoor PM levels in the classrooms of government schools of the Anuradhapura Municipal Council area

Methods

A descriptive cross-sectional study was conducted in the grade 8 classes of 6 schools selected by multistage sampling. The indoor PM levels were measured using a video particle counter (VPC300, EXTECHTM). The relative humidity, temperature, dew point, and physical conditions including ventilation in the classrooms were assessed. Fifteen 1-minute cycles of measurements were taken as recommended on three separate occasions.

Results

The study sample consisted of 32 classrooms of grade 8 in the selected schools. Regarding mean coarse PM, the recommended levels were exceeded. PM10 levels were higher in 26 classrooms (81.25%). The PM0.5 levels were higher in 28 classrooms (87.5%) and PM0.3 levels were in 30 classrooms (93.75%). The mean fine PM levels were higher than recommended in all 32 classrooms (100%). The overall mean fine particulate matter level was 3098602.8 (±145493.55). The PM5 levels were higher than the recommended levels in 30 classrooms (93.75%). The PM10 levels were higher than the recommended levels in 30 classrooms (93.75%).

Conclusion

Significantly higher indoor PM levels were found in all 32 classrooms.

Key words: *Respiratory disease, Indoor air pollution, Particulate matte*

LIST OF POSTER PRESENTATIONS

Poster Presentation Session 1

PP001 **Point of view on a digital health application in mitigating risk factors of non-communicable diseases; sharing of experience from a Singapore health cluster**
Illangasinghe DK

PP002 **Knowledge and attitudes regarding homosexuality and their associated factors among pre-clinical medical students at the Faculty of Medicine Peradeniya**
Uyangodage AS, Wanninayake WMTN, Warnasooriya DGH, Wasala WMBS, Weerakkodi KGDT, Weerakkody WABK, Weerasekara OWLK, Weerasinghe SMIP, Weerasinghe WMTM, Weerasinghe DPTM, Gurung S, Wangchuk K, Tshering K, Gunawardane DA

PP003 **Factors influencing the maternal choice of packaged snacks for 6-10 years old children: a cross-sectional study from MOH area Balangoda**
Gunawardhana DP, Talagala IA

PP004 **Epidemiology of allergic rhinitis among 13-14-year-old children from Anuradhapura Municipal Council area, Sri Lanka**
Siriwardhana SJTC, Sivabalan PS, Sumanapala SDVK, Sulakkhana MS, Subhanee KKT, Thennakoon TMSL, Rajapakse RMSI

PP005 **Proportion and associated factors of being at risk of cybersex addiction among adult internet users in Sri Lanka**
De Silva LSD, Kandasamy C, Abeygunathilaka DN, de Lanerolle ND, Kumarapeli KADDVL

PP006 **Clinical audit on notification of notifiable diseases in secondary care hospitals in the Batticaloa District**
Mayuran N, Sasikumar T, Dharshini K, Sasikumar S

PP007 **Delayed diagnosis of malaria: a challenge to the prevention of re-establishment of malaria in Sri Lanka**
Thenuwara N, Seneviratne S, Chulasiri MPPU, Ranaweera P, Mendis KN, Fernando SD

PP010 **Prevalence of digital eye strain, associated factors, awareness and utilization of preventive measures amongst GCE A/L students of Colombo District**
Dodangoda DDMB, Drieberg MA, Droston TAD

PP011 **The knowledge and practices of GCE Advanced Level students in Kandy city regarding antibiotics and antibiotic resistance**
Abeysinghe AABC, Abeywardena MU, Abeysinghe AAGH, Agalawatte AVDP, Abeygunawardena SDV, Amarakoon AMTND, Abeywardhana AMDT, Afkar AKM, Adikari AMID, Alwis PKDPS, Akeshwari GHGA, Liyanapathirana V

PP013   **The quality and associated factors in newborn screening for congenital hypothyroidism among postnatal health care providers in state hospitals of the Colombo District**
Silva DPRC, Thenuwara NVJ

PP014   **Trends of overweight and obesity in Sri Lanka among adults: A Scoping Review**
Nandasena S, Padeniya P, Ranasinghe P

PP015   **Impact of social marketing campaign in improving case detection of leprosy**
Ranaweera KDNP, Kahawita IP, Premarathne EMGTGVD, Alawathukotuwa AGCD, Boteju WGSR, Wijesekara D, Chandrasiri MKPD, Pathirana PM, Mallawarachchi HK, Gunasekara MCW

PP016   **Prediction of epidemic dynamics for omicron (BA.5) in Nepal context**
Das CL, Edirisuriya C, Shakya A, Acharya P, Sunny AK, Gelal K, Ghimire A, Sthapit D, Jayatilleke AU, Govindakarnavar A, Meehan M, McBryde E, Gocotano A, Pandav RS

PP017   **Non-communicable disease profile and associated factors among work from home based software engineers in Sri Lanka**
Tennakoon GMJ, Seneviwickrama KLMD

PP018   **Professional life stress & associated factors among work from home based software engineers in Sri Lanka**
Tennakoon GMJ, Seneviwickrama KLMD

PP019   **What causes violence among youth in Sri Lankan technical colleges? A participatory action research**
Rathnayake N, Abhayasinghe K, Silva JD, Guruge GND

PP020   **COVID19 vaccine acceptance and the factors associated with vaccine acceptance among older adults residing in a selected MOH area of Colombo Municipal Council**
Sivapirashanth C, Cader M

PP021   **Factors associated with quality of life among government primary school teachers in Gampaha District in new normal context (COVID 19)**
Rathnayake KASD, Chulasiri MPPU

PP022   **Relationship between mobile phone screen time and physical activity level among undergraduates in the University of Peradeniya**
Sivadarshani S, Nandasena HMRKG

PP023   **An overview of predatory journals of health-related disciplines and research publications by South Asian authors**
Kumaradasa PP, Hansanie SMN, Mannapperuma U

PP024   **Challenges, experiences and perceptions of mothers of 13-14 years old school children with poor asthma control from the Anuradhapura Municipal Council area, Sri Lanka**
Sivabalan PS, Subhanee KKT, Siriwardhana SJTC, Sumanapala SDVK, Sulakkhana MS, Thennakoon TMSL, Nuwangi H, Rajapakse RMSI

PP025   **Knowledge and its associated factors among patients admitted with Acute Coronary Syndrome to secondary care hospitals in Kalutara District**
Ranasinghe JMSD, Arnold SM, Gunawardene MDUB, Dhanasinghe CN

PP026   **Knowledge, attitude and practices of healthcare-seeking behaviour in leptospirosis among farmers in a Medical Officer of Health area in Sri Lanka**
Dhanasinghe CN, Ranasinghe JMSD, Ganepola GASN, Gamage D

PP027   **The knowledge, perceptions and practices of public health midwives with provision of post-natal care for women with GDM in selected Medical Officer of Health (MOH) areas in Gampaha district**
Halambarachchige LP

PP028   **Analysis of theoretical and strategic underpinnings of Facebook content used for COVID prevention in Sri Lanka**
Wanasinghe T, Athauda LK

PP029   **Knowledge and pattern of utilization of antenatal care services among primiparous women attending the antenatal clinics at Castle Street Hospital for Women**
Weerathunge MD, Welikala MDM, Weerakoon PGCP, Chandraratne NK

PP030   **Compliance to Antihypertensive Treatments among Hypertensive Patients Attending a Tertiary Care Hospital in Sri Lanka**
Amarasinghe TS, Kumara DMID, Ralapanawa DMPUK, Ariyawansha TA

PP031   **Prevalence, its work-related associated factors and barriers in minimizing digital eye strain among banking assistants in Colombo District**
Gunawardana DSKD, Jayewardene DM, Gunawardana MDUB

PP032   **Impact of present economic crisis on risk behaviour in Sri Lanka: A comparative study between Western Province and Uva Province**
Fernando DR, Nilaweera AI, Adikaranayake AMPR, Perera AN, Daksina TDT, Wijayatilaka NT, Nethmini ULT, Hettiarachchi EDH, Weerakoon KGSH, Jayalath WKDN, Sathushan T, Indrawansa S, Wijayaratne D, Katulanda P

PP033   **Assuring food security to prevent malnutrition in Sri Lanka**
Kohombage CG, Karunathilake IM, Aluthge H, Hewamalage AP, Amarasiri MMPL, Perera BJC

PP034   **A methodology for normalizing health data measured in different units for GIS analysis**
Fernando S, Kumarapeli V, De Alwis Seneviratne R

PP035   **Employment status and Quality of life of school pass-outs of Rajapaksha Central College, Weeraketiya, Sri Lanka**
Sanjeewa RAM, Saranga AGC, Sarathchandra GGB, Senadeera MATS, Senevirathna WMEA, Shasna MSF, Abeyrathna P

PP036   **Applications of Artificial Intelligence in Healthcare**
Singh J, Jindal A, Raizada A, Singh S, Goel A, Gupta L

PP038   **Are people residing in villages affected by elephant attacks psychologically distressed; a cross-sectional comparative study**
Fernando DD, Fernando KKNS, Ekanayake EMT, Warnasekara YPJN, Fazniya AHF, Ekanayaka RSIA

PP040   **Operation-related work-stress and its associated factors among police constables in the general police force in the district of Colombo**
Niyas R, Gunathunga MW

PP041   **Spatial distribution of missed leprosy patients during COVID pandemic in Kalutara district**
Ranaweera KDNP, Wijesekara D, Alawathukotuwa AGCD, Kahawita IP, Suriayachchi N, Gunasekara MCW, Boteju G, Wickramasinghe N, Premarathne EMGTGVD

PP042   **Prevalence of premenstrual syndrome/ Premenstrual dysphoric disorder among government school teachers in Pathahewaheta MOH area**
Wasala SA, Dharmarathne SD

PP043   **Is soil microbiome different in climate zones of Sri Lanka; A possible hidden factor causing epidemiological diversity of diseases; A study using factor analysis**
Warnasekara J, Srimantha S, Senavirathna I, Jayawardana S, Wijesooriya S, Agampodi S

PP044   **Risk factors for low resilience among grade 10 adolescents in the Gampaha District**
Manori DMS, Jayawardana PL, Godamunne P

PP045   **Health Related Quality of Life of the Hypertensive Patients Attending a Tertiary Care Hospital in Central Sri Lanka**
Kumara DMID, Jayalath TA, Amarasinghe TS

PP046   **Nutritional status and associated factors of 12-month-old children in a Jaffna**
Aathirayan S, Kumarendran B, Galappatti DI

PP047   **Availability of essential services for people living with non-communicable diseases as its effect on health related quality of life of people living with non-communicable diseases in Attanagalla Divisional Secretariat.**
Vidanagamage SP, Kumarapeli V

PP048   **Research protocol: identification of the cognitive domains of academic skills to screen specific learning disorders in primary school children in Sri Lanka**
Wijesekara WMLDJ

PP049   **First co-infection of malaria and Hepatits E diagnosed in Sri Lanka**
Senarathne S, Rajapakse S, de Silva HJ, Seneviratne S, Chulasiri P, Fernando D

PP050   **Clinical and laboratory characteristics associated with death in a group of patients with moderate or severe COVID-19 at a tertiary care hospital in Sri Lanka**
Wettasinghe I, Samarasinghe SM, Wijekoon S, Sugathapala AGH, Mujaheith MI, Senaratne C, Wijekoon CN

PP051   **The presence of strongyloidiasis and associated risk factors in patients undergoing treatment at the National Cancer Institute, Maharagama, Sri Lanka**
Weerasekera CJ, Menike CW, Wimalasiri U, Wijerathna T, Jayathilake DCC, Somawardane UABP, Saravanamuttu U, Yoganathan N, Perera N, Gunathilaka N, De Silva NR, Wickremasinghe DR

PP053   **Patient experience matters for improving healthcare services in Cutaneous Leishmaniasis in Rural Sri Lanka**
Gunasekara SD, Wickramasinghe ND, Fernando WMS, Agampodi TC, Dikomitis L, Agampodi SB

PP054   **Investigating the influence of metabolic syndrome on the antibody responses against SARS-CoV-2**
Pushpakumara PD, Jeewandara C, Danasekara S, Nimasha T, Rizna, Bary F, Perera L, Jayamali J, Tang T, Townsend A, Ogg GS, Malavige GN

PP055   **Seroprevalence of antibodies to the BA.2 and BA.4/BA.5 SARS-CoV-2 variants in the Colombo Municipal Council area, Sri Lanka**
Rizan FRM, Jeewandara C, Danasekara S, Nimasha T, Jayamali J, Chathurangika H, Aberathna S, Peranantharajah D, Colambage HS, Perera L, Randini I, Wickramanayake WPRH, Karunananda M, Tanussiya S, Guruge D, Wijayamuni R, Jayampathi C, Hacker K, Tang T, Townsend A, Ogg GS, Malavige GN

PP056   **A preliminary screening of compounds from temperate zone plants for activity against Leishmania mexicana**
De Silva NL, Molena R, Mobely R, Nash RJ, Horrocks PD, Price HP

Poster Presentation Session 2

PP058   **The financial impact of patients with visual impairment who were admitted for surgery; empirical study at National Eye Hospital-Sri Lanka**
Warnakulasooriya PH

PP060   **Assessment of infrastructure facilities on healthcare waste management in Type A Base Hospital in Kalmunai region**
Remance MM, Sumathy M, Mayuran N

PP061   **Assessment of knowledge on use of personal protective equipment among health staff engaged in COVID-19 management in selected healthcare institutions**
Dharmagunawardene PVDS, Wedamulla A, Wijesuriya N, Gobith R, Siriwardena SMADK, Ponweera D, Bowman P, Hinchcliff R

PP062   **Health effects and academic performance on students participating in online learning in basic sciences of a newly established medical faculty**
Wariyapperuma UM, Peries WANN, Atapattu PM

PP063   **Factors associated with the feedback literacy of undergraduate clinical students of three medical faculties in Sri Lanka**
Sanchayan S, Olupeliyawa AM, Chandratilake M

PP064   **Time management techniques of medical students of the University of Ruhuna and their impact on examination results**
Senevirathne RMAST, Senerath SM, Sewwandi DLCR, Senanayake TADCY, Senanayake SMTN, Jayawardene AJPM

PP065   **Why physicians hesitate to do postgraduate studies; Self-perceived reasons, perceptions, and expectations of role stagnated medical officers in Anuradhapura, Sri Lanka; A qualitative study**
Kulawansa PDTD, Kumarasinghe WGGV, Kulathunga ME, Kumari RSN, Kirinda GWRWMSI, Kiriwaththuduwa KNR, Warnasekara YPJN

PP066   **Attitudes and perceptions of medical students at Rajarata University of Sri Lanka towards volunteering in emergency situations**
Shaifa MS, Zaina MHF, Wimalarathne HMP, Withanage WSSGS, Lakranda WMCY, Zahra FHF, Paththinige CS

PP068   **Socio-economic effects on informal caregivers of long-term hospitalized adult patients: A cross-sectional study**
de Silva GPUP, Varun S, Nandasena RGMS, Pathirana AA, Weerasekera DD

PP069   **National Medicines Regulatory Authority (NMRA) new pharmaceutical pricing policy: Effects of verification of importer declared cost insurance and freight (CIF) value**
Fernandopulle BMR, Janakalani MV, Konara KMPY, Heshani SLI, Balasooriya BMW, Abayawardane C, Mahakalanda I, Abeykoon P

PP070 **Knowledge, attitudes, and beliefs about liver transplantation among caregivers of children with liver diseases; a single centre experience from Sri Lanka**
Gunaratne ALSN, Gunarathna PGPD, Gunawardana ADJN, Hansamali UVS, Heenkenda HMAN, Ekanayaka J, Fernando CMP

PP071 **Hepatic and renal status of paediatric patients with thalassaemia**
Wijenayake W, Pathiraja H, Thennakoon R, Fernando M, Bandara D, Mettananda S

PP072 **Knowledge, attitude and practices on universal micronutrient supplementation among mothers of infants in the Kurunegala District of Sri Lanka**
Bandara ERS, Wijekoon J, Mettananda S

PP073 **Epidemiological and clinical features of snakebites in children**
Rathnayaka RMMKN, Ranathunga PEAN, Kularatne SAM

PP074 **Clinical and EEG characteristics of children with first episode of childhood epilepsy with centrotemporal spikes (CECTS) in a tertiary care paediatric neurology centre in Sri Lanka**
Rupasinghe JPN, Galhenage JS, Rathnayake PD, Wanigasinghe J

PP075 **Pre-hospital exposure to antibiotics among children presenting with fever in medical ward settings of a tertiary care hospital of Sri Lanka: a cross-sectional study**
Nowfeen MHF, Fazla AAF, Karunaratne KW

PP076 **Psychosocial well-being of overweight and obese children attending a specialized clinic for weight-related problems in Colombo, Sri Lanka**
Athukorala NS, Athukorala ANC, Babilawattage PS, Wickramasinghe BAM, Ranasinghe TADN, Yoosoof MBF, Rodrigo GDI

PP077 **Factors leading to febrile convulsions in children presenting with fever; a case control study from a children's hospital, Colombo, Sri Lanka**
Sivabalan K, Siyambalapitiya SANN, Somasekara ASD, Walpita WDYN

PP078 **Griscelli syndrome with Downs syndrome complicated with trabeculated bladder and deranged renal functions**
Dasanayake DTMN, Perera RMS

PP079 **Prevalence and associated factors of hypothermia among neonates admitted to the premature baby unit (PBU) of District General Hospital Nawalapitiya: a retrospective analysis**
Kasturiarachchi SS, Alwis VKIU, Kumara AWS

PP080 **Experiences and challenges faced by 13-14-year-old children with severe asthma during lung function testing**
Perera NADS, Nayakarathne NMDGB, Edirisinghe EYS, Chandrasiri WAPN, Ananda SDWK, Rajapakse RMSI, Nuwangi H

PP081 **Challenges in conducting spirometry in adolescents**
Nayakarathne NMDGB, Perera NADS, Edirisinghe EYS, Chandrasiri WAPN, Ananda SDWK, Rajapakse RMSI, Nuwangi H

PP082 **Parental knowledge and attitudes about child sexual abuse and their practices of sex education in a Sri Lankan setting**
Rohanachandra YM, Amarakoon DLU, Alles PS, Amarasekera AU, Mapatunage CN

PP084 **Community Readiness for alcohol prevention in rural Sri Lanka**
Priyadarshana C, Pushpakumara J, Rajapakse T, Dawson AH, Pearson M

PP085 **The relationship between musculoskeletal pain and the level of stress among final year students of University of Colombo**
Ranathunga RAMD, Rajasuriya M

PP086 **Perinatal paternal depression in a sub-urban area in Sri Lanka**
Wijesinhe SAVW, Chuwan JC, Wijesinghe WAIC, Suraweera C, Fernando S

PP087 **Validation of the Sinhala version of internalized homonegativity scale in males who identify as gay and bisexual in Sri Lanka**
Manchanayake LD, Baminiwatta AKAB, Delpachithra ML, Wijesinghe CA

PP088 **Strength and barriers of Family Centered Approach in the management of children with Autism Spectrum Disorder (ASD) as perceived by Primary Caregivers**
Pathirage AI, Parindya NM, Pahanage PARV, Ranawaka PRD, Dahanayake DMA

PP089 **Prevalence and associated factors of burnout among doctors working in hospitals with COVID-19 treatment units in Anuradhapura District, Sri Lanka during COVID-19 pandemic: A descriptive cross-sectional study**
Rambukwella GU, Amila Isuru, Ediriweera D

PP090 **The association between negative experiences during childhood and social anxiety disorder: A cross-sectional study among Sri Lankan university students**
de Silva BGR, De Zoysa PT, Pathmeswaran A, Williams SS

PP091 **Relationship between musculoskeletal pain and health related quality of life among nurses in a selected government teaching hospital**
Sulakkhana LPN, Atapattu PM

PP092 **Body image and its relationship with prosthetic satisfaction and duration of use among below knee amputees in Sri Lanka**
Nadeeshani KMD, Kisokanth G, Prathapan S

PP093 **The influence of shoe heel height on lower limb joint pain and functional disabilities among female office workers in selected office settings in the Colombo District**
Masinghe MAKY, Silva CD, Jayalath JLR

PP094 **External breast prostheses use, its influencing factors and impact on the quality of life among postmastectomy patients in Sri Lanka**
Perera CD, Perera MDN, Pitigala UD, Arambepola C

PP096 **Evaluation of health-related quality of life among patients before and after total hip arthroplasty in a selected hospital in Sri Lanka**
Maddumage HH, Pathmanathan C

PP097 **Effectiveness of mobile health applications in physiotherapy management/rehabilitation outcomes compared to other traditional methods: a systematic review and meta-analysis**
Pushpika GDS, Kumaradasa PP, Pathmanathan C

PP098 **The prevalence and associations of foot arch abnormalities with musculoskeletal pain of the trunk and lower limb joints in obese adults attending selected hospital clinics**
Lakmani ESD, Perera RS

PP099 **Prevalence and types of musculoskeletal pain and fatigue among chronic cancer patients in selected cancer types attending the Cancer Institute, Maharagama**
Jayarathne KKDS, Jayalath L

PP100 **Anthropometric knee profile measurements on articulator surface of femur among Sri Lankan population**
Fernando GKS, Ranaweera L, Cabral LLE, Dissanayaka P, Bandara IDMRN, Sovis WFUN

PP123 **Outcome of Radical Nephrectomy with Inferior Vena Cava (IVC) Thrombectomy, a multicentre case series**
Arudchelvam J, Samarasinghe RN, de Silva WAS, Abeygunasekara AM, Perera BL, Abayajeewa ANK, Herath HMMNB, Gunasekara M, Wijewardena M, Cassim R, Wijeyaratne SM

PP171 **Morbidity profiles and hidden burden of comorbidity among patients attending the primary care facilities in Anuradhapura district of Sri Lanka**
Abeyrathna P, Samaranayake S, Agampodi SB, Pushpakumara PHGJ

PP101 **Prevalence and associated factors of knee osteoarthritis in the Western province of Sri Lanka; an epidemiological survey**
Fernando DR, Gamage YH, Katulanda P, Atukorala I

PP102 **Frozen shoulder following cardiac surgery; Sri Lankan experience**
Kurukulasuriya SAF, Mettananda KCD, Jayaratne KIWGMN

PP103 **Quality of life in patients attending rheumatology clinics at NHSL, diagnosed with inflammatory arthritic conditions**
Wickremasinghe HGT, Wickramasinghe WKVK, Wickramagunaratne HN, Suranadee S

PP105   **Association between of BMI and balance on ankle sprain among Club Netball players in Colombo**
Malshani KLI, Wickramasinghe D

PP106   **Exercise behaviour and perceptive barriers for exercises among adults in five different occupation groups in Anuradhapura Municipal Council area**
Bandara PRSRJ, Senadheera SPAS, Wickramage SP, Fernando PHP

PP107   **Relationship between body mass index and agility of female undergraduates in Faculty of Medicine University of Colombo**
Prasadini DGYS, Liyanage UA

PP108   **Association of quadriceps angle and strength of hip abductors on spinal mobility among female, obese Faculty of Allied Health Sciences (FAHS) undergraduates of Sir John Kotelawala Defence University (KDU)**
Perera ADP, De Silva SHSC, De Silva MBTB, Sangeewani RAG

PP110   **Effectiveness of the interventions to enable people to involve the aerobics/ yoga regularly: Systematic review**
Munasinghe PM, Gajanayake C, Kalubowila K

PP111   **Comparison of physical fitness in young male rugby and football players in Kotelawala Defence University (KDU)**
Perera ADP, Siriwardana RP, Bandaranayaka AKMSS

PP113   **Designing and implementation of a T-ARMS-PCR assay to genotype genetic variants associated with Retinoblastoma in a cohort of a Sri Lankan population**
Shathushika A, Wetthasinghe TK, Dissanayake MM, Abeysekara H, Irugalbandara D

PP114   **Knowledge and Attitudes towards premarital screening (PMS) tests among undergraduates of the Faculty of Allied Health Sciences, University of Peradeniya, Sri Lanka**
Ahnaff MAM, Atapattu AMMP

PP115   **Development of a protocol for CALR type 1 and type 2 mutations detection in Primary Myelofibrosis and post-Polycythemia-Vera Myelofibrosis and genotype correlation with JAK2V617F mutation**
Daniel CR, Noordeen N, Ishak C, Somasundaram P, Goonasekara HWW

PP116   **Methylation status of inflammation-related genes in healthy long-term meditators: A case-control study**
Dasanayaka NN, Sirisena ND, Samaranayake N

PP117   **Prevalence and association of first-trimester obesity with gestational diabetes mellitus among pregnant women, Batticaloa**
Nazeefa HMFJ, Ratnatunga CN, Adikari SB, Thirukumar M

PP118   **Relationship between the level of physical activity and recurrent leg cramps among pregnant women in a selected hospital in Sri Lanka**
Nimesha PPGC, Jayasundara DMCS

PP119   **Public perspective on the uses and indications of surrogacy within the Sri Lankan context**
Grero KLW, Munasinghe MAA, Beneragama DM, Gamage TGJN, Withana JL, Pathiraja RP, Prathapan S

PP120   **Relationship of gestational weight gain and fetal birth weight in different Body Mass Index (BMI) groups, among 20-35 aged women in a selected hospital of Western Province**
Gunasekara SRMSP, Kaluarachchi A

PP121   **Association of Emergency caesarean section with Antenatal Obesity in Rural Sri Lanka**
Dharmasoma UWNK, Agampodi TC, Agampodi SB

PP122   **Endometrial stromal nodule: can it appear as degenerative leiomyoma?**
Sandya PH, Premadasa JK, Jayawardhana MPGNS

Poster Presentation Session 3

PP124   **Prevalence and Impact of congenital malformations in paediatric surgery: A comprehensive One-Year Retrospective Analysis**
Athukorala KADCK, Hettiarachchi HCM, Bandara HMCD, Athauda AASD, Balasinghe ST, Ayman SMM, Bandara CMNM, Benaragama KN, Banu MNN, Arudsivam A

PP125   **Arterio-venous malformation in appendix present as an acute abdomen; case report**
Wijerathne BPN, Sineka SHS

PP126   **A prospective study on drain fluid amylase as an indicator of clinical outcome in patients undergoing Whipple surgery**
Gishanthan S, Tillakaratne S, Bulathsinhala BSK, Uragoda B, Siriwardana RC

PP129   **Transoral Endoscopic Ultrasonic surgery (TOUSS), A novel robotless Surgery: First experience in Sri Lanka: a case report**
Rizny MSM, Weerasuriya NT

PP130   **Histological types, treatment and associated factors amongst female breast cancer survivors followed up at Apeksha Hospital, Maharagama, Sri Lanka**
Goonewardena CSE, Fernando CS, Manjika S, Wijewickrama GK, Senaratna BCV, Seneviwickrama KLMD, Somawickrama DNM, de Silva KGB

PP132   **Prevalence and the antibiotic susceptibility of pathogens causing bacteremia in neutropenic patients with neoplastic disease in a District General Hospital in Sri Lanka**
Fernando TRP, Priyadarshani HHC, Pannala TC, Ranawaka R, Welgama SS, Fernandopulle PAH, Warnakula PMT

PP133   **Assessment of knowledge, attitude and practice on chemotherapy among oncology patients**
Chandrasena WMHNM, Shanika LGT, Jayamanne SF

PP134   **Knowledge, attitudes & practices regarding breast neoplasms among females in Sri Jayawardenapura Kotte Divisional Secretariat Division, Colombo**
Wickramaarachchi WAUP, Wickramasinghe WAKD, Wellappuli WADY, Withanage SSY

PP135   **Cardiotoxic effects following Hump-nosed pit viper (hypnale spp.) bites**
Rathnayaka RMMKN, Ranathunga PEAN, Kularatne SAM

PP136   **A preliminary study to compare prevalence of dental caries among type 2 diabetic patients and non-diabetics at the VP OPD clinic TH Peradeniya**
Manatunge SR, Ariyawansha TA, Gunawardana WPM

PP137   **In-vitro antimicrobial properties of selected medicinal plants against Uropathogenic Escherichia coli**
Fernando KMK, Ilangage JIMK, Ilangakoon IACS, Dissanayaka DMMK, Rajapaksha NPD, Hettiarachchi D, Walpola L

PP138   **Personal protection and SARS-Cov-2 transmission in healthcare workers**
Mahla V, Goel A, Raizada A, Sharma R

PP139   **Impact of the present economic crisis on chronic disease follow-up of general public of Sri Lanka: A comparative study between Western Province and Uva Province**
Adikaranayake AMPR, Fernando DR, Nilaweera AI, Perera AN, Daksina TDT, Wijayatilaka NT, Nethmini ULT, Hettiarachchi EDH, Weerakoon KGSH, Jayalath WKDN, Sathushan T, Indrawansa S, Wijayaratne D, Katulanda P

PP140   **Efficacy and safety of Ivermectin in the treatment of COVID-19 patients in Sri Lanka: IVERCOV, a multi-centre double-blind randomised controlled clinical trial**
Wijewickrema A, Banneheke H, Pathmeswaran A, Refai FW, Karunaratne M, Malawige N, Jeewandara C

PP141   **A preliminary assessment of medication adherence and impact of clinical pharmacy interventions on medication optimisation in patients with acute coronary syndrome**
Bagyawantha NMYK, Gawarammana IB, Coombes ID, Fahim M

PP142   **Adherence to good pharmacy practices of community pharmacies in the Gampaha District, Sri Lanka**
Basnayaka BMTDD, Ashara SF, Ashik KJM, Bandara BMMP, Bandara HMAC, Basnayake BMMSM, Mettananda KCD

PP143   **Development and validation of indicators to determine safety of prescribing medicines in Sri Lanka**
Weliwatte IP, Samaranayake NR, Jayawardane P, Galappatthy P

PP145   **Pregnancy and neonatal outcomes presented among mothers who were on antipsychotics and other medications during the gestational & prenatal period in selected hospitals - Sri Lanka**
Eriyawa WMABW, Fernando GKS, Sathsarani UMS, Dharmapala NDSC, Bandara SMMS, Sovis WUN, Perera KPJ

PP146   **High prevalence of antibiotic-resistant gram-negative bacteria detected by the Bio Fire Film Array Pneumonia Plus panel in patients hospitalized with lower respiratory tract infection**
Bodinayake CK, Nagahawatte A, Devasiri V, Wijayaratne G, Woods C, Vanderburg S, Nicholson B, Sheng T, Kurukulasooriya R, Dilshan B, Wickramatunga PGTS, Tillekeratne G

PP147   **Tumour budding as a predictor for Lymphovascular Invasion in Colorectal Cancer**
Kosgallana EW, Wijetunge S, Malaviarachchi SL, Prathapan S, Prematilleke IV

PP149   **Retrospective Computed Tomography Scan Study of COVID-19 patients in Sri Lanka**
Lanka PVHK, Sathkorala W

PP150   **Role of interventional radiology in paediactric liver transplant**
Fernando M, Gunathilake B, Tillakaratne S, Siriwardana RC, Appuhamy WNDPC, Padmasiri UGM

PP151   **Impact of haemophilia on health related quality of life in adult males attending the haemophilia clinic at National Hospital of Sri Lanka**
Hafna S, Ratnamalala V, Gooneratne L

PP152   **Saviour turned killer: Death due to faulty airbag system**
Seneviratne P, Vadysinghe AN, Ekanayake EMKB, Wickramasinghe CU, Kumarasinghe WGGB, Sanjaya B

PP153   **Postmortem findings of Hump-nosed pit viper (hypnale spp.) bites**
Rathnayaka RMMKN, Ranathunga PEAN, Kularatne SAM

PP154   **Knowledge, attitudes and practices regarding road traffic safety in 3rd year undergraduate students of Faculty of Engineering, University of Moratuwa**
Premalal UKM, Rajaguru RMICY, Rajakaruna MP, Gunasekera GCS

PP155   **Knowledge on common snakes of Sri Lanka, bite prevention, first aid and associated factors among the adults of Ragama Medical Officer of Health area**
Jayasinghe AG, Hettiarachchi IU, Ilukpitiya ISL, Imanji RPC, Huzair MMM, Jayatissa RNU, Kurukulasuriya SAF

PP057   **Knowledge, attitudes and practices regarding malaria among undergraduate students**
Godamunne RWSM, Gunasekara DDN, Gunathilaka PKAP, Gunawardana LD, Gunawardana PKNP, Gunawardana SPJU, Weerakoon K

PP157   **Fasting blood glucose, nutritional status, diet and lifestyle factors in a group of Sri Lankan undergraduates**
Kaldera PH, Wickrmathilake CM

PP158   **Perception on the accessibility to healthy food choices or alternatives of workers in selected garment factories during the economic crisis**
Fernando KNA, Elikewela DMJM, Edirisinghe EMMN, Edirisooriya SN, Ekanayake KLHT, Fernando KTSD

PP159   **Daily dietary calcium intake among medical undergraduates at Rajarata University of Sri Lanka**
Gamage GSV, Fernando LJMP, Fonseka OMV, Gamage KGMN, Geethashli HKAVR, Godamunna MMHD, Weerakoon HTW

PP160   **Fatty acid profile and phenolic acid profile of raw and processed Artocarpus nobilis (Ceylon breadfruit) seed**
Sewwandi K, Ramiah S, Alles CNRA, Wijesundara DSA, Liyanage R

PP161   **How the nutrition policies implement in Sri Lanka to promote health and development of adolescents; a qualitative study**
Kandegedara KGPH, Wickramasinghe R, Niwarthana G, Heiyanthuduwage S, Prakash S, Manfra L, Pallewaththa P

PP162   **Characterization of lotus (Nelumbo nucifera) and water lily (Nymphaea pubescens) seed starch as excipients compared to maize starch BP**
Kankanamge SU, Jayasuriya WJABN, Herath HMDR, Pathirana RN

PP163   **Quality of life and psychological impact among patients with food induced anaphylaxis at a clinic in Sri Lanka**
Ranasinghe TND, Aberathna AMIS, Jayamali MPDJ, Chathurangika PH, Malavige GN, Jeewandara JMKC

PP164   **Clinical characteristics of allergy to Cocos nucifera (Coconut) in Sri Lankan children**
Aberathna AMIS, Ranasinghe TND, Malavige GN, Jeewandara JMKC

PP165 **Weight loss attitudes and preferences among medical undergraduates of Rajarata University of Sri Lanka**
Wijerathne SS, Wijerathna IHTN, Wijerathna PGKIS, Wijesinghe DDGM, Wijesooriya A, Wijewardena PIU, Bandara PRSRJ

PP187 **The effectiveness of an intervention to manage occupational stress among bus drivers of Sri Lanka Transport Board in Colombo District**
Illangasinghe DK, Alagiyawanna MAAP, Samaranayake DBL

PP166 **A study on the prevalence of Familial Hypercholesterolaemia (FH) among laboratory samples in Sri Lanka**
Matthias AT, Mahbooba S, Kaushalya J, Jinasena TMR, Hewa Saman P, Samaranayake TSP, Fernandopulle ANR

PP167 **Epidemiology of eczema among children aged 13-14 years from Anuradhapura Municipal Council area, Sri Lanka**
Sumanapala SDVK, Sulakkhana MS, Subhanee KKT, Thennakoon TMSL, Sivabalan PS, Sriwardhana SJTC, Rajapakse RMS

PP168 **Prevalence of injection site complications and their association with knowledge and practices of pre-mixed insulin usage among patients with diabetes mellitus attending NHSL diabetes clinic**
Elvitigala R, Farwin A, Najdah F, Kalyani HHN

PP169 **Association of shoulder joint mobility with diabetes mellitus in patients with type 2 diabetes mellitus**
Isurika MLT, Siridewa K

PP170 **Anthropometric parameters of newly diagnosed patients with myocardial infarction admitted to tertiary care hospitals of Western Province of Sri Lanka – a case-control study**
Perera DAPS, Samaranayaka TPS, Chulasiri PU

PP172 **Study on frailty among a selected group of community-dwelling elderly people in the Colombo District**
Perera MACL, Ediriweera de Silva RE

PP173 **Effect of fear of falling on physical activity in older adults with type 2 diabetes mellitus**
Sandeepani WANR, Wettasinghe AH

PP174 **Knowledge and attitudes regarding hearing aid use and factors associated with it among elders diagnosed with age- related sensorineural hearing loss attending, ear, nose, throat (ENT) clinic at National Hospital, Sri Lanka**
Muhunthan K, Milinda GS, Siriwardana HVYD

PP012 **Assessment of individual perceptions on asthma symptom control and the quality of life among asthmatic patients attending the respiratory clinic of Teaching Hospital Anuradhapura, Sri Lanka**
Karunathilake MKP

PP175	**Current knowledge and perception related to advance life support (ALS) among medical and nursing officers in a District General Hospital**
Sanfar ANM, Thabitha T, Samarajeewa CUK

PP176	**Knowledge, attitudes, and practices about first aid given for childhood injuries among mothers of preschool children in Ragama MOH area, Sri Lanka**
Wickramasinghe PMTB, Jayasena AKOM, Jayathilake JMPS, Jayathissa JTM, Jayathissa AVAP, Jayawardena MAT

PP177	**Emergency Physician performed Focused Cardiac Ultrasound (FOCUS) as a tool in early diagnosis of Occlusive Myocardial Infarction (OMI) to escalate the treatment**
Ariyasinghe HADMP, Baker KL

PP178	**Assessing motivation to lose weight: the psychometric properties of the Sinhala version of University of Rhode Island Change Assessment (URICA) scale**
Niriella MA, De Silva ST, Hapangama A, Baminiwatta A, Fernando R, Ediriweera D

PP179	**Haemodialysis status, compliance to recommendations and end of one-year outcomes among haemodialysis patients in resources-limited setting, National Hospital- Kandy**
Atapattu AMMP, Dassanayake HDWTD, Dharmarathne SD, Nanayakkara N

PP180	**Urinary Peptidase Inhibitor 3 could be a potential biomarker for diabetic and hypertensive nephropathy**
Saseevan S, Nishanthi WAAGN, Rajapakse S, Magana Arachchi DN

PP181	**A Systematic Review Exploring the Quality of Food and Water Consumed by People with Chronic Kidney Disease of Unknown Etiology (CKDu) in Sri Lanka**
Uthayarajan N, Jayawardene KLTD, Weerasekara I

PP183	**Assessment of the degree of disability using Barthel Index and determinants of disability among acute stroke patients admitted to Teaching Hospital Karapitiya – a descriptive study**
Perera WCS, Dissanayake A

PP184	**Relationship between physical activity level, depression and sleep quality of patients with Parkinson disease**
Kawmadi PPD, Dahanayake DMA

PP186	**A case of Febrile Infection-Related Epilepsy Syndrome (FIRES)**
Hettige DH, Bandusena S, Mendis A, Satharasinghe DS, Gunasekara S, Fernando MAH

ABSTRACTS OF POSTER PRESENTATIONS

Poster Presentation Session 1

PP001
Point of view on a digital health application in mitigating risk factors of non-communicable diseases; sharing of experience from a Singapore health cluster

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Introduction
Digital health is an adaptation of new technologies and a transformation of every part of medicine. Amongst them, personal health management and wellness applications becoming popular in health education and health promotion worldwide.

Objectives
To describe the adherence, trackers for positive feedback & self-efficacy of a web application used for risk communication of Non-Communicable Diseases in a Singapore health cluster.

Methods
A critical analysis was done to describe the attitudes and perceptions among a sub-group of participants who were involved in a web application for 06 months, which was developed for the purpose of delivering health messages and guided self-care behaviours as a risk communication method. It was initiated by one of the health clusters in the island (National University Health Systems -NUHS). Adherence for each session, trackers for positive feedback & self-efficacy of the application were key areas of interest.

Results
Majority of the subjects adhered to all the sessions of the programmes. Trackers for self-care behaviours being used moderately and it is said to be time-consuming and found it difficult to handle practice as a web-based programme. Elderly people comply with trackers, as a reminder of their goal and next self-care activity. Many preferred to use the application together with family or peer groups for more self-efficacy and motivation rather than adhering to the programme alone.

Conclusion
Mobile health care application was preferred over web application. A place for higher adherence and self-efficacy was in favour of connectedness with others in this digital approach to NCD risk communication.

Key words: *Digital health applications, NCD risk communication, Self care behavior*

Knowledge and attitudes regarding homosexuality and their associated factors among pre-clinical medical students at the Faculty of Medicine Peradeniya

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Introduction
There is a marked deficit of studies on knowledge and attitudes regarding sexuality and sexual minorities among medical professionals and students in Sri Lanka. Improving health professional students' attitudes is essential to avoid giving suboptimal care to such patients. This research will uphold positive considerations on homosexuality.

Objectives
This study aimed to assess the knowledge and attitudes regarding homosexuality and their associated factors among pre-clinical medical students at the Faculty of Medicine Peradeniya.

Methods
This analytical cross-sectional study was done among pre-clinical medical students of FOM UOP, recruiting 424 participants. Outcomes were measured using Sex Education and Knowledge about Homosexuality Questionnaire (SEKHQ) and the Attitudes Towards Homosexuals Questionnaire (AHQ). The data was anonymously obtained through a Google form. Data analysis was done using JAMOVI (2.3.21). Associations were tested using independent sample t-test, one-way ANOVA, and Pearson's correlations. A p-value of 0.05 was considered statistically significant.

Results
The majority had a positive attitude towards homosexuality (74.1%). But only 14.9 % had more than 50% of knowledge scores. The association between knowledge and negative attitudes was -0.409 ($p<0.001$). Knowledge was associated with religion (F=3.62,p=0.025) and sexual orientation (F=13.65,$p<0.001$). Attitudes were associated with sex (t=-2.317,p=0.021), sexual orientation (F=7.74,p=0.004), religion (F=5.91,p=0.003), academic year (F=4.184,p=0.007) and age groups (t=2.33,p=0.020).

Conclusion
The majority had less knowledge about homosexuality. Most represented positive attitudes toward homosexuality. Knowledge and attitudes were positively associated. Religion and sexual orientation were associated with knowledge. Sex, sexual orientation, religion, academic year, and age groups were associated with Attitudes.

Key words: *Homosexuality, Knowledge, Attitudes, Medical Students*

PP003

Factors influencing the maternal choice of packaged snacks for 6-10 years old children: a cross-sectional study from MOH area Balangoda

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Introduction
Childhood overweight and obesity due to unhealthy diet results in several adverse effects. Mothers play a major role in selecting snacks for younger children.

Objectives
This study assessed the factors associated with the choice of packaged food/beverage snacks among mothers of 6-10 years old children in the Medical Officer of Health (MOH) area Balangoda.

Methods
A community-based descriptive cross-sectional study was conducted among 450 mothers having 6-10 years children, through a two-stage, stratified, simple random sampling technique, in randomly selected 10 PHM areas of MOH area Balangoda, using an interviewer-administered questionnaire. Factors associated with maternal practices on packaged snack selection were assessed through chi-square test, at $p<0.05$ significance level.

Results
The response rate was 99.3% (n=447). Children were commonly provided with biscuits (94.4%) and flavoured milk (44.7%), daily (66.4%), at home (93.5%). The majority of mothers had poor practices on selecting packaged snacks (88.8%) but, good knowledge (62.9%) and favourable attitudes (93.5%) on packaged snacks. Maternal Sinhalese ethnicity ($p<0.0001$); secondary or higher education ($p<0.0001$); having one child ($p=0.003$); residing in a rural or urban area ($p=0.011$) and having favourable attitudes ($p=0.002$) were associated with poor maternal practices on packaged food/beverage snacks selection.

Conclusion
Though maternal knowledge and attitudes towards packaged snacks were good, their practices on selecting packaged snacks were poor. Maternal ethnicity, educational level, number of children, area of residence and attitudes were significantly associated with their selection of a packaged snack. Implementation of focused community-based health promotion programmes to empower mothers on the selection of healthy packaged snacks is recommended.

Key words: *packaged snacks, maternal choice, children*

PP004

Epidemiology of allergic rhinitis among 13-14-year-old children from Anuradhapura Municipal Council area, Sri Lanka

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Introduction

Allergic rhinitis is a common chronic disease in children and adolescents. It is often underdiagnosed despite its high prevalence.

Objectives

To describe the epidemiology of allergic rhinitis among 13-14-year-old children from the Anuradhapura Municipal Council area.

Methods

An analytical cross-sectional study was conducted in grade 8 classes of 6 government secondary schools located in the Anuradhapura Municipal Council area. Schools and classes were selected using multistage sampling. The prevalence of allergic rhinitis and associated factors were assessed with the validated translated International Study of Asthma and Allergy in Childhood questionnaire.

Results

The study sample consisted of 528 (51.3%) male and 501 (48.7%) female participants in the 13-14-year age group. Eye and nasal symptoms were reported at least once in the lifetime in 387 (37.6%; 95% CI 34.6%-40.6%) children. Allergic rhinitis was reported in 266 (25.9%; 95%CI 23.2%-28.6%) children and eye symptoms were reported in 142 (13.8%; 95%CI 11.8%-16.0%) children. Activities of daily living were disturbed due to nasal symptoms in 195 (18.9%; 95%CI 16.6%-21.5%) with moderate-severe disruption reported by 54 (20.3%; 95%CI 15.6%-25.6%) children. Nasal symptoms were more common in the months from October to February. Allergic rhinitis was independently associated with severe asthma (OR 5.6; 95% CI 3.7-8.5), having a corrugated metal sheet roof (OR 6.1; 95% CI 1.0-37.3) and playing 4-6 times per week (OR 1.5; 95% CI 1.0-2.3). Sleeping on a rubber mattress (OR 0.6; 95% CI 0.3-1.0) was a protective factor against allergic rhinitis.

Conclusion

One out of four children in the study sample had allergic rhinitis.

Key words: *Allergic rhinitis, Epidemiology, School children*

PP005

Proportion and associated factors of being at risk of cybersex addiction among adult internet users in Sri Lanka

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Introduction
The Internet has become feasible for the acquisition, growth, and maintenance of sexuality with the peoples' perception of the easy accessibility, affordability, and anonymity of cyberspace. Cybersex addiction (CSA) is conceptualized as the connection between internet addiction and sex addiction.

Objectives
The aim of this study was to describe the proportion and factors associated with being at risk of CSA.

Methods
A descriptive cross-sectional study was conducted in cyberspace of Sri Lanka by using a pretested self-administered questionnaire with a culturally adapted Internet sex screening test (ISST) among 460 adult Internet users by using a snowball sampling technique. Data were analyzed with descriptive statistics and associations were determined using binary logistic regression. Ethical clearance was obtained from the Ethics Review Committee, Faculty of Medicine, Colombo.

Results
The response rate was 77.6%(n=357). Of the respondents: the mean age was 36.8 years (SD±6.9 years) and the majority were males and professionals; 60.2%(n=215) and 75.2% (n=243) respectively.
Of the respondents, 85.4% (95%CI-81.2%-88.8%, n=305), 8.1%(95%CI-5.3%-10.9%,n=29), 6.4% (95%CI-4.3%-9.5%,n=23) were found to be at low risk, moderate risk and high risk respectively as per validated cut-offs of ISST.
Being at risk of CSA was positively associated with being a male(OR=40.7,95%CI-3.9-424.1,p=0.002), being a smoker (OR=18.8,95%CI-4.4-79.7,<0.001), usage of internet for >4 hours on average per day (OR=10.5,95%CI-2.7-41.3,p=0.001) and negatively associated with involving in indoor games as leisure time activity (OR=0.06,95%CI-0.01-0.87,p=0.004) in multivariable analysis.

Conclusion
Being at risk of CSA would increase by excessive usage of the internet and having addictive behaviour and reduced by engaging in leisure time activities like indoor games.

Key words: *Cybersex addiction, Sri Lanka, risk factors*

PP006

Clinical audit on notification of notifiable diseases in secondary care hospitals in the Batticaloa District

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Introduction
A notifiable disease is identified as a disease for which regular, frequent, and timely information regarding individual cases is considered necessary for the prevention and control of the disease. Both government and private medical practitioners should notify the notifiable diseases to the relevant Medical Officer of Health (MOH), who initiate the preventive measures as earliest. The early action from the MOH is vital to prevent the outbreak which will reduce the morbidity and mortality of the community.

Objectives
The objective of this study was to audit notification of notifiable diseases in secondary care hospitals in the Batticaloa District

Methods
A clinical audit was conducted in all 4 Base Hospitals in the Batticaloa district. Secondary data of notified diseases in 2022 was collected from hospital and ward notification registers and in the electronic Indoor Morbidity and Mortality Report (eIMMR) of Medical Record Rooms. The percentage was calculated, entered in eIMMR as the denominator and notified diseases as the nominator.

Results
Notifications for communicable diseases were satisfactory as a district (98.5%). Hospital-wise performance of notifications varied. Except for BH Valaichenai, the other three Base Hospitals have notified more than 100%. In BH Valaichenai breakdown of ward-wise notifications was also found less in all wards (male & female medical and pediatric wards were 69.2%, 30%, and 68.6% respectively).

Conclusion
When comparing manual notifications with eIMMR, it should be more than 100%, because notifications were sent on suspicion, thus overall notification system of the district was satisfactory.

Key words: *Notifiable diseases, secondary care hospitals, clinical audit*

PP007

Delayed diagnosis of malaria: a challenge to the prevention of re-establishment of malaria in Sri Lanka

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Introduction

When a malaria case is diagnosed, antimalarial treatment is commenced immediately to ensure a radical cure. Parasitological and entomological case surveillance and investigation commence within 24 hours to prevent onward transmission. A delayed malaria diagnosis will lead to higher morbidity and mortality in the patient and a risk of onward transmission.

Objectives

To study and highlight the delays in malaria diagnosis.

Methods

The duration of time taken for 292 imported malaria patients to seek medical treatment from the onset of symptoms, and the time taken for a clinician to diagnose malaria confirmed by blood smear examination were recorded.

Results

Forty-seven per cent of the 292 patients had consulted a clinician on the same day as the onset of symptoms whilst 4.1 % (n=12) of patients took 10 or more days from the onset of symptoms to contact a clinician. On average patients contacted a clinician 2.97 days (SD=8.45) after the onset of symptoms.

Thirty-two per cent of patients were diagnosed on the same day that they contacted a clinician, and 50.7 % of patients were diagnosed within 3 days of making contact. However, in 8.9 % of patients, it took 10 or more days to diagnose malaria after the first contact with a clinician. On average a malaria diagnosis was delayed by 4.55 days after the first contact with a clinician.

Conclusion

Although patients presented to the health system early with symptoms of malaria, the average delay in diagnosing malaria by clinicians was unacceptably long. Increasing awareness amongst medical personnel to ensure early diagnosis is important.

Key words: *Malaria ,Sri Lanka, Delayed diagnosis, Prevention of re-establishment of Malaria*

PP010

Prevalence of digital eye strain, associated factors, awareness and utilization of preventive measures amongst GCE A/L students of Colombo District

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Introduction

Digital Eye Strain (DES) is a vision related problem, resulting from prolonged use of digital devices. COVID-19 pandemic led to an upsurge in DES due to social distancing.

Objectives

This study aimed to estimate prevalence of DES, associated factors, awareness and utilization of preventive measures amongst G.C.E. A/L students in the Colombo district.

Methods

A cross-sectional study among 403 G.C.E. A/L students of a selected institution, chosen using simple random sampling. Prevalence was evaluated using the Computer Vision Syndrome Questionnaire (CVS-Q). A self-developed questionnaire assessed associated factors and preventive measures. Data was analyzed with IBM SPSS version 25.

Results

This study found that 72.5% (95% CI: 67.8% to 76.8%) of participants had DES using a validated cut off score of ≥ 6. Headache (90.1%) and double vision (15.4%) were the most and least common symptoms respectively. Female gender (p< 0.01), being a student of the 2021 A/L batch (p< 0.01) and use of corrective spectacles (p= 0.041) were associated with DES. Usage of digital devices for less than 3 hours before commencement of online education (p= 0.009) and more than 6 hours per day after commencement of online education (p= 0.004) were significantly associated with DES. 75.6% of participants had moderate to high awareness of DES prevention, with 69.2% reporting good utilization of preventive measures. High awareness was associated with good utilization of preventive measures. (p<0.001).

Conclusions

Despite high awareness and utilization of preventive measures, there was a high prevalence of DES.

Key words: *Digital Eye Strain , COVID-19, Online education*

PP011
The knowledge and practices of GCE Advanced Level students in Kandy city regarding antibiotics and antibiotic resistance

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Introduction

Educating school children is a recognized method to communicate a message to the wider community. This has been identified as a measure to take in the strategic plan for combating antimicrobial resistance. This study was arranged to identify the current status of knowledge and practices in relation to antibiotic use in this group.

Objectives
To describe the knowledge and practices related to antibiotics and antibiotic resistance among Advanced Level students in Kandy city.

Methods
This cross-sectional study involved 196 students from the Advanced Level science section of five Grade 1AB schools in Kandy city. Data collection was done after obtaining ethical and administrative clearance using a self-administered Google forms-based questionnaire. A knowledge score was calculated. The chi-square test was used to compare the knowledge scores according to the independent variables.

Results
The majority of the participants (65.8%) were females with a median age of 18.00 (IQR 18-19) years. Knowledge scores ranged from 0 to 94.4 with a median of 61.1 (IQR 50.00-72.2). Two third (67.86%) of the participants had scored ≥ 50 marks. However, 30.1% of participants had incorrectly identified Paracetamol as an antibiotic. There was no significant difference in knowledge scores between the sexes (p=0.657) or the presence of a healthcare worker at home (p=0.905). One-third (34.7%) of the participants have taken antibiotics without prescriptions. Further 47.4% identified the common cold as a disease which can be cured with antibiotics.

Conclusion
Despite an apparent high knowledge some misbeliefs identified such as the identification of paracetamol as an antibiotic by 30% of the population was concerning.

Key words: *Antibiotic resistance, antibiotics, school children*

PP013

The quality and associated factors on newborn screening for congenital hypothyroidism among postnatal health care providers in state hospitals of the Colombo District

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Introduction
Congenital hypothyroidism (CH) is the commonest preventable cause of mental retardation among newborns, which can be prevented by screening

Objectives
The objective is to assess knowledge, attitudes, practices, and associated factors on newborn screening for CH among Medical Officers (MO) and Nursing Officers (NO) providing postnatal care in state hospitals of the Colombo district

Methods
A descriptive cross-sectional study was conducted in six state hospitals of the Colombo district. All MO (n=209) and 394 NO selected through stratified sampling at postnatal units were

included. Data was collected using a self-administered questionnaire and an observation checklist to assess practices among NO.

Results
The overall knowledge was good among (82.3%, n=172) of MO and (56.1%, n=221) of NO. The attitudes on screening were favourable among (56.5%, n=118) of MO and (54.3%, n=214) of NO. Standard practices were followed by (56.7%, n=17) NO. Being an intern or preliminary grade (p=0.002), working in a paediatric unit (0.004), and midwifery trained NO (p=0.004), significantly associated with good knowledge. Significant associations for favourable attitudes were <30 years (p=0.0004), MBBS only (p=0.000), work experience <5 years (p=0.000), being a MO of other grades (p=0.000), intern MO (p=0.004) and current appointment of <6 months (p=0.001).

Conclusion
Overall knowledge of hypothyroidism screening was good among MO and NO. Approximately 50% with favourable attitudes and adherent to standard practices warrant further action on strengthening these aspects.

Key words: *Congenital hypothyroidism, Medical Officers, Nursing Officers*

PP014
Trends of Overweight and Obesity in Sri Lanka among Adults: A Scoping Review

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Introduction
According to WHO, among adults 1.9 billion and 650 million were overweight or obese respectively in 2016. Alarming trend found among South Asians during last decade, 6.6 million children <5 years and 1/5 adults are currently overweight. Causes of obesity is multifactorial and has high morbidity and mortality from metabolic syndrome related consequences. The economic costs are profound. National prevalence of obesity in Sri Lanka is not reported. Strategies for treatment and prevention of obesity should be done at multiple levels.

Objectives
To review literature on prevalence of obesity in Sri Lanka and discuss potential interventions.

Methods
A systematic literature search of studies in English was conducted in PubMed, Google scholar, Medline databases, and local databases (e.g., Ministry of Health, Sri Lanka) on prevalence of obesity 2005-2019. Additionally, unpublished articles were searched manually.

Results

There were 7 cross sectional studies and 1 case-control study met inclusion criteria. Prevalence of overweight range from 14.5% to 32.7% among males and 11.9% to 36.5% among females. The participants of Healthy Lifestyle Centers reported an increase in overweight from 25.1% to 29.1 in five years (2016 to 2020). The variability in study population in these studies limited further analysis.

Conclusions

Literature review suggest that despite a paucity of data, there is a noticeable increase in trends of obesity in Sri Lanka. 1) It is important to systematically capture national level weight/obesity data in Sri Lanka 2) It is vital to explore inter-disciplinary, multifaceted and culturally appropriate interventions to address this issue.

Key words: *Overweight, Obesity, anthropometric data of adults*

PP015
Impact of social marketing campaign in improving case detection of leprosy

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Introduction

World Health Organization certified Sri Lanka as a country that eliminated Leprosy as a public health problem in 1995. But annually about 2000 new leprosy cases are being reported. Social media is a powerful platform which can be used for general public awareness. About 7.5 million population in Sri Lanka use Facebook accounts. Leprosy case detection was low in the first 8 months of 2022. When only 600 new cases were diagnosed with case detection rate of 4.2 per 100,000 population.

Objectives

To improve the rate of detection of new leprosy cases through a social marketing campaign on social media.

Methods

LIFE Sri Lanka (Leprosy Initiative For Elimination) Social Marketing Campaign was launched by the Anti Leprosy Campaign in Mid-August 2022. Leprosy awareness posts and Video clips were designed. LIFE Sri Lanka Facebook Accounts were created National level and District Level. Life Sri Lanka YouTube Channel was also launched. The created posts were widely disseminated in LIFE Sri Lanka Facebook page and YouTube Channels. Further, Posts and Video clips were shared in WhatsApp and Viber platforms at no extra cost. Continuous awareness programs were conducted throughout the year.

Results

New leprosy case detection was increased up to 11.4 per 100,000 with detection of 800 new leprosy cases within the last 4 months in 2022. Compared to the first 8 months, case detection has increased in 23 Districts.

Conclusions

Social marketing is a cost-effective strategy that can be implemented to increase awareness and case detection of leprosy in low resource settings.

Key words: *Leprosy, LIFE Sri Lanka, Social Marketing*

PP016
Prediction of epidemic dynamics for omicron (BA.5) in Nepal context

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Introduction

Nepal is a landlocked country bordering China in the North, and the porous borders on east, west and south with India.

Objectives

The COVID-19 case surge was reported in India during April-May 2022 by BA.5 raised concern in Nepal. We conducted a modelling study to estimate the case load, burden on hospitals and death toll in Nepal, and to assess the effect of mask use on transmission.

Methods

A three-stratum SEIR compartmental model was used. The community was stratified based on the immunity to SARS-CoV-2. The factors considered were symptomatic and asymptomatic infections, hospitalization, and death. Routine surveillance data and COVID-19 sero-surveys results were used to estimate the model's initial state and parameter values.

Results

The simulation predicted 300,000 daily infections at the peak of the epidemic, of which only 8000 would be detected, with expected 300 new COVID-19 hospital admissions and seven deaths per day.

Observed 1,090 detected cases against 8,000 predicted at the peak. The expected deaths closely followed the routine reporting. Nepal doesn't have robust hospital admission data, but available data shows hospitalization rate was on the predicted median at the initial phase.

Effective mask use by 30% of the population would reduce viral transmission by 50%.

Conclusions
The model predicted a possible case surge with an expected minimal burden on hospitals and the death toll. Recommended need based resource allocations with minimal stockpiling. Also, recommended standard COVID-19 preventive measures without the need for any lockdown.

Key words: *Nepal, SARS-CoV-2, COVID-19, omicron, BA.5, modelling*

PP017
Non-communicable disease profile and associated factors among work from home based software engineers in Sri Lanka

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Introduction
Work From Home (WFH) nature has endorsed the sedentary life style of software engineers who are already having multiple risk factors for Non-Communicable Diseases (NCD).

Objectives
Aim of the study was to describe the profile of NCDs and associated factors among WFH software engineers.

Methods
Cross sectional study was conducted using an online questionnaire among 822 WFH software engineers. Multi stage cluster sampling was conducted with a sample frame of all registered software companies in Sri Lanka. Professional Life Stress Scale (PLSS) was used to assess work-related stress.

Results
The median age was 32 years with male: female ratio of 3:1. Majority (n=438,74.2%) did not have any NCD. Commonest NCDs were hyperlipidemia (12.12%), diabetes (9.24 %) and hypertension (6.83%). Among the individuals with NCDs, 5.29% (n=31) had multi-morbidity. Majority (59%, n=346) had inadequate sleep (< 6 hours) and physical inactivity (51.5%, n=302). Smoking (n=93,15.9%) and alcohol consumption (n=344, 58.7%) was observed only in males. Multiple risk behaviours including smoking, using alcohol, inadequate sleep and physical inactivity was observed in 6.6% (n=39).
Smoking (OR=2.5, 95%CI: 1.6-4.1, p=0.015) and inadequate sleep (OR=1.6, 95%CI: 1.1-2.4, p<0.015) had significant associations with presence of NCD. Use of alcohol and physical inactivity failed to show significant associations with NCDs. Work related stress was found in 38.2% and it had significant positive association (OR=2.3,95%CI; 1.6-3.3, p<0.001) with presence of NCDs.

Conclusions

One fourth of WFH software engineers were having NCDs. Majority had multiple risk behaviours for NCDs, including work related stress as an added risk.

Key words: *risk behaviours, professional stress, software engineers*

PP018

Professional life stress & associated factors among work from home based software engineers in Sri Lanka

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Introduction

Higher mental and cognitive processing creates a demanding, stressful background in software engineers.

Objectives

The aim of the study was to assess the professional life stress of software engineers on mandatory work from home (WFH) nature during COVID-19 pandemic.

Methods

An online cross-sectional study was conducted among 822 WFH software engineers. Multi stage cluster sampling was conducted with a sample frame of all registered software companies in Sri Lanka. Professional Life Stress Scale (PLSS) was used to assess the level of professional stress.

Results

The median age was 32 years with a male: female ratio of 3:1. Prevalence of professional life stress was 38.2% with the commonest category being moderate level of stress (n=201, 34.5%). Females had 1.6 times likelihood of having stress compared with males (95% CI: 1.14 – 2.42). Being a married software engineer (OR=2.3 ;95% CI: 1.6 –3.3) with employed spouse (OR=2.9; 95% CI: 1.6-5.4) and having a child under one year of age (OR=4.3; 95% CI: 1.78-10.32) had significant associations with stress. Not having flexible work hours (OR=4.2, 95% CI: 2.6-6.8) was significant, but having to work in extreme hours or engage in extra duty had no association with stress (p>0.05). Software engineers who did not prefer WFH had 11.8 times likelihood of having stress (95 CI= 5.4 -25.4).

Conclusions

More than one third of the WFH software engineers were having stress related to professional life. Family structure, home work environment and work nature had significant associations with the level of professional stress.

Key words: *work related stress, homework environment, software engineers*

PP019

What causes violence among youth in Sri Lankan technical colleges? A participatory action research

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Introduction

High rates of youth violence are reported in low and middle-income countries including Sri Lanka leading to many adverse consequences for youths, their families, and communities.

Objectives

This study aimed to identify determinants of youth violence among students in a Sri Lankan technical college.

Methods

The study used a community-based health promotion model in line with Participatory Action Research (PAR) approach. The study was conducted at a technical college in the Central Province of Sri Lanka with a sample of 74 students. According to the health promotion model, a goal was set with participants to create a "violence-free technical college", and discussed the importance of understanding the determinants of violence. Four Focus Group Discussions (FGDs) and seven Key Informant Interviews (KIIs) were conducted to identify determinants. The FGDs and KIIs were audio-recorded, transcribed verbatim, and analyzed using the thematic analysis method.

Results

During the analysis, 10 individual-level determinants such as childhood bad experiences, substance abuse, mental stress, and unemployment, 12 family-level determinants such as domestic violence, family disruption, alcohol use of parents, low family income, and poor parenting skills, 06 school-level determinants such as school drop-out, peer influence, and poor connection with school, 05 technical college-specific determinants such as subculture, and diversity among students, and 09 societal-level determinants such as glamorization of violence, discrimination, social norms, and disparity and inequity could be identified.

Conclusions

The PAR approach was effective in exploring many underlying determinants of youth violence. Furthermore, the study participants were able to successfully engage in identifying determinants through a health promotion intervention.

Key words: *Determinants, Health promotion, Youth violence*

PP020

COVID19 vaccine acceptance and the factors associated with vaccine acceptance among older adults residing in a selected MOH area of Colombo Municipal Council

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Introduction
A special COVID19 vaccination program was launched in Sri Lanka targeting vulnerable groups, which also included the older adults.

Objectives
This study aimed to describe COVID19 vaccine acceptance, and the factors associated with vaccine acceptance among the older adults living in Colombo Municipal Council

Methods
A descriptive cross-sectional study was conducted -among 512 older adults in the District 5 of Colombo Municipal Council selected using a systematic sampling technique. A pretested interviewer administered questionnaire (IAQ) was used to collect data through telephone interviews. The data analysis was done using frequencies and Chi-square test.

Results
The response rate was 95%, mean age of the study participants was 71.25 years (SD; 7.36). Majority were females (56.1%; n=273) and Tamils (49.5%; n=241). The vaccine acceptance (receipt of all three vaccine doses) among study participants was 90.8% (n=442).
A statistically significant association was noted between vaccine acceptance and ethnicity ($\chi2$ =18.2, p<0.001), educational level($\chi2$ =24.2, p<0.001),monthly income($\chi2$ = 34.2, p<0.001), presence of chronic diseases ($\chi2$ =5.28, p=0.02), knowledge on COVID19 vaccines ($\chi2$ =17, p<0.001), known persons living abroad ($\chi2$ =7.9, p=0.005), their vaccination status ($\chi2$ =9.7, p=0.008), history of previous infection ($\chi2$ =18.6, p<0.001), history of first contact ($\chi2$ =5.9, p=0.015), experience of COVID19 infection among known persons ($\chi2$ = 11.2, p=0.001), and known persons working in the health sector ($\chi2$ =12.8, p<0.001).

Conclusions
COVID19 vaccine acceptance was good among older adults in D5 MOH area of CMC. The best practices should be adopted in other areas in future new vaccine introduction campaigns.

Key words: *sixty above population,Vaccine received*

PP021

Factors associated with quality of life among government primary school teachers in Gampaha District in new normal context (COVID 19)

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Introduction
The Covid19 pandemic encountered various health risks worldwide in 2020. Primary school teachers had to balance their working and personal life commitments with increased uncertainty and anxiety while adapting to cope and overcome emerging new normality.

Objectives
The study aimed to assess Quality of Life (QoL) and associated factors among primary teachers at government schools in Gampaha district during the covid pandemic.

Methods
A descriptive cross-sectional study was conducted. A multistage stratified cluster sampling method was used and a sample of 520 responded to validated, pre-tested, self-administered questionnaire which included SF 36 to define socio-demographic, work-home environment and service-related factors that associated with QoL. Statistical analysis was done with Chi-square test, with statistical significance at probability 0.05 level.

Results
The response rate was 81.25%. Majority were female participants (87.3%%) at age of 41 to 40 years (31.7%) from provincial schools (80.8%). Statistically significant association ($p < 0.05$) was seen between quality of life and females of age category 21-30 years (87,7%), having NCD history (59.1%), service period of 5 to 10 years (78.3%), receiving family support (72.1%), adequate sleep (75%), adherence to covid preventive measures (74.2%) and having online facilities as teaching aid (81.4%) in new normal context were specified through SPSS analysis.

Conclusions
The socio-demographic, work home interface, work environment related factors and adherence to covid preventive measures were identified as having positive association with QoL among primary school teachers in state schools of Gampaha district in new normal context.
Establishing appropriate supportive mechanisms by emphasizing resilience is recommended to improve Quality of life.

Key words: *Covid19 pandemic, Quality of Life, Primary teachers, New normal context*

PP022

Relationship between mobile phone screen time and physical activity level among undergraduates in the University of Peradeniya

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Introduction
Undergraduates are at risk of becoming addicted to their smartphones and spending more time on screen. Increased screen time has a negative impact on the level of physical activity.

Objectives
To describe the relationship between mobile phone screen time and physical activity level among undergraduates in the University of Peradeniya.

Methods
A descriptive cross-sectional study was conducted among 662 undergraduates representing each faculty in the University of Peradeniya. Data was collected through a self-administered questionnaire, and it included questions on mobile phone/s screen time, the International Physical Activity Questionnaire and a short version of the smartphone addiction scale.

Results
533 responses were received from the participants. The majority of them were females (61.2%). The average duration of using mobile phone/s was 5.27 hours on a weekday and 6.96 hours on a weekend day. WhatsApp (93.7%) was the most used application followed by Facebook (72.2%). 44.5% of the participants were found to be addicted to mobile phone/s. 78.4% of them use social media monthly packages. An equal number of participants (38.5%) were found to be inactive and minimally active. Only 22.9% (n= 122) of them had good physical activity levels. The average reported sitting time was 4.9 hours per day. Male participants (p=0.050) and participants involving leisure time activities (p=0.014) were significantly more physically active than their counterparts.

Conclusion
A significant number of undergraduates were found to be addicted to their mobile phone/s and physically inactive. Mobile phone screen time was negatively associated with physical activity level.

Key words: *Undergraduates, Social media, Health, Leisure time activities*

PP023

An overview of predatory journals of health-related disciplines and research publications by South Asian authors

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Introduction
Predatory journals primarily focus on generating profit, while providing rapid publication without proper peer-review. Beall's list is a comprehensive and reliable guide to identify predatory journals.

Objectives
This study aimed to identify the features of predatory journals publishing articles that are health related and to determine the number of articles published by authors from South Asia.

Methods
A descriptive cross-sectional study was conducted using Beall's list, to identify the health-related predatory journals. Articles published in English by authors from South Asian countries from 2020 to 2021 were identified.

Results
In total, Beall's list included 1310 journals covering a wide range of subjects, but only 171 journals were identified as health-related. Most of them were published from India (n=126,73.7%) while few journals did not mention their country of origin (n=12,7.0%). Only a few of the identified journals (n=60,35.1%) carried at least one article from the South Asian region. The highest number of articles were published from India (n=4472). A total of 24 articles were from Sri Lankan authors. The journal with the highest number of articles (n=2550) was also from India. Many journals did not provide information on article processing duration (n=117,68.4%) and publishing frequency (n=96,56.1%). The range of article processing charges varied from 0 to 3600 USD.

Conclusion
Majority of the predatory journals publishing in health-related fields originate from India. Authors from Sri Lanka were rarely publishing in predatory journals while many articles originated from India. Authors should be made aware of the existence of predatory publications.

Key words: *predatory journals, health-related, publications*

PP024

Challenges, experiences and perceptions of mothers of 13-14 years old school children with poor asthma control from the Anuradhapura Municipal Council area, Sri Lanka

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Introduction
Parents, as primary caregivers, play an important role in the management of asthma in adolescents.

Objectives
To describe the challenges, experiences and perceptions of parents of asthmatic adolescents.

Methods
The asthma epidemiology was assessed among 13-14-year-old children from six government schools selected by multistage sampling using the validated International Study of Asthma and Allergies in Childhood questionnaire. Children with severe asthma completed the Asthma Control Test (ACT) questionnaire. Parents of poorly controlled asthmatics (ACT-score<19) were interviewed via telephone. Responses were analyzed with thematic analysis manually.

Results
Of the 1029 children in the study sample, 111 (10.8%) had severe asthma and 29 (29.3%) severe asthmatics had poor control of asthma. In-depth interviews were conducted with 15 parents who had a child with poor asthma control. Three major themes; perceptions about asthma, preventive strategies and challenges of having an asthmatic child, were identified. Parents had a clear understanding of the trigger factors for asthma exacerbations in their children. Many knew that inhaled or oral bronchodilators and steroids are effective in symptom relief and prevention. However only a few mothers used them during exacerbations. Mothers have experienced fear, anxiety, frustration and insomnia during asthma exacerbations, especially at night. The child's poor compliance with the treatment, absenteeism at work, lack of support from family and insufficient information given by healthcare providers were major challenges faced by mothers in treating asthma.

Conclusions
Improving treatment compliance of adolescents and establishing proper support systems for mothers would help improve health outcomes.

Key words: *Severe asthma, Parental challenges, Adolescents*

PP025
Knowledge and its associated factors among patients admitted with Acute Coronary Syndrome to secondary care hospitals in Kalutara District

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Introduction
Demographic and epidemiological transition has led to rising trends of Acute Coronary Syndrome (ACS) in Sri Lanka. Improved knowledge on ACS among patients is critically important in its primary, secondary and tertiary prevention.

Objectives
The study was done to assess the knowledge, and to describe the associated factors among the patients admitted with ACS to secondary care hospitals in Kalutara District.

Methods
A descriptive cross-sectional study was done among ACS patients admitted to Kalutara, Panadura and Horana hospitals from December 2021 to January 2022. Consecutive sampling was used and a pre-tested interviewer-administered questionnaire was utilized. Analysis was done with Statistical Package for Social Sciences version 25. Knowledge scores were calculated and associations were evaluated with Chi-square test at a significance level of 5%.

Results
The response rate was 91 % with 437 participants being recruited. The mean (SD) knowledge scores on "positive clinical features (out of 10)", "trap symptoms (out of 10)" and "risk factors immediate remedies (out of 18)" and "total knowledge score (out of 38)" of ACS were, 6.38(1.84), 4.63(2.66) 12.7 (3.2) and 23.77 (5.16) respectively. Notable deficiencies in knowledge were noted in identifying abdominal pain (32.5%), leg swelling (21.3%). A significant association of total knowledge was observed with age (p=0.019). Associations of knowledge with gender (p=0.278), educational level (p=0.091), income level (p=0.980) and disease severity (p=0.239) were not statistically significant.

Conclusions
Majority of patients had a relatively good knowledge on risk factors and positive clinical features. Knowledge on identification of trap symptoms were not satisfactory. More research must be encouraged with analytical study design.

Key words: *Acute Coronary Syndrome, Knowledge on Acute Coronary Syndrome, Kalutara district, Association of Knowledge*

PP026

Knowledge, attitude and practices of healthcare-seeking behaviour in leptospirosis among farmers in a Medical Officer of Health area in Sri Lanka

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Introduction
Leptospirosis is a relatively high disease burden with significant mortality mainly affecting working age population in Sri Lanka. In its secondary prevention, early health-care seeking is given priority.

Objectives
The aim of the study was to describe the knowledge, attitude and practices of healthcare-seeking behaviour in leptospirosis among farmers in Pelmadulla Medical Officer of Health (MOH) area.

Methods
A community-based cross-sectional study was conducted among paddy farmers in the Pelmadulla MOH area. The cluster-sampling method was used taking a farming community as a cluster unit. Pre-tested interviewer-administered questionnaire was utilized by trained interviewers. Scoring systems for knowledge, attitude and practices were developed using expert inputs. Descriptive statistics were used.

Results
The response rate was 97% with 426 farmers being recruited. The majority of farmers were between 40 to 59 years. Male to female ratio was 10 to 1. The mean (SD) knowledge, attitudes and practice scores on health care seeking were; 7.17(1.59), 5.14(2.96) and 7.78 (2.7) respectively. The majority, 66% (n=281) of the study sample had the good knowledge of healthcare-seeking behaviour in leptospirosis, out of all the participants, 13.6% (n=58) had zero total attitude score, with 50% categorized as poor, while 50% (n=213) of the study sample had a good attitude. Only, 25.1% (n=107) of the study sample had a good practice score.

Conclusions
About half of the study population had good knowledge and attitudes but evident poor practice of healthcare-seeking in the study sample. The identified deficiencies need to be addressed through targeted programs.

Key words: *leptospirosis, health seeking behaviour, knowledge on leptospirosis, attitude on leptospirosis, practices on leptospirosis*

PP027

The knowledge, perceptions and practices of public health midwives with provision of post-natal care for women with GDM in selected Medical Officer of Health (MOH) areas in Gampaha district

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Introduction
There is a significant risk of developing type 2 diabetes (T2DM) in women with a history of gestational diabetes (WWGDM) and evidence-based interventions are recommended for the prevention or delay of development of T2DM. Post-natal period is considered suitable for such interventions.

Objectives
To describe the knowledge, perceptions and practices of public health midwives (PHM) with provision of post-natal care for women with GDM in selected Medical Officer of Health (MOH) areas in Gampaha District.

Methods
A descriptive cross-sectional study was carried out in 2021 in nine randomly selected MOH areas in Gampaha District. Multistage sampling technique was used to recruit 368 PHMs. Data were collected with a self-administered pre-tested questionnaire from PHMs on knowledge, perceptions and practices. Data were collected by trained data collectors: Knowledge, perceptions and practices were categorized as good, or poor based on a cut off of 60% on calculated scores. Descriptive statistics and significance were calculated through SPSS software version 21.

Results
There were 355 PHMs (response rate of 98%). Out of them 316 (89.0%) PHMs had a good knowledge, 225 (63.4%) good practice and 347 (97.7%) good perception on prevention of T2DM in women with GDM. Age, experience in service, knowledge and perceptions of PHMs were not significantly associated (p>0.05) with good practice.

Conclusions
The PHMs knowledge and perceptions were good, however, practices were comparatively poor. Further studies are needed to identify the reasons for poor practices among PHMs.

Key words: *Gestational diabetes, post-natal care, type two diabetes*

PP028

Analysis of theoretical and strategic underpinnings of Facebook content used for COVID prevention in Sri Lanka

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Introduction
With the spread of the COVID-19 pandemic, health communication content educating the public were launched at a mass scale. Ministry of Health Sri Lanka took the lead role in communicating the new normal and lifestyle changes.

Objectives
To describe the theoretical and strategic underpinnings of selected COVID-19 related video content

Methods
A team of two researchers, with experience in communication and Public Health, analyzed selected videos (excluding documentaries and animations) on Facebook. Videos produced from 2020 to 2023, shared on an official government institution page were purposively selected for content analysis. User engagement, the overall theme and the adaptation to Social marketing mix, Laswell's Communication model and Health Belief Model were used to deductively analyze the videos. Each component was scored between zero to three.

Results
Among the 24 videos, length varied from 30 seconds to 22 minutes. They addressed various topics such as vaccination, hand washing, physical distancing. A prominent sentiment conveyed was social responsibility. Views ranged from 1400-5,600,000. Scores for health communication strategies ranged from 18(full score) to 9 while scores for the use of health communication theory ranged from zero to 13(out of 18). Cue to action was very clear in most videos and the strategic approach included the use of partnerships and promotions to communicate the messages.

Conclusions
Sound theoretical underpinnings and health communication strategies have been observed in COVID prevention content with moderate engagement levels. Their reception by the viewer and persuasion needs to be further explored to fully understand the success of the material studied.

Key words: *Health Communication, Content analysis, Facbook, Covid-19*

PP029

Knowledge and pattern of utilization of antenatal care services among primiparous women attending the antenatal clinics at Castle Street Hospital for Women

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Introduction
Antenatal care is the service given to a pregnant woman or an adolescent girl by a skilled healthcare professional to ensure the health and well-being of the mother and the baby. Availability and utilization of antenatal care services play a key role in good pregnancy outcomes.

Objectives
The objective of the study was to assess the knowledge about the antenatal care services provided by the healthcare system and determine the pattern of utilization of antenatal care services among primiparous mothers attending the antenatal clinics at Castle Street Hospital for Women.

Methods
A descriptive cross-sectional study was conducted among 108 primiparous women in their 3rd trimester attending the antenatal care clinics at Castle Street Hospital for Women in Colombo. A pre-tested questionnaire was administered by interviewers, after obtaining informed consent. Gathered data was assessed using a scoring system.

Results
The study reveals, 48.1% of women had adequate knowledge regarding antenatal care, and 53.7% had a good pattern of antenatal care utilization. However, an appeasable number of pregnant women had adequate knowledge of antenatal check-ups, screening tests, maternal health concerns, and maternal supplements and vaccination.

Conclusions
Most of the study population had a good pattern of utilization but they lacked adequate knowledge regarding antenatal care services. It is recommended that providing organized education to couples during eligible couple registration by PHMs at field level and encouraging pregnant women to attend routine ANC visits and check-ups via PHM services would also yield significant improvements in the aspect of ANC utilization.

Key words: *antenatal care, pregnant women, knowledge and pattern*

PP030

Compliance to Antihypertensive Treatments among Hypertensive Patients Attending a Tertiary Care Hospital in Sri Lanka

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Introduction
Compliance is the extent to which a patient complies with clinician's advice when going under treatment. Compliance to treatment varies with several factors including the patient's perception of the disease.

Objectives
This study aimed to identify the patients' compliance to the antihypertensive therapy who are attending Teaching hospital Peradeniya.

Methods
This descriptive cross-sectional study was conducted among 400 patients who attended Teaching hospital Peradeniya seeking treatment for chronic hypertension. A translated and pre-tested version of Hill-Bone compliance (HB-HBP) scale and Brief Illness Perception Questionnaire (BIPQ) was used as a self-administered questionnaire to collect data and p value of 0.05 considered as the level of significance in data analysis.

Results
Among the participants, 265 (66.3%) were females and 135 (33.7%) were males. Participants were 35 to 88 years old (62.15 ± 10.52). Mean duration of hypertension was 7.07 ± 6.98 years. Mean score of HB-HBP scale was 52.76 ± 3.38 out of 56. Total BIPQ mean score was 33.96 ± 10.08 out of 80. HB-HBP total mean score was significantly associated with duration of hypertension ($p=0.035$) while its sub scales, reducing sodium intake significantly associated with living area ($p=0.026$) and medication taking significantly associated with duration of hypertension ($p=0.025$). Mean score of BIPQ was significantly associated with living area ($p=0.009$) and level of education ($p=0.005$).

Conclusions
Study participants displayed a good compliance towards antihypertensive treatments and had a good perception towards hypertensive condition. Living area, duration of hypertension and level of education of the study participants found to be significantly associated with the compliance to treatments and perception towards their disease.

Key words: *Compliance, Hypertension, Illness-perception*

PP031

Prevalence, its work-related associated factors and barriers in minimizing digital eye strain among banking assistants in Colombo District

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Introduction

Digital eye strain (DES) is a preventable condition that has become the most common occupational hazard due to excess usage of digital devices.

Objectives

to describe prevalence, its work-related associated factors and barriers in minimizing DES among banking assistants in Thimbirigasyaya Divisional Secretary (DS) area in Colombo district.

Methods

A descriptive cross-sectional study was conducted among selected banking assistants in selected banks in Thimbirigasyaya DS area. Sample size was estimated with a statistical formula. A self-administered pretested-structured questionnaire was used. Data were analyzed with Statistical Package for Social Sciences version 21.0. Prevalence of DES and its identified barriers were described using descriptive statistics. Associations were evaluated with Chi square test at 5% significance level.

Results

Response rate was 94.08% with 372 banking assistants being recruited. The mean age of study population was 32.5 (SD 0.61) years. Majority were females (n=206, 58.9%). DES prevalence was 70.6%. A tight schedule, presence of tasks with strict-deadlines that need use of digital devices were significantly associated with occurrence of DES ($p<0.05$). Majority (86.6%) of the study population had more than one type of barrier. Tight schedule (60.6%), tasks with strict deadlines (61.4%) and browsing for data frequently (41.7%) were the most commonly identified barriers.

Conclusions

The proportion of banking assistants detected with DES was high in the study sample. Factors identified as being associated with the presence of DES as well as the barriers identified should be taken into account when planning and implementing measures to prevent DES.

Key words: *Digital eye strain, work related associated factors, barriers, banking assistants*

PP032

Impact of present economic crisis on risk behaviour in Sri Lanka: A comparative study between Western Province and Uva Province

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Introduction
Economic crisis is a complex event that affect the behavioral patterns including alcohol consumption and smoking via opposing mechanisms.

Objectives
This study aimed to evaluate the changes in risk behaviours during the economic crisis.

Methods
This descriptive comparative study was conducted for the adults in Western and Uva provinces during the period of November to December in 2022 using a telephone-base interview to collect the data on alcohol consumption and smoking. Descriptive statistics were performed and Chi-square statistic was used to test the associations.

Results
Data on 1955 of participants in both provinces were analyzed. Only 9.6% of participants (Western 8.2% and Uva 11.1%) have smoked ever. Smoking habit was changed (n=164;8.4%) with the EC, increased in 6.1% (10/164) and decreased in 93.9% (154/164). The reasons for these changes were lack of money (63.4%), unavailability of tobacco products (31.7%), rise of prices of tobacco products (62.2%) and psychological distress (4.9%). Also, 12.7% did not change their smoking pattern. About 22.2% of participants have consumed alcohol (Western 21.9%, Uva 22.5%). Alcohol consumption was changed in 45.4%, increased in 5.6% and decreased in 94.4%. This change was not significantly different in the two provinces ($p>0.05$). Betel chewing was high in Uva province (13.3%) than Western (9.9%). Main reason for decreasing the alcohol (82.2%) and smoking (63.4%) behaviours was increased price. In both provinces, the betel chewing was increased with EC in almost same percentage (67%).

Conclusions
Economic crisis decreased the alcohol consumption and smoking due to tight budget constraints.

Key words: *Alcohol consumption, Economic crisis, Risk behaviour, Smoking*

PP033
Assuring food security to prevent malnutrition in Sri Lanka

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Introduction
In Sri Lanka 6.3 million people i.e. over 30% of the population face food insecurity. Around 5.3 million of the aforesaid population, are either skipping or reducing meals, and around 65,000 people are affected by severe food insecurity. The ongoing economic crisis caused high inflation, weaken purchasing power, employment loss, a poor harvest of staple food items, and an acute shortage of essentials such as medicine, cooking gas, and fuel causing high prices, aggravating the country's food insecurity and malnutrition. Food security is when all the people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food which meets their dietary needs and food preferences for an active healthy life.

Objectives
To identify the Strengths, Weaknesses, Opportunities, and Threats (SWOT) of food security in Sri Lanka.

Methods
SWOT analysis was conducted based on official reports, publications and literature. Both micro and macro environment was analyzed which included internal and external forces.

Results
Strengths were identified as well-established public health and governing system, high female literacy rate, empowered communities, conducive environment, and cultivation-friendly climate, availability of science and technology, and skilled manpower. Weaknesses were depreciating foreign reserves, political instability, unemployment, and reduced purchasing power. International funding was an opportunity and threats were global economic crisis and geo-political developments.

Conclusions
Focusing on strengthening food production, industries, transportation, and preservation is the mainstay in stabilizing food security. The continuous monitoring of food security and malnutrition is crucial for policy-making.

Key words: *Malnutrition, Nutrition, economic crisis*

PP034
A methodology for normalizing health data measured in different units for GIS analysis

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Introduction
Geographical Information System (GIS) is a technological field that incorporates graphical features with tabular data in order to assess real-world problems.

Objectives
To measure the area level distribution of cardiometabolic risk indicators such as hypertension, diabetes, obesity and dyslipidemia, and, cardio metabolic risk related lifestyle practices and the social and environmental correlates were studied using the ArcGIS software

Methods
A cross sectional analytical study on cardiometabolic risk among 1350 adults in the Colombo Municipal Council (CMC). Data normalization for entities measured in different units such as mmHg for hypertension, kg/m2 for BMI, mg/dl for blood glucose and years for age as carried out. For each entity, up to 5 scientifically plausible risk categories with a numerical weight (NW) were created.
Lowest numerical risk for each entity was calculated assuming that one person from each risk category was present in a geospatial cluster divided by the number of risk categories.
All other entities assessed in the study were also normalized using this method and fed to the Arc GIS software to create numerical cutoffs of risk categories.

Results
Of the 1270 participants, 817 households were used for the GIS analysis. The normalization of health data to numerical data yielded 28 geospatial clusters of varying risk enabling layering and comparison of risk. Geospatial clusters within Modara, Mattakkuliya, Madampitiya and Lunupokuna demonstrated the highest overall cardiometabolic risk.

Conclusions
Normalizing data using numerical risk weighting was found to be simple, effective and replicable.

Key words: *Numerical risk weighting, Geospatial clusters*

PP035

Employment status and Quality of life of school passed-outs of Rajapaksha Central College, Weeraketiya, Sri Lanka

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Introduction

Quality of life (QOL) can be considered as an indicator of holistic well-being and satisfaction in Life. Unemployment is a major concern among young adults in the local context.

Objectives

The study is aimed to describe the effect of employment status on the QOL of school pass-outs (SPOs) of the 2014 Ordinary Level) batch of Rajapaksha Central College, Weeraketiya (RCCW), Sri Lanka.

Methods

A cross-sectional, online survey was conducted recruiting volunteer SPOs of the 2014 Ordinary Level batch of RCCW. Validated English and Sinhala versions of the World Health Organization Quality of Life Scale - Brief (WHOQOL-BREF) questionnaire were used. Data analysis was done using SPSS version 27.

Results

Out of 211 respondents who were at a mean age of 24.16 years, 32.7%(n=69) were employed and 67.3%(n=142) were unemployed. Employed SPOs have experienced the highest QOL (on a 0-100 scale) in the psychological domain (72.10±11.68) followed by physical health (70.60±12.07) while the QOL of unemployed SPOs was highest in physical health (66.55±12.61) followed by the psychological domain (64.50±13.96). QOL of both groups were lowest in the environmental domain (Employed 66.62±12.88, Unemployed 59.55±14.07) followed by the social relationship domain (Employed 69.81±16.61. Unemployed 62.21±18.64). Employed SPOs experienced a higher QOL in all four domains than those who are unemployed (independent samples T-test Physical health p=0.027 psychological p<0.001 social relationships p=0.004 environmental p<0.001).

Conclusions

Efforts should aim to improve the quality of life of the Unemployed by identifying their concerns. Further investigations aiming at young adults' QOL and employment are recommended.

Key words: *Unemployment, Quality of Life, WHOQOL-BREF*

PP036
Applications of Artificial Intelligence in Healthcare

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Introduction
With the development of more sophisticated computers and the internet, artificial intelligence (AI) gained capabilities. It can carry out human-like tasks, which improves human capabilities. With the widespread adoption of data, the healthcare industry is now generating more data about patient-treatment procedures that can be quickly recorded and analyzed. Several computer science tools assist in the development of AI.

Objectives
This article focuses on current uses of AI in healthcare while projecting its future applications.

Methods
In this scoping review we have discussed the applications of AI in healthcare, including its advantages and challenges while sifting through published literature on this subject.

Results
The role of AI in healthcare is an idea whose time has come and which is here to stay. It is important that we understand and plan the course carefully as we move into the future.

Conclusions
The current healthcare systems are challenged with affordability, while maintaining efficiency as we dive into the realm of personalized medicine. AI has a key role in all these areas. AI helps clinicians make better decisions while enhancing patient experiences. AI offers healthcare providers several advantages, such as better patient care and more effective office procedures. AI is making it possible to make treatment recommendation and early diagnoses. The capabilities of the healthcare system are being improved by ongoing research, which will continue to assist the healthcare provider.

Key words: *AI applications Precision medicine, AI in Elderly care, Clinical decision making, Future of AI in healthcare*

PP038

Are people residing in villages affected by elephant attacks psychologically distressed; a cross-sectional comparative study

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Introduction

Sri Lanka reports the second-highest human deaths in the world due to the Human-Elephant conflict and Anuradhapura district is a primary focus. Injuries, deaths and property damages due to Elephant attacks (EAs) may adversely affect the mental health of residents.

Objectives

To compare the psychological distress in people affected and not affected by elephant attacks.

Methods

This cross-sectional comparative study was conducted in two villages in Kahatagasdigiliya Divisional secretariat, among people affected (Bambarahela) and not affected (Kuda-Messalawe) by EAs. The data collection was performed using the GHQ-12 questionnaire. Age and sex-matched groups from farming communities with similar sociodemographic background except for elephant attacks were recruited from both villages.

Results

Total of 65 and 61 individuals were selected from Bambarahela and Kuda-messalawa respectively. The mean ages were 43.5 and 42.8 years respectively (P=0.7). In the village Bambarahela, 8 individuals out of 65 were distressed and none from Kuda-Messalawa. The difference was statistically significant (Chi–square=8.0, P=0.006). Also, a significant difference between the two villages was observed for all 12 items of the GHQ-12 questionnaire (P<0.05). Therefore, the residents affected by elephant attacks were significantly unhappier, feeling distressed, feeling worthless, sleepless, more under strain, unable to make decisions and unable to enjoy their life (P<0.05).

Conclusions

This indicates a possible threat to the mental health of the people residing in villages affected by EAs.
Therefore, prudent actions are recommended for solving human elephant attack in Sri Lanka.

Key words: *Psychological Distress, Elephants, Mental Health, Sri Lanka*

PP040

Operation-related work-stress and its associated factors among police constables in the general police force in the district of Colombo

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Introduction
Work-stress is rising globally. The prevalence and associated factors of operation-related work-stress among police constables in Sri-Lanka are unknown.

Objectives
To describe the prevalence and associated factors of operation-related work-stress among police constables in general police in Colombo district

Methods
A cross-sectional study was conducted recruiting 1390 police constables(PCs) via random proportionate sampling among all stations in the Colombo district using the validated self-administered Police-Stress-Questionnaire-Operational-Sinhala(PSQ-OpS) and factors-associated questionnaire. Cut-off values for work-stress levels were obtained by using ±1 standard deviation around the mean work-stress score. Bivariate analysis followed by logistic regression determined the significant associated factors.

Results
The mean(SD) operation-related work-stress score was 2.906(0.88). It was significantly higher among females(p=.006) and differed significantly by the police range(p=.001). The "high", "moderate", "low" and "overall high" operation-related work-stress prevalence(95%CI) was 17.9%(15.8%-19.9%), 63.4%(60.9%-66.0), 18.7%(16.6%-20.7%) and 81.3%(79.2%-83.3%) respectively and was higher among the females(p=.008).
After adjusting for confounding significant personal or work-associated factors were; avoidant-coping(aOR-4.4), infrequent religious practices(aOR- 2.74), dissatisfaction with house-work-support (aOR-3.23), having children(aOR-3.27), adverse life-event in previous-year(aOR-2.9), work-family conflict(aOR-5.8), office-related work(aOR-1.9), job task clarity(aOR-3.0), Not getting leave(aOR-3.25), perceiving basic training is inadequate(aOR-3.99), police work is boring(aOR-4.76), unfair resolution of workplace-conflicts(aOR-2.04), dissatisfaction with sanitation(aOR- 2.93)

Conclusions
More than 4/5th of the population under study had "overall high" operation-related work-stress which was significantly-higher among the females. More work factors were significantly associated with operational work-stress than personal factors. Policies and structural reforms are needed to modify work-stress and its associated factors. Mental health promotion and coping programs should be conducted for PCs at recruitment and thereafter at regular intervals.

Key words: *occupational-stress, police-stress-questionnaire-operational-sinhala, Sri Lanka*

PP041

Spatial distribution of missed leprosy patients during COVID pandemic in Kalutara district

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Introduction
Leprosy detection has been reduced by 50% due to the COVID-19 pandemic between 2020-2023. Undetected cases may result in further spread of disease.

Objectives
To identify high risk leprosy pockets to implement control programs in Kalutara District.

Methods
Average number of leprosy cases detected in each Divisional Secretary Division in Kalutara District during 2001-2019 was used to estimate the expected number of leprosy cases to be identified during 2020-2022 period. Then the number of missed cases was calculated subtracting the actually detected cases from the expected value. Data on leprosy patients in the Kalutara district for the previous ten years were extracted from the entire database. Geocoding was done by using ArcGIS Online which is used to import CSV file of leprosy patient locations (Addresses) in Kalutara District. The shape file was downloaded and the shape file was opened in ArcMap. 200m buffer zone was created around the point locations of leprosy patients and then the patient cluster areas identified. Data was represented in Google mymaps for easy viewing.

Results
Total missed leprosy case in Kalutara District was 344. Out of 14 Divisional Secretary Divisions, 5 Divisions represented the 88% of missed leprosy cases during the Covid Pandemic. GIS maps enabled to further narrow down the areas where the missed leprosy cases located to implement the control programs in Kalutara District.

Conclusions
Utilization of GIS technology helped to guide control activities in high-risk areas enabling direction of resources in a targeted manner instead of using equal level throughout the district.

Key words: *Leprosy, Missed leprosy cases, Covid Pandemic, GIS*

PP042

Prevalence of premenstrual syndrome/ Premenstrual dysphoric disorder among government school teachers in Pathahewaheta MOH area

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Introduction
Teachers are more prone to get Premenstrual syndrome (PMS) and Premenstrual dysphoric disorder(PMDD) due to occupational stress and many other other risk factors. PMS is a menstrual disorder that can cause marked reduction of the quality of personal life and working performance which directly affect the performance of the students. Early detection and management of PMS/PMDD among female school teachers will help to improve the quality of life and working performance of female teachers.

Objectives
To determine the prevalence of premenstrual syndrome/Premenstrual dysphoric disorder among government school teachers in Pathahewaheta MOH area.

Methods
An institution based descriptive cross-sectional study was carried out in government schools in Pathahewaheta MOH area. Data was collected from all the female government school teachers using a self-administered questionnaire. After applying exclusive criteria, 390 teachers were selected and prevalence of PMS/PMDD was assessed using Premenstrual Symptoms Screening Tool (PSST) (Steiner et al, 2003). SPSS version 23.0 was used for data analysis.

Results
The response rate was 95.2%. 91.3 %(n=356) of study population had experienced at least one premenstrual symptoms. Among them 29%(n=113) and 8.7% (n=34) were diagnosed for mild and moderate to severe forms of PMS. Prevalence of PMDD was 4.9 %(n=19).

Conclusions
Prevalence of menstrual disorders is relatively high among government school teachers. So that a programme for early detection and management of PMS/PMDD among government school teachers should be initiated to prevent their working performance.

Key words: *Premenstrual syndrome, Premenstrual dysphoric disorder, School teachers*

PP043

Is soil microbiome different in climate zones of Sri Lanka; A possible hidden factor causing epidemiological diversity of diseases; A study using factor analysis

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Introduction
Studies on soil microbiome targeting human pathogens have become increasingly popular. Regional diversity of microbiome is an important factor to understand the epidemiology of diseases as the survival requirements of different bacteria depends on the nature of the living environment.

Objectives
To determine whether the microbiome is different in different climate zones of Sri Lanka.

Methods
A total of 30 soil samples were collected from 12 sites representing dry, intermediate, and wet zones of Sri Lanka. (Anuradhapura, Kurunegala, Dambulla, Mawanella, Gampaha, Rathnapura, Galle and Matara). Metagenomic 16S rRNA gene amplicon sequencing was performed, and rapid annotation analysis was done using the MG-RAST server. Factor analysis with principal component factoring technique using varimax rotation was employed for the analysis.

Results
The most common Genus identified from dry and wet zones were Bacillus, and Clostridium, respectively. KMO and Bartlet test statistic for the dataset was 0.93 (P<0.0001). Four clearly distinct factors were extracted from the factor analysis representing 78% of the total variability. Factor one consisted with the samples predominantly from the dry zone. Samples from intermediate zone have contributed to both factor one and two. Factor two predominantly consisted with samples from Rathnapura and Kegalle of wet zone while factor three consisted with samples predominantly from Southern province of Sri Lanka.

Conclusions
This study has demonstrated the soil microbiome is diverse in different climate zones. Further researches are suggested to determine the association of soil microbiome with human health and its, epidemiological differences.

Key words: *Factor analysis, microbiome, metagenomic analysis, Sri Lanka*

PP044
Risk factors for low resilience among grade 10 adolescents in the Gampaha District

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Introduction
Resilience denotes the ability to withstand adversity and bounce back from difficult life events.

Objective
To determine risk factors for low resilience among Grade 10 adolescents in the District of Gampaha.

Methods
A case-control study with a computed sample size of 128 in each among cases (low resilience) and controls (high resilience) was conducted. Cases and controls were selected by applying simple random sampling to a descriptive study where the magnitude of resilience was determined. For data analysis bivariate (using chi-square test) followed by multiple logistic regression were applied. Results were expressed as adjusted odds ratios with 95% confidence intervals.

Results
Risk factors for low resilience were: one or both parents dead (AOR=3.4; 95% CI [1.1, 10.1]; p=0.031), mother's educational level ≤GCE A/L (AOR=2.3; 95% CI [1.4, 3.6]; p=0.001), losing temper frequently (AOR=2.5; 95% CI [1.9, 3.4]; p<0.001), having <6 friends (AOR=1.4; 95% CI [1.03;1.9]; p<0.048), having <6 close friends (AOR=1.6; 95% CI [1.06, 2.5]; p=0.024), having conflicts with friends (AOR=2.0; 95% CI [1.03, 3.74]; p=0.040), lack of support from home (AOR=1.5; 95% CI [1.04, 2.20]; p=0.031), not seeking help when facing difficult situations (AOR=1.7; 95% CI [1.2, 2.3]; p=0.001), sleeping for <8 hours/day (AOR=1.4; 95% CI [1.2, 1.8]; p=0.007), lack of religious affiliations (AOR=2.6; 95% CI [1.2, 5.7]; p < 0.015) and non-attending Sunday school (AOR=2.1; 95% CI [1.5, 3.2]; p<0.001).

Conclusion
Eleven risk factors were identified. Recommend conducting cognitive behavioural therapy-based interventions regularly at the school level targeting to minimize the impact of the above risk factors.

Key words: *Resilience, Adolescents, Risk factors*

PP045

Health Related Quality of Life of the Hypertensive Patients Attending a Tertiary Care Hospital in Central Sri Lanka

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Introduction
Health-related quality of life (HRQoL) is an individual's view of their health in connection to their objectives, aspirations, and worries as well as the culture and value system in which they live.

Objectives
This study was conducted to measure the HRQoL of hypertensive patients attending a tertiary care hospital in Sri Lanka.

Methods
This descriptive cross-sectional study was conducted among 400 hypertensive patients, attending Teaching Hospital Peradeniya, Sri Lanka. Data was collected using a pre-tested, self-administered questionnaire. RAND Short Form -36 (SF-36) which consists of 8 sub scales, was used to measure HRQoL of the participants on a scale of 0 - 100. Data were analyzed using SPSS version 26.

Results
Majority of the participants were females (246, 61.5%) while the mean age of the participants was 63.2±10.6 years. Total HRQoL mean score was 65.71±19.73. Total mean score for the males (69.87±18.56) and the females (63.11±20.03) had a significant difference (p=0.001). Social functioning had the highest mean score (85.93±22.19) and role limitations due to physical functioning (29.57±43.76) had lowest mean score among the subscales of SF-36. Physical functioning, vitality, emotional well-being, bodily pain, and general health sub scales' mean scores had significant differences with education level, gender, monthly income and disease duration of the participants. Among the participants, 24.8% experienced a worsening of their health condition over time.

Conclusions
HRQoL of the study participants was relatively good. Gender, education level, duration of hypertension, and monthly income of the study participants were found to be significantly associated with the HRQoL of the study participants.

Key words: *Health-related quality of life, Hypertensive patients, Sri Lanka*

PP046
Nutritional status and associated factors of 12-month-old children in a Jaffna

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Introduction
Regional level evidence is vital in addressing triple burden of nutritional problems Sri Lanka is facing currently in the form of underweight, overweight, and micronutrient deficiency.

Objectives
To describe the nutritional status and determine its associated factors among 12-month-old children of Jaffna district.

Methods
A cross-sectional study with an analytical component was done at Child Welfare Clinics in Jaffna district with a sample size calculated by a statistical formula. Cluster-sampling technique was done with a study population that included 12-month old baby-mother dyads. An interviewer-administered questionnaire and a data-extraction-tool were used. Knowledge and practices of mothers on complementary feeding were assessed with a tool compiled with expert inputs. Chi-square test at 5% significance level was used with Odds Ratio as the effect measure.

Results
Sample included 418 baby-mother dyads with a response rate of 82.7%. Among the children, 15.7% (n=34) males and 5.9% (n=12) females were underweight, 10.1% (n=24) and 4.5% (n=9) stunted, and 12.0% (n=26) and 9.4% (n=19) wasted respectively. Female-sex of the child [p=0.001, OR (95%CI) =0.34 (0.17- 0.67)], mother's low-educational status [p=0.045, OR (95%CI) =2.19 (1.01-4.74)], and low family income [p=0.024, OR (95%CI) =2.77 (1.11-6.90)] were statistically significantly associated with poor nutritional status of the children. Mother's knowledge [p=0.993, OR (95%CI) = 1.0 (0.54-1.85] and practice of complementary feeding [p=0.075, OR (95%CI) =1.81 (0.93-3.52)] were not significantly associated factors.

Conclusions
Children of families of lower socio-economic status are seemingly at a higher risk of having unfavorable anthropometric indicators. Further research with multivariable analysis must be promoted in detecting significant predictors of nutritional status.

Key words: *Complementary feeding, underweight, stunting, wasting, Jaffna*

PP047

Availability of Essential services for people living with non-communicable diseases and its effect on health related quality of life of people living with non-communicable diseases in Attanagalla Divisional Secretariat

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Introduction

People living with chronic non-communicable diseases (PLWNCD) are a vulnerable group needing uninterrupted treatment and follow up. During COVID-19 pandemic, essential NCD services were disrupted affecting their health related quality of life (HRQoL).

Objectives

To describe availability of essential services for PLWNCD and its effect on HRQoL during COVID-19 pandemic.

Methods

A descriptive cross sectional household survey was conducted in 2021, in 22 selected Grama Niladhari Divisions in Attanagalla Divisional Secretariat. Probability proportionate to population size cluster sampling method was used to recruit 440 eligible participants.

An interviewer administered pre-tested questionnaire on socio-demographics, availability of essential health services and WHOQoLBREF questionnaire were used by trained data collectors. Statistical analysis was done using SPSS version 21.

Results

Response rate was 95%(n=418). Majority 50.5% (n=211) females, and 37.6%(n=157) 61-70 years age. Of them 56.7%(n=237) had hypertension, 47.8%(n=200) diabetes mellitus, 15.1%(n=63) cardio-vascular disease 11.7%(n=49) chronic respiratory disease. Medical consultations were available for 85.2%(n=356), out-patient services for 80.9%(n=338), in-patient services for 31.1%(n=131), essential medicines for 86.4%(n=361), laboratory facilities for 71.8%(n=300). Of them 80.4% had access to 3 or more service components. Reasons for inability to obtain services: personal, forgetting, financial constraints. Overall HRQoL was higher among respondents who had good access to essential NCD service (p<0.05)

Conclusions

A moderate disruption in essential NCD services was observed. Importance given for regular treatment and follow up by PLWNCD was poor. Overall HRQoL was affected by unavailability of essential NCD services. Interventions required to emphasize the importance of regular treatment and follow up.

Key words: *Availability of essential services, HRQoL, People living with NCDs, COVID-19 pandemic*

PP048

Research protocol: identification of the cognitive domains of academic skills to screen specific learning disorders in primary school children in Sri Lanka

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Introduction
Specific learning disorders (SpLD) affects academic skills in reading, writing, and arithmetic. Resulting adverse outcomes are academic underachievement, social difficulties, limited career options, low self-esteem, and mental health problems.
Although, early screening for SpLDs at primary school as children acquire foundational academic skills is necessary, there are no screening tools available in Sri Lanka in native language.

Objectives
To identify the necessary cognitive domains to develop a tool to screen SpLDs in primary school children.

Methods
A Desk review was done which included a literature survey, an exploration of globally available SpLD tools, and interviewing experts in education and clinical fields. Characteristic features of SpLDs were identified by literature review and compared with the domains measured by subtests of globally available tools which were further supported by the opinions of the experts.

Results
Through a desk review, 21 cognitive domains representing reading, writing and arithmetic were identified. The reading domains were sight recognition, oral reading fluency, orthographic knowledge, reading comprehension, and sentence structure. The domains for written expression include alphabet writing fluency, spellings and vowel additions, and handwriting. Domains of arithmetic abilities were sequential ordering, identification of numbers, basic mathematical calculations, problem-solving, time concepts, numerical coding, mental math, and math facts. Domains that are common are attention, working memory, phonological processing, and orthographic processing.

Conclusions
This desk review of the qualitative survey identified 21 cognitive domains representing three foundational academic skills. Subtests that measure these domains can be devised to a SpLD screening tool appropriate for the age group.

Key words: *Learning Disorders, Dyslexia, Dysgraphia, Dyscalculia*

PP049
First co-infection of malaria and Hepatitis E diagnosed in Sri Lanka

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Introduction
Imported malaria cases continue to be reported in Sri Lanka. Similarly, hepatitis E is also considered a travel associated imported disease in Sri Lanka. This is a report of the first co-infection of malaria and hepatitis E in Sri Lanka.

Objectives
A 21-year-old European who visited Sri Lanka after a 2 months stay in India, was admitted to hospital with fever, vomiting, abdominal pain, and dark-coloured urine on the 4th day after his arrival. On examination, he had splenomegaly but no hepatomegaly. He had thrombocytopaenia; 89% neutrophils; 9% lymphocytes; elevated liver enzymes and hyperbilirubinaemia. Urine was positive for bile pigment.

Methods
Considering his travel history to India, he was tested for malaria. The rapid diagnostic test became positive for Plasmodium falciparum while microscopy showed P. falciparum ring stages with a parasite density of 120/μl. He was treated as for uncomplicated P. falciparum malaria with oral Artemisinin-based Combination Therapy. The patient became fever-free and blood smears became negative after 13 hours following 2 doses of antimalarials.

Results
However, his liver functions were further deranged with apparent jaundice (ALT: 250 U/L; AST: 175 U/L; ALP: 130 U/L; GGT: 179 U/L; total bilirubin: 10.65 mg/dL; direct bilirubin: 8.08 mg/dL; indirect bilirubin: 2.57 mg/dL). Further blood tests detected hepatitis E-specific IgM antibodies. He was treated with oral ursodiol but no specific antiviral was given. Following the completion of antimalarials, he was discharged from the hospital upon clinical recovery.

Conclusion
Clinicians should be vigilant on travel-associated co-infections in patients who are diagnosed with imported malaria.

Key words: *malaria, hepatitis E, co-infections*

PP050

Clinical and laboratory characteristics associated with death in a group of patients with moderate or severe COVID-19 at a tertiary care hospital in Sri Lanka

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Introduction
COVID-19 caused a massive burden to the health sector, in Sri Lanka.

Objectives
The objective of this study was to describe the clinical and laboratory characteristics associated with death in patients with moderate or severe COVID-19.

Methods
This descriptive cross-sectional study was carried out from November 2021-June 2022 at a Teaching Hospital in Colombo. A consecutive sampling of adults with moderate or severe COVID-19 was done. Data were collected from patient interviews and medical records.

Results
388 patients were studied. The mean age was 61.1 ± 14.7 years, and 56.4% were males. 39% died in hospital. Shortness of breath was the most common presenting complaint (89.4 %). 52.2% and 38.6% had fever and cough, respectively. Symptoms associated with death were fever (49.3% vs 27.7%, $p<0.001$), cough (64.2% vs 23.2%, $p<0.001$) and chest pain (70.5% vs 34.9%, $p < 0.001$). Other factors associated with death were male gender (62.1% vs 44.2%, $p=0.016$), age >60years (66.5 vs 10.1, $p<0.001$), diabetes (47.2% vs 23.7%, $p<0.001$), hypertension (61% vs 23.5, $p<0.001$), ischemic heart disease (78.6% vs 30.1%, $p<0.001$), COPD (90.0% vs 35.8%, $p<0.001$) and smoking (60.3% vs 34%, $p<0.001$). Vaccination status was not associated with death ($p=0.07$). Higher white cell count (13.6×10^9/L vs 10.3×10^9/L, $P<0.001$), higher CRP (135.7 vs 51.2, $p <0.001$), lower SP02 on admission (83% vs 90.5%, $p< 0.001$) and lower pH (7.29 vs 7.35, $p <0.001$) were associated with death.

Conclusion
Several clinical and laboratory parameters were associated with death, and they will help to identify patients who need closer monitoring and more intensive management.

Key words: *Risk Factors, Mortality, Covid Pneumonia,Vaccination*

PP051

The presence of strongyloidiasis and associated risk factors in patients undergoing treatment at the National Cancer Institute, Maharagama, Sri Lanka

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Introduction

Strongyloides stercoralis can cause severe disease in the immunocompromised. Without a proper gold-standard diagnostic technique, strongyloidiasis is scarcely studied both globally and locally.

Objectives

We aimed to estimate the prevalence of strongyloidiasis among immunocompromised adult patients and to identify risk factors.

Methods

This study was carried out between February to October 2022. A faecal sample and 2 ml of venous blood were collected from consented patients. Direct faecal smear, agar plate, Harada-Mori and Charcoal cultures were performed on the faecal samples. Qualitative Polymerase Chain Reaction (PCR) was performed on selected faecal samples using S. stercoralis targeting ITS1 region. Strongyloides IgG ELISA was carried out on the serum samples using DRG Strongyloides IgG ELISA kit.

Results

Collectively, 144 patients (males = 68, females = 76) provided blood/faecal sample or both. Relevant to strongyloidiasis-associated symptoms, some patients had diarrhoea (n=12) and eosinophilia (n=11). Some of them (n=74) had occupational or recreational exposure to soil as potential risk factors. Overall, 24 patients were positive for strongyloidiasis from one or more diagnostic method (5 PCR and 19 ELISA). There were zero culture or direct smear positives. There was no significant association between disease positivity with either of the clinical features or risk factors.

Conclusion

The prevalence of strongyloidiasis in patients with malignancies was 16.66%. Strongyloidiasis is existent in the immunocompromised in Sri Lanka even in the absence of suggestive clinical features or regular exposure to risk factors. Screening immunocompromised patients with sensitive techniques such as PCR for timely diagnosis and treatment is recommended.

PP053
Patient experience matters for improving healthcare services in Cutaneous Leishmaniasis in Rural Sri Lanka

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Introduction
Integrating the lessons learned from patient experience for improving healthcare services is paramount for better patient outcomes and reducing the burden on the healthcare system in managing neglected tropical diseases.

Objectives
We aimed to explore the patients' perspectives on the quality of healthcare services related to cutaneous leishmaniasis (CL) in Anuradhapura, Sri Lanka.

Methods
We conducted a qualitative study with CL patients selected through maximum variability sampling in three rural disease-endemic communities in Anuradhapura. Through a novel self-reporting patient experience reflection journal and in-depth interviews, we explored patient journeys, perceptions, and reflections. We conducted a thematic analysis on journal and interview transcripts.

Results
Thirty participants (18-75 years old) documented their experience in journals, and 25 participated in interviews. We identified three major themes describing the quality of healthcare services related to CL. 1) Accessibility-related factors, including distance and availability of public transport and direct and indirect costs attached to accessing the healthcare facility 2) Treatment-related factors, including long-term painful treatment procedure, perceived quality and side effects of treatment, waiting hours to get the treatment 3) Healthcare worker-related factors including lack of empathy and responsiveness, perceived clinical competency of medical officers in diagnosis and treatment, level of information provided to patients related to the disease, its severity and treatment procedures and lack of healthcare staff to handle a large number of patients.

Conclusion

Patients' perspectives are useful for identifying modifiable factors that affect the quality of healthcare in cutaneous leishmaniasis. Targeted organisational, and policy-level interventions addressing these factors would be propitious in establishing better patient-centred healthcare.

Key words: *neglected tropical diseases, qualitative research, healthcare access, policy*

PP054

Investigating the influence of metabolic syndrome on the antibody responses against SARS-CoV-2

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Introduction

Individuals with metabolic disease, diabetes, hypertension and obesity are at risk for development of severe disease in COVID-19. As some smaller studies have shown that those with metabolic disease (MD) have lower SARS-CoV-2 antibody levels following vaccination

Objectives

Therefore, we sought to investigate the antibody levels in those with MD and healthy individuals (HI) in Colombo, Sri Lanka.

Methods

SARS-CoV-2 ACE2 blocking antibodies (surrogate marker of Nabs) were measured by the surrogate virus neutralizing test and antibody responses against nucleocapsid (N), was measured by an in-house ELISA. Antibody levels against the receptor binding domain of BA.2 and BA.4/5 were measured by the haemagglutination test (HAT)) 135 with MD and 134 His who received the Sinopharm/BBIBP-CorV vaccine.

Results

ACE2 blocking antibodies level is significantly higher (p=0.03) in those with MD (median 98.8, IQR 97.1–99.2% of inhibition) compared to HI (median 98.5, IQR 92.7–99.1% of inhibition). 135 (85.2%) with MD and 65/134 (48.5%) HI had antibody levels above the cut off threshold for the N protein, while the N-protein specific antibody levels also being significantly higher (p<0.0001) in those with MD. 125/135 (92.6%) with MD and 110/134 (82.1%) HI had antibodies against BA.2 variant and 102/135 (75.6%) with MD and 98/134 (73.1%) HI, had antibodies against BA.4/5. There is no significant difference for HAT titres against BA.2 (p=0.36) and BA.4/5 (p=0.92) in those with MD and HI.

Conclusions

Therefore, investigation of the N antibodies effect on COVID-19 disease severity in MTS is more important in future to understand about disease pathogenesis.

Key words: *SARS-CoV-2, Antibodies, Metabolic syndrome, Sinopharm*

PP055
Seroprevalence of antibodies to the BA.2 and BA.4/BA.5 SARS-CoV-2 variants in the Colombo Municipal Council area, Sri Lanka

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Introduction

Sri Lanka has not experienced COVID-19 outbreaks for the last 6 months, despite circulation of different omicron sub-lineages. As reported numbers would not reflect the actual infect rates, we investigated seropositivity rates to some of the recent omicron variants in Colombo Municipal Council area in Sri Lanka.

Objectives

To determine the prevalence of antibodies to the receptor binding domain of variants in SARS-CoV-2.

Methods

382 individuals aged 5 to 80 years were randomly selected and antibodies to the receptor binding domain (RBD) of the omicron variants BA.2 and BA.4/BA.5 were assessed using a haemaglutinnation test (HAT). Based on previous assessment in our population, a HAT titre of 1:20 was considered as a positive and a titre of $\geq$1:40 was considered to associate with neutralization.

Results

the overall seropositivity rate for BA.2 was 85.60% (327/382) and for BA.4/BA.5 was 80.37% (307/382). 242 (63.35%) individuals had HAT titres associated with neutralization for BA.2, and 227 (59.42%) had HAT titres $\geq$ than 1:40 for BA.4/BA.5. 336 (87.96%) had received the Sinopharm (BBIBP-CorV) vaccine, while 18 (4.71%) had received Pfizer-BioNTech (BNT162b2) and 4 (1.05%) AZD1222 and while 24 (6.28%) were unvaccinated. In the 15- to 25-year-old age group, 34.4% were unvaccinated, 26.5% had received the BNT162b2 and 39.1% the Sinopharm. There were no significant differences, in HAT titres for either BA.2

(p=0.87), BA.4/BA.5 (p=0.18) between the unvaccinated and those who received different types of vaccines.

Conclusions
Individuals living in the area sampled appear to have high levels of antibodies to omicron sub-lineages, including unvaccinated individuals, which shows a high level of infection in the community.

Key words: *Omicron, vaccines, population immunity*

PP056
A preliminary screening of compounds from temperate zone plants for activity against Leishmania mexicana

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Introduction
Management of cutaneous leishmaniasis (CL) is challenging because of limited and suboptimal treatment options. Natural plant-derived products have proved to be an important source for drug discovery.

Objectives
We conducted preliminary screening of a library of 1130 compounds (from Phytoquest) purified from plants found in temperate zones to identify those able to kill Leishmania mexicana in vitro.

Methods
Screening was performed using L. mexicana axenic amastigotes. Compounds were tested at a concentration of 4μM, using a resazurin-based viability assay. Hits were defined as compounds reducing growth by <10% at 48 hours. Half maximal effective concentrations (EC50) were then determined for the hit compounds. Half maximal cytotoxic concentrations (CC50) were also determined using the human monocyte cell line THP-1 and the selectivity index (SI) was determined by comparison of activity in Leishmania and human cells (SI=CC50/EC50).

Results
A total of 21/1130 compounds inhibited parasite growth to <10%. EC50 and CC50 were estimated for 19 and 10 of hit compounds, respectively. Determined EC50s were <1μM for 6 compounds while others ranged between 1- 4.76 μM. SI was >1.0 for 4 compounds (100135, 100355, 100596, 101326) and >10 for one of these (100596). The CC50 was higher than the tested maximum concentration (16μM) in 5 compounds.

Conclusions

This preliminary study demonstrates the value of plant compounds as potential anti-leishmanial agents. Comprehensive investigation of hit compounds with high selective activity against L. mexicana is warranted.

Key words: *cutaneous leishmaniasis, drug discovery, plant compounds*

Poster Presentation Session 2

PP058

The financial impact of patients with visual impairment who were admitted for surgery; empirical study at National Eye Hospital-Sri Lanka

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Introduction

Visual impairment refers to all degrees of reduction in vision, causing significant limitation of visual capability resulting from disease, trauma, congenital or degenerative condition. Impaired vision has extensive social ramifications in terms of participation in society, and employment is more prone to get financial burdens.

Objective

To determine the financial impact of the in-ward patients with visual impairment at National eye hospital admitted for surgery.

Methodology

A descriptive cross-sectional study was conducted from 31st of May 2022 to 31st July 2022 among 427 samples of in-ward patients with visual impairment who were admitted to the surgery at the national eye hospital. A systematic sampling technique was used to collect the sample. A costing survey was adapted with economic specialists.

Results

Out of the participants, 80% were more than 65 years old. The majority were female (65% N=234. Median income was Rs. 20,000 to Rs. 30,000. Median direct cost; Rs.3750. Out of the direct cost a large proportion is paid as transport cost (Rs.2125). The median indirect cost was Rs.1950. 23.5% were falling into the catastrophic expenditure during the month of admission to the hospital. There was a statistically significant association found between income and expenditure (chi-square value=32.32, df=1, p<0.001) and transport cost with the expenditure (chi-square value=24.3, df=1, p<0.05) in the particular month.

Conclusions

In-ward patients with visual impairment who were admitted for surgery to the National eye hospital were impacted by financial burdens.

Key words: *Patients with visual impairment, Admitted for surgery, National eye Hospital*

PP060

Assessment of infrastructure facilities on healthcare waste management in Type A Base Hospital in Kalmunai region

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Introduction

Healthcare institutions are continuing to face diversified difficulties in order to improve their healthcare solid waste management at the institutional level and many initiatives taken by the Ministry of Health. Assessing infrastructure on healthcare solid waste management at an institutional level is one of the key factors in the proper implementation of waste management. The evidence generated will pave the way for the improvement of healthcare solid waste management in hospitals.

Objectives

The objective of this study was to assess infrastructure facilities on healthcare waste management in type A Base Hospital in Kalmunai region.

Methods

A descriptive cross-sectional study was conducted in all type A Base Hospitals (BHs) in Kalmunai Region. An observational checklist was used to collect data. Data was collected by trained pre-intern medical officers in February 2022. Data was analysed using Microsoft Excel 365.

Results

Availability of bins was more than 75% in 3 BHs which was scaled as satisfactory except for BH Sammanthurai. Separate storerooms for hazardous waste such as infectious, anatomical and sharp were available in all BHs. However, a separate storeroom for E-waste was only available in BH Akkaraipattu. Separate storerooms for food, garden and plastic waste were only not available at BH Sammanthurai. Overall, the availability of storerooms in all 3 BHs except BH Sammanthurai was satisfactory. Supportive facilities for waste management were satisfactory in 2 BHs. Overall, infrastructure facilities were satisfactory in 3 BHs except in BH Sammanthurai.

Conclusion

Infrastructure facilities of waste management in BHs in the Kalmunai region were satisfactory. However, making available all components of infrastructure facilities of waste management will be more efficient to implement solid waste management.

Key words: *Infrastructure, waste management, Base Hospitals*

PP061

Assessment of Knowledge on Use of Personal Protective Equipment among Health Staff engaged in COVID-19 Management in Selected Healthcare Institutions

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Introduction

The COVID-19 pandemic highlighted health system deficiencies regarding appropriate infection control processes, including the utilization of PPE by healthcare staff. Conversely, it provided a catalyst to critically examine current practices and embed improved practices through training programs.

Objectives

The objective was to assess the knowledge about the appropriate use of PPE among staff in 3 selected healthcare institutions, following COVID training programs.

Methods

A descriptive cross-sectional study was conducted. A self-administered, pilot-tested questionnaire was developed based on the national and international guidelines (1,2). Stratified random sampling was used to select a sample of 333 participants.

Results

The response rate was 59.2%. The majority of the respondents were female (62.7%), nursing officers (45.9%) and most (41.1%) had a diploma or higher diploma. Most participants were aware of and utilized current Ministry of Health (MoH) guidelines (72.2%) and online training programs (67.9%). The institutional training focal point, assigned by the institutional heads for coordinating COVID training, was the main method of accessing training programs and information. Although, the overall knowledge of the use of PPE was good (68.05%), almost 31.95% of respondents gave incorrect answers. In particular, staff were found to use more than the minimum level of PPE recommended in the MoH guidelines. There were significant differences depending on socio-demographic characteristics.

Conclusion

Overall, participants who regularly use PPE had better knowledge of current guidelines, but overused PPE. Encouraging greater compliance with guidelines for appropriate PPE use among health staff is important given existing resource constraints and to ensure equity of availability.

Key words: *COVID-19, Post Training Evaluation, Personal Protective Equipment*

PP062

Health effects and academic performance on students participating in online learning in basic sciences of a newly established medical faculty

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Introduction

The Faculty of Medicine, University of Moratuwa, established during the Covid-19 pandemic, was compelled to conduct teaching activities online for the first intake of students until their first bar examination. Online learning is known to be linked to several health issues.

Objectives

This study aims to explore the academic performance and perceived health effects related to online learning in the Faculty of Medicine, Moratuwa.

Methods

A descriptive cross-sectional study was conducted among all 104 first-intake students using an anonymous online self-administered questionnaire to explore health effects and academic performance after ethical clearance.

Results

82 students responded (response rate=78.85%). The majority participated from home using their own laptop (N=61,74.4%) and personal Wi-Fi (N=57,69.5%) and spent 5-10 hours daily for online academic activities (N=59,72%). The majority complained of related physical (N=71,86.6%), and psychological (N=67,81.7%) health issues: eye problems (N=57,69.5%), headache (N=39,47.6%), backache (N=36,43.9%), stress (N=38,46.3%) and concentration difficulties (N=37,45.1%). 84.1% (N=69) passed the first bar examination with the majority (52.4%, N=43) obtaining classes. There was a statistically significant positive association ($p<0.05$) using the chi-square test between physical and psychological health concerns with the average screen time spent on academic activities, but not with the academic performance. There was also no statistically significant association between screen time and academic performance.

Conclusion

The majority of students using online learning have related physical and psychological health issues which are positively associated with the screen time though not with academic performance. Designing online activities with less screen time may be considered as a strategy to minimise health effects related to online learning.

Key words: *Online learning, Academic performance, Health Effects, Basic sciences, Moratuwa University*

PP063

Factors associated with the feedback literacy of undergraduate clinical students of three medical faculties in Sri Lanka

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Introduction
Feedback is an inseparable part of medical education. Development of students' feedback literacy enables uptake and action based on feedback.

Objectives
Explore the factors associated with feedback literacy of undergraduate clinical students in three medical faculties in Sri Lanka.

Methods
Secondary analysis was performed on focus group discussion data collected for an exploratory study on feedback in undergraduate clinical teaching settings in Sri Lanka which also included observational and interview components. 46 students from the third to final year and 19 recent graduates of three medical schools in Sri Lanka took part in eight focus group discussions. Framework analysis was performed using a model of student feedback literacy as the theoretical framework.

Results
The two major themes found to have influenced students' feedback literacy were: difficulties in forming decisions for improvement based on feedback and difficulties in managing affect related to feedback. Students found it difficult to form judgements as they were novices and when they found variation among the teachers on the substance of feedback. Students found it easier to manage their emotional reactions to feedback when they perceived that the teachers cared about their improvement; with more experience with feedback as they progress through the years and when the emotional burden of feedback was not overwhelming.

Conclusions
Undergraduate students in Sri Lanka need support in making academic judgments regarding the feedback they receive. They attempt to accept and work on feedback if the providers cared for their improvement and the affective load of feedback is manageable.

Key words: *Effective feedback, clinical education, medical education*

PP064

Time management techniques of medical students of the University of Ruhuna and their impact on examination results

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Introduction
Time becomes a significant limiting factor for medical students. They have to balance time between clinical training in hospitals, community based training, lectures and teaching in the medical school and laboratories. Research shows that students who manage time well can excel in their studies.

Objectives
This study was conducted to find out the common time management strategies used by medical students and to find their impact on examination performance.

Methods
This was conducted as a descriptive cross-sectional study among fourth year students of the Faculty of Medicine, University of Ruhuna. Data was collected using a self-administered questionnaire as a google form and analyzed using SPSS. The association between different time management techniques and examination results was calculated via Chi-square method ($P < 0.05$)

Results
169 participated in this study. 135 had passed the 3rd MBBS (part11) in their first attempt. There was a significant association between four-time management strategies used by students and their examination results. These included 1) Tackling only small things initially 2) Joining a study group 2) Using a calendar to plan ahead and 4) setting deadlines and goals ($p < 0.05$). There was no association between other time management techniques and examination results.

Conclusions
Four specific time management methods used by medical students were found to have a significant impact on their examination results. These included tackling small things to initiate work, joining a study group, using a calendar to plan ahead and setting deadlines and goals.

Key words: *Time Managment, Exam Results, Medical Students*

PP065
Why physicians hesitate to do postgraduate studies; Self-perceived reasons, perceptions, and expectations of role stagnated medical officers in Anuradhapura, Sri Lanka; A qualitative study

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Introduction
Medical professionals are crucial in maintaining the country's healthcare. Although Sri Lanka has a relatively better healthcare system in the region, role stagnation (RS) can lower the quality of healthcare services. RS is the inability of advancing one's employment position.

Objectives
The purpose of this study is to describe self-perceived reasons, perceptions, and expectations of role stagnated medical officers (MO's).

Methods
We conducted a qualitative study at Teaching Hospital Anuradhapura, Sri Lanka, using in-depth interviews with MO's served more than 10 years. Data was saturated after 15 interviews. Following data transcription, inductive thematic analysis was performed.

Results
Environment, inspiration, family support, intrinsic factors, work-life balance, contentment, and self-reliance were the major themes favouring RS. University education of most role stagnated MO's in the sample was affected by the country's political instability during the years 1988/89, causing education plan failure owing to ambiguity. Inadequate socioeconomic stability was the most highlighted reason for not continuing their education. The absence of peer and family encouragement is a frequent concern. Thus, MO's put off studies to spend time with their families. The majority believed that delaying postgraduate studies was due to prioritizing family obligations. Currently, they have no specific future plans because they feel that their life goals are already achieved. In the long run, they feel that there are no regrets about not pursuing postgraduate degrees.

Conclusions
The instability of economic, political, and social circumstances limited the confidence and the desire for further studies, jeopardizing the postgraduate preference of MO's. Nevertheless, they are pleased with the outcome.

Key words: *Role stagnation, Sri Lanka, medical officer, Postgraduate studies*

PP066

Attitudes and Perceptions of Medical Students at Rajarata University of Sri Lanka towards Volunteering in Emergency Situations

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Introduction

Frequent healthcare emergencies place significant strain on healthcare systems, creating a need for additional volunteer support. It remains unclear if Sri Lankan medical students are willing to offer such support during emergency situations.

Objectives

To evaluate attitudes and perceptions regarding volunteering in healthcare-related emergencies, and to determine the factors affecting willingness to volunteer in these situations among medical undergraduates of Rajarata University of Sri Lanka (RUSL).

Methods

A descriptive cross-sectional study was conducted among medical undergraduates of RUSL. Data were collected using an online questionnaire and analyzed using descriptive statistics and Chi-square test.

Results

A total of 422 students responded (response rate-44.5%). Majority (86.3%, n=364) expressed willingness to volunteer in healthcare emergencies, mostly in natural disasters (89.1%, n=326) and infectious disease outbreaks (88.9%, n=313). Significant associations of willingness to volunteer were observed, with clinical exposure, previous volunteering experience, personal experience in disaster situations, and knowledge and experience in first-aid (p<0.05). Altruism (67.4%, n=288), personal interest in developing skills (61.8%, n=264) or confidence (55.3%, n=236), and sense of social obligation (44.7%, n=191) were the main motivating factors to volunteer. Self-perception of lack of knowledge (59.0%, n=252), skills (48.5%, n=207) or lack of confidence (36.5%, n=156), lack of information or opportunities (35.4%, n=151) were the main barriers in volunteering. Majority (97.0%, n=414) believed that medical students should be encouraged to volunteer in emergency situations.

Conclusions

Medical students demonstrate a high level of interest in volunteering during emergencies. Implementation of structured training programs in health-related disaster management can be beneficial in preparing students for such events.

Key words: *Health-related emergencies, Disaster management, Medical Undergraduates*

PP068

Socio-economic effects on informal caregivers of long-term hospitalized adult patients: A cross-sectional study

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Introduction
A significant proportion of patients are being treated in hospitals in the government sector in Sri Lanka. Informal caregivers play a major role in taking care of hospitalized surgical patients while facing physical, social, and psychological challenges.

Objectives
This study describes the socio-economic maladaptation of informal caregivers of long-term hospitalized adult patients.

Methods
A cross-sectional descriptive study was conducted among 202 informal caregivers of long-term hospitalized patients in a tertiary care hospital in Sri Lanka, using an interviewer-administered questionnaire. Sociodemographic assessment of both caregiver and care recipient, the health status of the care recipient, effects on social life, and economic aspect of informal caregiver were assessed.

Results
Most of the caregivers were married (n=164, 81.2%), first-degree relative of the care receiver (n=139, 68.8%), employed (n=115, 56.9%) and sole caregivers (n=130, 64.4%). Four out of 5 caregivers (n=181, 89.6%) showed moderate to severe socio-economic maladaptation. Increasing age (p=0.00), marital status (p=0.00) and sole caregiving (p=0.01) are significantly associated with the level of maladaptation.

Conclusion
Moderate to severe levels of maladaptation is present among a substantial number of informal caregivers of long-term hospitalized patients. Sole caregiving is one of the contributing factors and can be addressed by adequate formal caregivers appointed by health care authorities or voluntary services to minimize informal caregiver burnout.

Key words: *caregiver burnout, caretaker, maladaptation, Socio-economic*

PP069
National Medicines Regulatory Authority (NMRA) new pharmaceutical pricing policy: Effects of verification of importer declared cost insurance and freight (CIF) value

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Introduction
Sri Lanka had pricing policies based on CIF plus since 1968. In the past the declared CIF was not independently verified for determination of maximum retail price (MRP). A markup of 65% defined as the add ups between CIF and the MRP was also permitted.

Objectives
To determine the effects of the CIF verification plus 65% markup pricing mechanism implemented in 2021 on drug pricing and expenditure

Methods
A cross sectional descriptive study of 2009 medicinal products submitted by the market Authorization holder to the NMRA for pricing from April to December 2022 was conducted. The percentage reduction following CIF verification was calculated (requested minus determined MRP). From products showing a > 5% reduction, 50 medicines were selected to calculate total cost saving to the state using the volumes issued to the state sector in 2021. A literature review was undertaken to determine if a 65% markup was reasonable and affordable to the country.

Results
An MRP reduction of >5% was seen for 203 medicinal products following verification of CIF. In the selected 50 medicines, the reduction ranged from 6.94 -99.29% (median 53.12%). If the same volume of medicines issued in 2021 was purchased in 2022 the mean cost savings to the state would be LKR 415394314.00. The literature review revealed Sri Lanka markup as very high: western countries have a lower mark-up, around 4% to 25%, compared to Asian countries, up to 50%.

Conclusions
A pricing policy is mandatory for cost containment and CIF verification method is effective. However, the markup of 65% needs urgent review.

Key words: *pharmaceutical pricing,pharmaceutical price control, medicines cost, pharmaceutical markup*

PP070

Knowledge, attitudes, and beliefs about liver transplantation among caregivers of children with liver diseases; a single centre experience from Sri Lanka

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Introduction
Paediatric Liver transplantation (PLT) is evolving in Sri Lanka. There is no data documented related to caregivers' knowledge of PLT.

Objectives
To determine the knowledge, attitudes, and beliefs about liver transplantation (LT) among caregivers of children with liver diseases.

Methods
A descriptive cross-sectional study was conducted among the caregivers attending the paediatric liver clinic at Ragama. The calculated sample size was 186. Data were collected using an interviewer-administered questionnaire. Descriptive statistics with SPSS 27.0 were used for analysis. Ethical approval was obtained from the Faculty of Medicine, Ragama. Since there were no previous similar studies, as the tool, we used a newly designed, pre-tested questionnaire which included the basic facts about the knowledge of LT.

Results
Of 186 caregivers, the majority were mothers (n=107, 57%). A mixed religious background was noted with Buddhists, Catholics, Islam and Hindus being 80%, 11%, 7% and 2% respectively. Most were educated up to or above the GCE ordinary level (n=180, 97%). The majority (n=124, 68%) were from low-income families with a monthly income of less than 50,000 LKR. Almost half of the participants, 89 (47.8%) knew someone who had undergone an LT. Knowledge of having PLT within the country, living donation, diseased donation, blood group matching and life-long medications were accurate in 171 (91.9%), 170 (91%, 75 (40%), 172 (92%), 116 (62%) respectively. Regarding the beliefs and attitudes towards LT, 170 (91%) were willing to donate and 144 (77%) indicated to support LT. There were 32 (17%) who believed that liver diseases can be cured with alternative medicine and 103 (55%) believed being religious would result in better outcomes.

Conclusion
Knowledge of LT among caregivers is promising with a positive attitude. Some of their beliefs seem to be non-scientific.

Key words: *Knowledge, caregivers, liver transplantation, children, Sri Lanka*

PP071
Hepatic and renal status of paediatric patients with thalassaemia

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Introduction
Thalassaemia is a chronic disorder affecting many organ systems. Although cirrhosis is a well-recognised complication, sub-clinical hepatic and renal dysfunction in thalassaemia are poorly studied.

Objectives
We aimed to describe the hepatic and renal status and dysfunction of paediatric patients with thalassaemia.

Methods
A cross-sectional descriptive study was conducted at Kurunegala and Ragama Thalassaemia Centres during February and March 2023. All patients aged less than 16 years attending the thalassaemia centres were recruited. Data were collected using a data collection form by interviewing parents and perusal of clinical records and analysed using SPSS 27.0. Ethical approval was obtained from the Sri Lanka College of Paediatricians.

Results
Sixty-five patients (mean age-7.7; males-46%) were recruited. Of them 48(73%) had homozygous beta-thalassaemia and 17(26%) had HbE thalassaemia; 52(80%) were transfusion-dependent and 13(20%) were non-transfusion-dependent. Hepatomegaly and splenomegaly were found in 45(69%) and 30(46%), respectively. Regarding hepatic status, 34(52%) had high (>40IU/L) alanine transaminases, of which 8(12%) had >3-fold elevation of alanine transaminases. A higher proportion of children with HbE thalassaemia (71%) had elevated alanine transaminases compared to homozygous beta-thalassaemia (46%, $\chi2$=3.0, p=0.07). Also, a higher proportion of children on deferasirox (57%) had elevated alanine transaminases compared to those who were not on the drug (27%, $\chi2$=3.3, p=0.06). Four (5%) had <2+ proteinuria in urinalysis however, the urine protein: creatine ratio was normal in all.

Conclusion
High alanine transaminases were noted in over 50% of paediatric patients with thalassaemia. HbE thalassaemia type and use of deferasirox were associated with high alanine transaminase levels.

Key words: *Thalassaemia, Alanine transaminase, Deferasirox*

PP072
Knowledge, attitude and practices on universal micronutrient supplementation among mothers of infants in the Kurunegala District of Sri Lanka

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Introduction
Multiple micronutrient (MMN) supplementation programme was commenced to combat micronutrient deficiencies among children in Sri Lanka. However, its acceptance is not evaluated properly.

Objectives
To describe the knowledge, attitude and practices of MMN supplementations among mothers of infants aged 9-12 months in the Kurunegala district.

Methods
A cross-sectional descriptive study was conducted in four randomly selected Medical Officer of Health (MOH) areas in Kurunegala district from January to March 2023. All mothers of infants aged 9-12 months attending the well-baby clinic were recruited. Data were collected using an interviewer-administered questionnaire and analyzed using SPSS 22.0.

Results
A total of 395 children (males-49.4%) were recruited. A majority (223[56.5%]) of mothers stated that their children had shown less acceptance of food after mixing MMN. 299(75%) noted that it reduced the food taste and 175(44.3%) said that it gave a bad smell upon mixing. 385(97.5%) mothers knew the correct dosage of MMN and 376(95.2%) knew the correct frequency. However, only 219(55.4%) were aware of the correct duration that MMN should be given and only 285(72.2%) had continued MMN when the child is sick. 376(95.2%) thought that MMN is beneficial to their child but only 276(69.9%) were aware on its benefits. 134(33.9%) mothers said that adequate information was not provided when receiving MMN.

Conclusion
Most mothers perceived that children showed less acceptance of food after mixing MMN into the food. MMN had alyered the taste of food and introduced a bad smell to food. One-third of mothers stated that adequate information was not provided when receiving MMN.

Key words: *Multiple micronutrients; Acceptability; Kurunegala*

PP073
Epidemiological and clinical features of snakebites in children

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Introduction
Snakebites in children is a common health problem and the envenoming effects are more in children because of higher ratio of injected venom to the body mass. The most snakebite studies in Sri Lanka are focused on adults.

Objectives
The objectives of this study were to describe epidemiological and clinical features of snakebites in children.

Methods
A prospective observational study was conducted for children admitted with snakebites to Teaching Hospital, Ratnapura. Data collection was done for 27 months commencing from December 2020.

Results
There were 66 children from which 59 (89%) were known snakebites (hump-nosed viper-40 (61%), Russell's viper-6 (9%), Ceylon krait-2 (3%) and non-venomous-9 (14%). Forty-two (64%) were males. Their age ranged from 5 months to 14 years (mean 7.6 years). Majority were bitten on lower limbs (43;65%) at daytime [6AM-5.59PM] (36;55%) in home gardens (26;39%). Most patients were admitted within 1-5 hours from bite (38;58%). Native treatment was given to 7 (10.6%) and hospital stay was 3 days (IQR 2-5). Forty-four (67%) applied first aid methods including washing (41;62%) and ligation (18;27%).
Local envenoming was observed in 62 (94%) including local pain in 58 (88%), swelling in 52 (79%), blistering in 12 (18%), necrosis in 12(18%) and lymphadenopathy in 10 (15%). Fourteen (21%) had systemic envenoming including coagulopathy in 11 (17%) and neuroparalysis in 5 (8%). Antivenom was administered in 10 (15%) children of which 4 (40%) developed allergic reactions. Surgical interventions were needed in 13 (20%) and fasciotomy was done in 4 (6%).

Conclusions
Hump-nosed viper is the commonest cause of snakebites in children.

Key words: *hump-nosed pit viper, Hypnale, paediatric, snakebites, Sri Lanka*

PP074

Clinical and EEG characteristics of children with first episode of childhood epilepsy with centrotemporal spikes (CECTS) in a tertiary care paediatric neurology centre in Sri Lanka

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Introduction
Childhood Epilepsy with Centro-temporal Spikes(CECTS) is one of the commonest childhood epileptic syndromes.

Objectives
To describe the clinical, electroencephalographic(EEG) characteristics and psychometric function of children with first episode of CECTS presented to the Lady Ridgeway Hospital.

Methods
A retrospective cross-sectional study was carried out at three paediatric neurology units, Lady Ridgeway Hospital, Colombo. Children with first episode of CECTS were recruited by screening all digitalized EEGs performed in 2019. Clinical details were obtained by contacting the parent. The child's current psychological stress level was identified using the validated version of Strength and Difficulties Questionnaire(SDQ). EEGs were analyzed using Nihon Kohden neurofax EEG-2100 and NicoletOne EEG systems. Data was analyzed using SPSS 20.

Results
A total of 4756 EEGs were screened and 44 children were identified. Among them 54.5% were males. Mean age was 7.5(SD=2.6) years. Mean age of seizure onset was 7.7(SD=2.8) years. Family history of epilepsy was found in 6.8% and 9.1% had a history of febrile seizures.
Hemiclonic focal seizures (68.2%), unilateral facial sensory-motor seizures (54.5%), speech arrest (47.7%), hypersalivation (34.1%) and oro-pharyngo-laryngeal seizures(22.7%) were the key manifestations; 65% had seizures in sleep. EEG findings were typical spikes and waves in 93.2% and, 52% were in Centro-temporal region. One or more 'abnormal' scores were identified among 26(59%) in emotional, conduct, hyperactivity and peer problem subscales. Ten parents (22.7%) reported having learning deficits and 32% concerned on impact of epilepsy.

Conclusions
Majority of children were males and the main EEG finding was typical centrotemporal spikes and waves. Around half of the children had emotional and or behavioural problems.

Key words: *Childhood Epilepsy, Centro-temporal Spikes, Clinical, EEG, Sri Lanka*

PP075

Pre-hospital exposures to antibiotics among children presenting with fever in medical ward settings of a tertiary care hospital of Sri Lanka: a cross-sectional study

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Introduction
The biggest global health concern of the twenty-first century is currently being presented by the increasing usage of antibiotics and their indiscriminate use. We conducted a study on prehospital antibiotic use among children presenting with fever in medical ward settings.

Objectives
to assess prevalence of prehospital antibiotic use and to describe the used antibiotics and their source.

Methods
We carried out a cross-sectional study at medical wards of tertiary care hospital of Sri Lanka between December 2022 to February 2023. Children less than 14 years of age were selected by using systematic random sampling. An interviewer-administered questionnaire was used to collect the data from caregivers. SPSS was used to analyze the data. Descriptive and inferential statistics were applied. p-value <0.05 was considered for statistical significance.

Results
170 (53%) of 321 children with fever in this study used antibiotics prior to hospital admission, 88.8% of which were empiric prescriptions by a doctor, while 10.6% were prescriptions with a clear indication and 0.5 % on a self-medication basis. The most commonly used antibiotics were amoxicillin 23/106 (21.6%), co-amoxiclav 18/106 (16.9%), and azithromycin 18/106 (16.9%). The major source of antibiotics was from a pharmacy or hospital on a prescription 169/170 (99%). There were no significant differences between the proportion of children with pre-hospital antibiotic use and without antibiotic use (p = 0.289).

Conclusions
Improper use of antibiotics for paediatric febrile illness is prevalent in the study setting, typically due to empiric prescriptions by a doctor. Health providers' practice needs to be addressed.

Key words: *Children, Fever, Antibiotics*

PP076

The psychosocial well-being of overweight and obese children attending a specialized clinic for weight-related problems in Colombo, Sri Lanka

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Introduction
Obese children are viewed by society as being lazy, greedy and lacking in self-discipline, which is likely to have a negative impact on their psychosocial well-being. With the rapid rise in obesity among children it is important to address this problem.

Objectives
To assess the psycho-social wellbeing of obese children attending a weight management clinic

Methods
A descriptive cross-sectional study was conducted among overweight and obese 10-17-year-olds attending the "NutriFit" clinic at UHKDU, Borelasgamuwa, Sri Lanka. Ethical clearance was obtained from the ERC of the Faculty of Medicine, Colombo. Demographic details were collected and psychosocial well-being was assessed using the Strengths and Difficulties Questionnaire (SDQ).

Results
124 children (78 males: 46 females) with a mean age of 13.1 +/- 1.69 years participated. 66 (53.2%) were overweight and 58 (46.8%) obese. The majority had an abnormal total difficulties score, emotional problems, peer problems and hyperactivity. Bully victimization was associated with negative psychosocial well-being, showing a strong relationship with the total difficulties score (p<0.001) and scores for each sub-scales.

Conclusions
Obesity has a negative impact on the psycho-social well-being for children and is strongly associated with weight-related bullying. Regular assessment of the psychosocial status and support is essential to mitigate the negative consequences and improve the psychosocial well-being of these children.

Key words: *Obesity, psychosocial well-being, bully victimization, child*

PP077

Factors leading to febrile convulsions in children presenting with fever; a case-control study from a children's hospital, Colombo, Sri Lanka

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Introduction

Febrile seizures are the commonest form of convulsions in children. Although the long-lasting effects are rare, they produce extreme parental concern. Not all children with fever develop convulsions.

Objectives

The aim of this study is to determine the factors leading to convulsions in children with fever.

Methods

A hospital-based case-control study (ratio 37:74) was conducted among children aged 5 months – 5 years. Cases were children admitted to any medical ward in Lady Ridgeway Hospital Colombo with febrile convulsion/s. Controls were children admitted to the same ward, with fever (documented > 38C) but no convulsions. Data was collected with an interviewer-administered questionnaire. Patient, family and environmental factors were compared between the two groups using the Odds Ratio and Independent t-test.

Results

The cases had more males (70.2% Vs 52.7%) and lower mean age (33.03 vs 39.47 months) compared to controls, but these differences were not statistically significant (p > 0.05). Interestingly, the peak temperature level had no association with the development of convulsions too. Low Hb level, maternal GDM, maternal PIH or anaemia during pregnancy and positive family history have increased the risk of febrile convulsions (p < 0.05)

Conclusions

The study concluded that both the macronutrient and micronutrient status of the child, maternal morbidities and mode of delivery as well as positive family history has a significant bearing on the development of febrile convulsions. Hence, preventive actions should be targeted accordingly.

Key words: *Febrile Seizures, micronutrient and macronutrient status, anaemia*

PP078

Griscelli syndrome with Downs syndrome complicated with trabeculated bladder and deranged renal functions

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Introduction

Griscelli syndrome is a rare autosomal recessive disorder with pigmentary dilution, neurologic problems and immunodeficiency.
In this article, we report two weeks old neonate who was found to have hair, eye and skin pigmentary dilution and Down syndrome with trabeculated bladder complicated with deranged renal functions.

Objectives
To differentiate conditions with pigmentary dilution and evaluate for complications.

Methods
None.

Results
A one-day-old neonate who wnon-consanguineous parents was admitted following respiratory distress.

He had silvery grey scalp hair, pale skin complexion, and subtle facial dysmorphism with hypotonia. No family members were affected. The baby had hypopigmented fundi, iris and light microscopy of the scalp hair shaft revealed large irregular clumps of pigments. Karyotyping is compatible with Down syndrome.

Due to the deranged renal functions we investigated further. MCUG revealed an abnormal bladder with a trabeculated wall and multiple diverticula. No MCUG evidence of VUR or bladder outflow obstruction. Cystoscopy revealed no evidence of PUV.

Conclusions
This has several differential diagnoses. But microscopy of the hair shaft showed classic feature of Griscelli syndrome. Type 2 Griscelli was excluded since no haematological features of HLH, mostly it suggests type 3 Griscelli syndrome. Since parents could not afford to pay for the whole exome sequencing test, karyotyping was done and it revealed Down syndrome due to non-dysjunction. (47 XY+21)

Trabeculated bladder with multiple diverticula warrants regular follow up and deranged renal functions were due to interstitial nephritis which needed Calcium Resonium as Hyperkalaemia was persisting.

The multidisciplinary team approach was taken at a very early age and long-term follow-up is mandatory.

Key words: *Pigmentary dilution, silvery grey hair, hyperkalemia, trabeculated bladder*

PP079
Prevalence and associated factors of hypothermia among neonates admitted to the premature baby unit (PBU) of District General Hospital Nawalapitiya: a retrospective analysis

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Introduction
Hypothermia is defined as core body temperature being below 36.5°C. Though hypothermia is commonly associated with neonatal morbidity and mortality, relevant literature is limited in Sri Lanka.

Objectives

This study aimed to identify the prevalence and associated factors of hypothermia among neonates admitted to PBU of District General Hospital Nawalapitiya.

Methods

Patient records of all neonates admitted to PBU from January 2021 to February 2022 were included by consecutive sampling. The axillary temperature on admission and clinical data were extracted.

Results

Among 407 neonates, the mean admission age was 5.2 days. The majority were males (52.6%) with a corrected gestational age of 37 weeks or above on admission (64%), and a mean weight of 2.44 kg. The prevalence of hypothermia was 38.6% (95%CI:33.9–43.4). Maternal factors like teenage pregnancy (crude odds ratio(OR):5.6, 95%CI:1.5-20.6), multiple pregnancies (OR:6.6, 95%CI:3.0-14.2), hypertension during pregnancy (OR:3.0, 95%CI:1.8-5.3), premature rupture of membranes (OR:2.6, 95%CI:1.5-4.8) and lower-segment caesarian sections (OR:1.5, 95%CI:1.01-2.3); neonatal factors like low birth weight (OR:2.0, 95%CI:1.3-3.0), prematurity (OR:6.4, 95%CI:4.1-10.0) and low APGAR score (OR: 3.6, 95%CI:2.0-5.5) had statistically significant associations with hypothermia. Neonates with hypothermia had 5.1 times (95%CI:1.8-14.5) increased odds of mortality and 4.3 times (95%CI:2.5-7.4) increased odds of receiving ventilatory support compared to normothermic neonates. Hypothermia also showed statistically significant associations with infant respiratory distress syndrome, metabolic acidosis and neonatal jaundice. Hypothermia showed no significant association with the month/season of admission.

Conclusion

Nearly two out of five neonates admitted to PBU were hypothermic. There were significant maternal and neonatal risk factors to be addressed. Hypothermia on admission may lead to serious neonatal morbidity and mortality.

Key words: *Hypothermia, Neonates, Prevalence*

PP080

Experiences and challenges faced by 13-14-year-old children with severe asthma during lung function testing

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Introduction
Adolescence is a decisive period for gender-dependent lung function. Problems encountered by adolescents when undergoing lung function assessment are not adequately studied.

Objectives
To assess the experience, challenges faced, and perspectives of 13–14-year-old children and their parents when undergoing spirometry and impulse oscillometry (IOS).

Methods
We conducted participant observation and in-depth interviews with fifteen children aged 13-14 years having severe asthma. The participants were selected using the pre viously validated International Study of Asthma and Allergies in Childhood (ISAAC) questionnaire. Both parents and children had no prior idea or knowledge about lung function testing. Data were analysed using thematic analysis.

Results
Data obtained from the participants selected by purposive sampling were categorised under three themes; comprehension of instructions, undergoing the investigation, and ideas and perspectives of both parents and children. Demonstrations and synchronised execution of the respiratory manoeuvres by the instructor were better understood than verbal instructions. Most participants (n=7) stated that the test was exhausting. Some participants found it difficult to exhale forcefully in the first second (n=5) and to maintain the forced exhalation for 6 seconds (n=6). Interestingly, participants found it easier when standing rather than sitting. The participants did not find the procedure and the instrument to be intimidating.

Conclusions
Demonstrations and synchronised breathing with the adolescent during training significantly improve performance.

Key words: *spirometry, adolescents, challenges*

PP081
Challenges in conducting spirometry in adolescents

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Introduction
Lung function testing with spirometry is the gold-standard technique to diagnose asthma. However, lung function testing in adolescents is challenging for both the tested and the instructor.

Objectives

To assess the challenges and obstacles the trainee instructors face when conducting lung function assessments in adolescents.

Methods

We conducted a qualitative study with two components: participant observation and in-depth interviews. There were three trainee instructors and a total of 09 interviews were conducted. Trainee instructors had adequate knowledge in instructing children to perform spirometry and impulse oscillometry but no prior practical experience. Children aged 13-14 years attending government schools in the Anuradhapura Municipal Council area and with severe asthma were selected using the International Study of Asthma and Allergies in Childhood (ISAAC) questionnaire. We conducted a thematic analysis on the field notes and interview transcripts.

Results

We categorised our findings into three themes: instructions given to the child, the difficulty levels of each test, and the fatigue of the trainee instructor. The most difficult component was getting the participant to exhale forcefully in the first second. Participants required repetitive instructions before testing to understand the steps. The instructor's self-confidence visibly improved the quality of instruction execution by the participant. According to instructors, the children performed well when they redid the test after giving bronchodilators because of the prior practice.

Conclusions

Performing spirometry can be a difficult task for those tested and the instructors. Using demonstrations and animations could be useful in improving performance, reducing the number of attempts and minimising exhaustion of instructors.

Key words: *spirometry, lung function assessment training, adolescents*

PP082
Parental knowledge and attitudes about child sexual abuse and their practices of sex education in a Sri Lankan setting

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Introduction

Parents are an important group in delivering sexual education to children. They have ample opportunity and the best knowledge in tailoring content to their child's level of maturity. Literature shows that parents' knowledge of sexual abuse and prevention is inadequate, which hinders their capacity to educate their children.

Objectives

To identify the parental knowledge and attitudes about child sexual abuse and their practices of sex education.

Methods

We carried out a cross-sectional descriptive study on 385 parents presenting to the out-patients department (OPD) of the Colombo South Teaching Hospital (CSTH). Parental knowledge, attitudes and practices were measured using a specifically designed questionnaire with a Cronbach's α of 0.743. A cut-off score of 24.5 for the knowledge component was calculated, with the sensitivity of 0.992 and specificity of 1. Parental attitudes towards child sexual abuse (CSA) and their practices of sex education were assessed using 6 questions each.

Results

Knowledge of CSA was unsatisfactory in 67.3% (n=259). Parents who were younger, had a higher income and had only one child, had significantly higher knowledge (p<0.01). Almost half (48.1%) believed that parents should feel ashamed if their child was sexually abused and one-third (34.5%) believed if a child was sexually abused, it is a disgrace to the family. There was a positive relationship between knowledge and attitudes about CSA. Majority (99.7%) agreed that children should receive sex education to help them protect themselves, with half (56.4 %,) believing that this should start during the preschool period.

Conclusion

Parental knowledge of CSA is poor and stigmatizing attitudes towards victims and families were apparent.

Key words: *parental knowledge, sexual abuse, sex education*

PP084
Community Readiness for alcohol prevention in rural Sri Lanka

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Introduction

Harmful consumption of alcohol is a significant social and medical problem in rural Sri Lanka. Although the government has taken steps at the population level to reduce harm, more efforts are needed at the community level. In a community, people often do not mobilize until they recognize it as a problem. Community readiness is a model to guide communities and researchers to better understand the process of change. The community readiness tool is widely used but has not been adapted to the Sri Lankan setting.

Objectives

Our objective for the study was to contextually adapt the community readiness tool for rural Sri Lankan settings.

Methods

We employed a cognitive and cultural adaption method that was undertaken in four phases: translation, expert validation, cognitive interviews, and back translation.

Results

Three rounds of cognitive interviews were carried out with 14 participants. Four issues were identified: lexical, translation, computational, and logical. Although the initial questions were well translated, several terms did not transmit the intended meaning of the question. The complexity of some of the questions increased non-response and response time. These could lead to low-quality data if not corrected.

Conclusion

Setting up the construct and face validity of the tool is important during contextual adaptation. Comprehension and retrieval of information are important components to consider when designing a survey. Social and cultural background, language and familiarity with formal language were identified as potential barriers in this setting. This highlights the importance of cognitive interviews after the initial translation.

Key words: *Community readiness*

PP085

The relationship between musculoskeletal pain and the level of stress among final year students of University of Colombo

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Introduction

Musculoskeletal(MSK) pain leads to severe, chronic disabilities and stress has many adverse effects. The association between musculoskeletal pain and stress levels has not been deeply explored in Sri Lankan context.

Objectives

Hence, this study aimed to determine the relationship between musculoskeletal pain and the level of stress among final year students of the University of Colombo.

Methods

A descriptive cross-sectional study was conducted among 300 final year students of University of Colombo using convenience sampling method. MSK pain and level of stress were assessed using self-administered Standardised Nordic Musculoskeletal Questionnaire and Modified Students Life Stress Inventory, respectively. Data was analysed by descriptive statistics, Chi square test and Pearson correlation test in SPSS.V.21.

Results

The prevalence of MSK pain was higher among females and statistically significant(p=0.03). The 12-month and 7 day point prevalence of MSK pain were 75.66% and 61.60%, respectively.

Neck(38.36%) and upper back(31.91%) were most common affected sites in 12 month and 7 day point prevalence, respectively. Prevalence of stress was higher among female students and 35.10% of students were within the high stress category.There was a significant relationship (p<0.05) between the level of stress and MSK pain in the neck, shoulders, lower back and hips. A negative correlation (r=-0.21), although not statistically significant (p=0.76) was observed between the level of stress and elbow MSK pain.

Conclusion
The prevalence of musculoskeletal pain(43.67%) among final year students was found to be high. There was a significant positive correlation between MSK pain in neck, shoulders, lower back, hips and stress level.

Key words: *musculoskeletal pain, stress, university students*

PP086
Perinatal paternal depression in a sub-urban area in Sri Lanka

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Introduction
Maternal perinatal depression (MPND) has become a widely recognized public health concern. Unlike maternal perinatal depression, mental health issues of fathers in the perinatal period continue to receive significantly less public attention.

Objectives
To describe the prevalence and associated factors of paternal perinatal depression (PPND) in a suburban area in Sri Lanka.

Methods
An analytical cross-sectional study was carried out among 120 males whose wives were in the perinatal period, in a selected sub-urban area in Sri Lanka. The sample was selected using stratified sampling and data collection was via an interviewer-administered questionnaire using Edinburg Post-Partum Depression Scale (EPDS). The SPSS software was used for data analysis. Prevalence of PPND and association with socio-demographic factors, psychological and behavioural factors and pregnancy-related factors were determined using appropriate statistical analysis.

Results
The mean EPDS score was 6.31(SD=2.49) and 11.7 % (n=14) reported EPDS scores more than nine. None had severe depression according to EDPS. There was a statistically significant association between paternal age, marital dissatisfaction, family support, smoking and having other children and PPND.

Conclusion

PPND is observed to have a similar prevalence to MPND. Awareness creation on PPND, identification of the despondent and development of interventions should be encouraged.

Key words: *Paternal perinatal depression, antepartum period, postpartum period, prevalence, Sri Lanka*

PP087

Validation of the Sinhala version of Internalized Homonegativity scale in males who identify as gay and bisexual in Sri Lanka

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Introduction

Internalized Homonegativity (IH) refers to the internalization of stigma associated with homosexuality in gay, lesbian and bisexual individuals. IH is a known risk factor for psychological and sexual-health problems.

Objectives

Due to the unavailability of validated instruments to study this neglected topic in Sri Lanka, this study aimed to validate a scale measuring IH in Sinhala.

Methods

Standard procedures for questionnaire translation were followed in translating the 26-item Internalized Homonegativity Scale (IHS) into Sinhala. The translated IHS was administered to 138 gay/bisexual men in Sri Lanka using an online survey. Confirmatory factor analyses were performed to test several empirically- and theoretically-based factor structures, while examining fit indices. The Rosenberg self-esteem scale was administered to test the hypothesized negative correlation between IH and self-esteem.

Results

The original four-factor structure of IHS did not show a satisfactory model fit. One factor was removed as suggested by some authors due to its irrelevance to the IH construct. The best-fitting model was observed for a three-factor structure (viz. "Personal comfort with a gay identity", "Social comfort with gay men" and "Public identification as gay") with eight items. Internal consistency of the 8-item scale was good (alpha = 0.78), with acceptable internal consistencies for the three subscales (alpha= 0.61-0.63). IH showed a significant negative correlation with self-esteem (r=-0.42, p<0.001), further supporting the construct validity.

Conclusions

This study provided evidence of good construct validity and internal reliability of an 8-item short form of the Sinhala IHS to be used among gay/bisexual men in Sri Lanka.

Key words: *sexual orientation, homophobia, stigma, self-esteem, psychometrics*

PP088
Strength and barriers of Family Centered Approach in the management of children with Autism Spectrum Disorder (ASD) as perceived by Primary Caregivers

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Introduction
Family-centred approach to intervention is the mainstay of management of children with ASD in Sri Lanka.

Objectives
This study was done to determine the perception of primary caregivers on strengths and barriers of parent-mediated interventions, under three domains; patient, caregiver and service delivery

Methods
A descriptive cross-sectional study was carried out among 103 primary caregivers of children under 6 years diagnosed with ASD, attending outpatient clinics in three tertiary care hospitals in the Western Province. An interviewer-administered questionnaire was utilized for data collection. Student's t-test at a 95% confidence interval was used to evaluate associations.

Results
Extended family support (n=102; 99.02%) and prior demonstration of activities to be carried out (n=102; 99.02%) were identified by most as strengths of family centred approach to intervention. Suffering from comorbidities (n=69; 66.99%) and the distance from residence to the clinic (n=71; 68.93%) were the barriers identified by most. The parent training programme was the service offered to most (n=88;85.44%). Support routes (emotional, social or financial) were the least offered service (n=48;46.60%) despite being considered a facilitator by the majority (n=102;99.02%). Significant associations were observed between the education level of caregivers and perception of parental training (p=0.01) and having extended family support and perception on full-time jobs (p=0.05).

Conclusions
A multitude of perceived strengths and barriers emphasize the need for timely strategies for the successful implementation of a family-centered approach to intervention in Sri Lanka.

Key words: *Autism Spectrum Disorder, Family Centered Approach, Strengths, Barriers, Sri Lanka*

PP089

Prevalence and Associated Factors of Burnout among Doctors Working in Hospitals with COVID-19 Treatment Units in Anuradhapura District, Sri Lanka during the COVID-19 Pandemic: A Descriptive Cross-Sectional Study

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Introduction
The COVID-19 pandemic led to an enormous burden on the already compromised health system, particularly in remote areas of the country. Evaluation of the rate of burnout among doctors working in COVID-19 units is important to understand the extent of the issue and for planning interventions.

Objectives
To estimate the prevalence and associated factors of burnout among doctors working in hospitals with COVID-19 treatment units in Anuradhapura district.

Methods
A cross-sectional descriptive study was conducted among doctors working in hospitals with COVID-19 treatment units in Anuradhapura District of Sri Lanka during the third wave of the pandemic. The calculated sample size was 383. Self-administered data collection form was designed as an online and printed forms. Burnout was assessed using the Professional Fulfilment Index. Prevalence rates and associated factors for burnout were evaluated, and the binary logistic regression method was used to identify the risk factors of burnout.

Results
The prevalence of burnout was 41.6% (95%CI:36.6-46.7). Binary logistic regression analysis showed lack of professional fulfilment (OR=2.79,95%CI:1.69-4.65,p=0.0001), excessive workload (OR=3.87,95%CI:2.30-6.62,p=0.0000), lack of psychological support from services (OR=1.86,95%CI:1.07-3.30,p=0.0300), lack of psychological support from family (OR=1.95,95%CI:1.14-3.37,p=0.0159), being an intern house officer (OR=4.06,95%CI:1.27-13.45,p=0.0193), and less number of years of work experience (OR=3.52,95%CI:1.54-8.62,p=0.0040) as risk factors for developing burnout in this study population.

Conclusions
The prevalence of burnout was high among doctors working in hospitals with COVID-19 units in rural Sri Lanka. Addressing this important issue is vital to improving the quality of life of doctors and the services they rendered during any crisis situation such as the COVID-19 pandemic.

Key words: *burnout, medical officers, stress, professional fulfilment index, pandemic*

PP090

The association between negative experiences during childhood and social anxiety disorder: A cross-sectional study among Sri Lankan university students

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Introduction
Social Anxiety Disorder (SAD) demonstrates early-onset, chronic course, and impairment in all social spheres.

Objectives
The study objective was to explore the association between negative childhood experiences among a university student sample that indicated a high prevalence of SAD.

Methods
A cross-sectional study was conducted among 1137 students from five state universities. The Liebowitz Social Anxiety Scale – Sinhala version, and a correlates questionnaire including a culturally adapted Adverse Childhood Events Questionnaire and contextually appropriate parenting-related questions, were used as instruments. The analysis included chi-square tests for independence, spearman's r correlations, and binary logistic regressions.

Results
Within the sample, 52.2% were female, and 66% were between 21-23 years. All faculties were represented with 27.5% from engineering. 32.2% of participants were first years. Bivariate analyses identified that being an eyewitness towards violence towards mother, feeling unsafe, feeling mistreated by family, experiencing physical abuse, experiencing sexual abuse, experiencing emotional abuse, experiencing parental dissatisfaction, and parental overcontrol to be significantly ($p<0.05$) associated with SAD. Continuous variables of Parent dissatisfaction (AOR=1.07, 95% CI 1.01-1.13, $p<0.05$), parent overcontrol (AOR=1.08, 95% CI 1.02-1.15, $p<0.01$) and experiences of emotional abuse (AOR=1.31, 95%CI 1.11-1.54, $p=0.001$) remained independently associated with SAD on regression analysis.

Conclusions
Findings from this study corroborate the literature on the association between childhood experiences and parenting-related factors and SAD. The findings also highlight for the first time that Sri Lankan university students are no exception. An urgent need for awareness and prevention of adverse experiences within the family context, and early intervention to prevent the development of SAD are crucial.

Key words: *anxiety disorders, parenting styles, risk factors, childhood adversity, south asia*

PP091

Relationship between musculoskeletal pain and health related quality of life among nurses in a selected government teaching hospital

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Introduction
Musculoskeletal pain (MSP) is a common medical problem among nurses, who often experience a heavy workload for long hours which may contribute to MSP.

Objectives
This study was to determine the relationship between MSP and health related quality of life (HRQOL) among nurses in a selected government hospital.

Methods
An analytical cross-sectional study, using a web-based self-administered questionnaires was carried out on 120 nurses with work experience >1 year after obtaining ethics approval. Sampling method was convenience sampling method. To evaluate MSP and HRQOL, Standard Nordic Musculoskeletal Questionnaire and Short Form Health Survey were used respectively. Relationship between MSP and HRQOL was analyzed using the t-test.

Results
Mean age and working hours were 34.76 ± 9.80 years and 47 ± 26.66 hours respectively. Majority (80.83%) experienced MSP with most common sites affected in past year being lower back (45%), neck (44.2%) and ankles/feet (30.8%). There were high scores for all domains of HRQOL (dHRQOL): physical functioning(PF) [$77.17(\pm 19.89)$], role-limitation due to physical health(RL_PH) [$66.88(\pm 37.26)$], role-limitation due to emotional problems(RL_EP) [$67.22(\pm 40.76)$], energy/fatigue(EF) [$51.08(\pm 13.13)$], emotional wellbeing(EW) [$55.73(\pm 13.41)$], social functioning(SF) [$66.77(\pm 19.88)$], bodily pain(BP) [$62.98(\pm 18.53)$], and general health(GH) [$60.00(\pm 18.53)$]. Significant associations ($p<0.05$) were most common with pain in lower back (affecting 7 dHRQOL), upper back (affecting 5 dHRQOL) and neck and shoulders (affecting 4 dHRQOL). BD and PF were the most affected dHRQOL, each significantly associated with pain in 5 regions.

Conclusion
Though the HRQOL scores are high, a significant association was observed between regional MSP and multiple dHRQOL. Preventing and treating pain is likely to improve HRQOL in this population.

Key words: *Musculoskeletal pain, Health related quality of life, Nurses*

PP092

Body image and its relationship with prosthetic satisfaction and duration of use among below-knee amputees in Sri Lanka

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Introduction
A Below knee amputation is a surgical procedure to remove part of the limb below the knee level. This affects body image causing poor social skills, anxiety and distracted behaviour. A prosthesis is an artificial replacement for the missing body part.

Objectives
This study was conducted to determine the interconnection of prosthetic satisfaction (aesthetic, functional and total) and body image disturbance among Sri Lankan unilateral below knee amputees also considering the duration of prosthesis use.

Methods
This descriptive cross-sectional study interviewed 223 unilateral below knee amputees with validated versions of The Amputee Body Image Scale (ABIS) and Trinity Amputation and Prosthesis Experiences Scale (TAPES- R).

Results
The majority were males (70%), married (69%) and had a transtibial amputation (54%). The mean age was 47.6 ($\pm$14.9). The mean ABIS score was 45.39 ($\pm$16.67). Body image disturbance (BID) was significantly correlated with total satisfaction (TS), functional satisfaction (FS) and aesthetic satisfaction (AS); (r= -0.357, -0.308, -0.365 consecutively). Daily hours of prosthesis use significantly correlated with TS (r=0.201), FS (r=0.244), and BID (r= -0.174), but not AS (r= 0.088). The length of prosthetic use significantly correlated with TS (r=0.160) and FS (r=0.187).

Conclusion
There was a strong relationship between the BID and both aesthetic and functional prosthetic satisfaction implying that prosthetic satisfaction reduces BID. To gain prosthetic satisfaction both aesthetic and functional quality were expected. Longer time with prosthesis increasing prosthetic satisfaction suggests tailoring the rehabilitation/patient education to wear the prosthesis for lengthier durations for better prosthetic satisfaction and body image.

Key words: *Below Knee Amputees; Prosthetic Satisfaction; Body Image Disturbance, ABIS, TAPES-R*

PP093

The influence of shoe heel height on lower limb joint pain and functional disabilities among female office workers in selected office settings in the Colombo District.

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Introduction

In modern society, high-heel shoes are preferred by most women to enhance their attractiveness. However, many of those who wear high-heeled shoes for long period complains of many musculoskeletal problems especially those related to their legs.

Objectives

To determine the association between shoe heels height with lower limb joint pain and functional disabilities among female office workers in selected office settings in the Colombo district.

Methods

An analytical cross-sectional study using 105 female office workers aged between 25-55 years, in private organizations was selected using a convenient sampling method. The numerical pain rating scale (NRS) and Lower Extremity Functional scale (LEFS) were used to measure hip, knee, and ankle joint pain and functional disabilities in the lower limb. The collected data were analyzed using descriptive statistics and a one-way ANOVA test on SPSS version 25.0 software.

Results

There was significantly increased mean ($\pm$ SD) values of hip pain (4.269 $\pm$ 0.9616), knee pain (5.692 $\pm$ 1.2254) and ankle pain (4.769 $\pm$ 1.6807) severities among women wearing 3cm or above heels. In this group, the mean ($\pm$ SD) value of LEFS (23.808 $\pm$ 9.6417) was also the lowest, indicating the highest lower limb functional disabilities. There were significant differences between the three groups of footwear heel height with hip pain (F=37.005, p= 0.000), knee pain (F=31.237, P=0.000) and ankle pain (F=19.802, P=0.000) severities and LEFS score (F=62.659, P= 0.000).

Conclusion

The prevalence of pain, pain severity in lower limb joints and lower limb functional disabilities increase with footwear heel height.

Key words: *Shoe heel height, joint pain, functional disability*

PP094

External breast prostheses use, its influencing factors and impact on the quality of life among postmastectomy patients in Sri Lanka

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Introduction
External breast prostheses (EBP) have been identified for improving the quality of life (QOL) following mastectomy in other countries. Studies have also been conducted on the QOL of postmastectomy women in Sri Lanka, but not in relation to their EBP use or its impact.

Objectives
To describe EBP use, its influencing factors and the impact on QOL among cancer patients in Sri Lanka.

Methods
A cross-sectional study was conducted among non-metastasized biopsy-proven breast cancer patients who have undergone mastectomy at least six months ago. They were recruited systematically from outpatient clinics at Apeksha Hospital Maharagama. An interviewer-administered questionnaire obtained data on socio-demographic characteristics, EBP use and QOL assessed under several domains using a valid tool. The influencing factors were assessed using the Chi-square test at 0.05 significance.

Results
The sample (N=188) compromised current EBP users (64.5%), former users (4.1%) and never users (31.4%). The commonest reason for using EBP was to mimic the natural breast, while that against EBP use was poor awareness, accessibility and being embarrassed to use EBP. Young (66.7% vs. 64.1%), single (83.3% vs. 61.2%), employed (76.2% vs. 62%) and wealthy (60% vs. 75%) women were more likely to use EBP than others, although these differences were not significant (p>0.05). Compared to previous/never users, a higher proportion of current EBP users were satisfied with their QOL- overall and in individual domains (p<0.01).

Conclusion
Knowledge of EBP and an uninterrupted EBP supply should be integrated into postmastectomy rehabilitation programs to improve their QOL.

Key words: *External Breast Prostheses, Quality of Life, Breast Cancer, National Cancer Control Program*

PP096

Evaluation of health-related quality of life among patients before and after total hip arthroplasty in a selected hospital in Sri Lanka

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Introduction

Total hip arthroplasty (THA) is a widely performed orthopaedic surgery to alleviate pain and restore motion.

Objectives

This study determines the health-related quality of life (HRQOL) and the prevalence of patients who received physiotherapy before and one month after total hip arthroplasty.

Methods

A prospective observational short follow-up study was conducted with 52 patients who waiting for THA. Generic HRQOL was assessed using the 36-Item Short-Form Survey (SF-36). Disease-specific HRQOL was measured using the Modified Harris Hip Score (MHHS). The prevalence of patients who received physiotherapy was gathered using an interviewer-administered questionnaire. Paired sample t-test was performed to compare HRQOL before and one month after total hip arthroplasty.

Results

The mean age of participants was 59.00 ± 5.47 years. There were significant improvements ($P < 0.05$) in all SF-36 and MHHS parameters following the surgery. General health, bodily pain, vitality, social functioning, and mental health subscales except for physical functioning, role limitation due to physical and emotional functioning of generic HRQOL were improved. Pain and activities of daily living subscales except for gait of disease-specific HRQOL were improved. The total MHHS score was poor in both pre-and post-operatives, but there was a significant improvement in postoperative group. Pre-operatively, no patients were reported to have had exposure to physiotherapy and all patients (100%) had physiotherapy sessions following THA.

Conclusion

Overall HRQOL improved in most of the assessed aspects over a short period of time. Necessary steps to introduce pre-operative physiotherapy and supervise post-operative physiotherapy exercises to improve HRQOL are suggested.

Key words: *Total hip arthroplasty, Osteoarthritis, SF-36, MHHS*

PP097

Effectiveness of mobile health applications in physiotherapy management/rehabilitation outcomes compared to other traditional methods: a systematic review and meta-analysis

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Introduction
The use of mobile health applications (MHAs) in rehabilitation is growing, and MHAs may be the future of healthcare services due to the increasing use of smartphones and ease of use.

Objectives
To determine the effectiveness of MHAs in physiotherapy management/rehabilitation outcomes compared to other traditional methods (TM).

Methods
Various electronic databases were searched to identify studies published in journals and conference proceedings between 2000 and 2022 that evaluated the use of MHAs by physiotherapists in comparison to TM in different medical conditions. The search was limited to randomized control trials (RCT), non-RCT, quasi-experimental trials, before and after study designs, and cohort studies in English. Outcome variables were self-reported (SR) exercise adherence, pain, and health-related quality of life (HRQOL).

Results
The literature search found 3481 articles, 80 of which were eligible for full-text review after removing duplications and title/abstract screening. Of these, 10 articles, including 878participants were selected. All of the studies (n=10,100%) were RCTs, utilizing stand-alone mobile apps as the intervention method and the duration of the studies varied between 4 weeks and 1 year. The random effect analysis comparing IG with the control group revealed a significant pooled standard mean difference of 0.75(95%CI:0.41-1.09; $p<0.0001$) for SR exercise adherence and 0.31(95%CI:0.09-0.53; p=0.005) for HRQOL; while no significant difference was observed for pain -0.34(95%CI: -0.96-0.27; p=0.28).

Conclusion
The current study suggests that MHAs are effective in improving SR exercise adherence and HRQOL in physiotherapy management/rehabilitation compared to TM. To establish this with greater certainty, further high-quality studies are needed in this area.

Key words: *Telemedicine, Health related Quality of Life, Physiotherapy, Mobile Health Applications*

PP098

The prevalence and associations of foot arch abnormalities with musculoskeletal pain of the trunk and lower limb joints in obese adults attending selected hospital clinics

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Introduction
Increased mechanical load due to extra weight in the obese adds more strain on lower limb joints and the spine, increasing the risk of musculoskeletal (MSK) pain and foot arch abnormalities.

Objectives
This study investigated the prevalence and associations of foot arch abnormalities with MSK pain in the trunk and lower limb joints among a cohort of obese patients.

Methods
A cross-sectional study was conducted on 85 obese (BMI>=27.5kg/m2) male and female adult (20-65 years) patients attending the selected clinics in the National Hospital Sri Lanka. Foot arch abnormalities (flat foot and high-arch foot) were assessed using static foot arch index. MSK pain in the trunk and lower limb joints in the previous week was assessed using the Nordic MSK questionnaire. Associations of foot arch abnormalities with MSK pain were explored using binary logistic regression adjusted for age and sex and reported using odds ratio (OR) and 95% confidence interval (CI).

Results
The mean age was 63.74±9.43 years; 88.2% were females. The mean BMI was 32.28±3.23 kg/m2. The prevalence of flat foot was 61.2%; 20.0% had a high arch foot. Both abnormalities were common on the left side (flat foot: 51.8% and high-arch foot: 14.1%). The most common MSK pain was knee pain (47.1%), followed by back pain (45.9%). The left high-arch foot was associated with increased odds of having back pain (OR=5.67; 95% CI 1.21-26.67) compared to the normal foot.

Conclusions
Foot arch abnormalities are common in obese patients and are associated with back pain.

Key words: *foot arch index, flat foot ,back pain, high arched foot*

PP099

Prevalence and types of musculoskeletal pain and fatigue among chronic cancer patients in selected cancer types attending to Cancer Institute, Maharagama

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Introduction

Cancer is an increasing problem around the world and in Sri Lanka. Pain and fatigue are most common symptoms which have negative influence on functional abilities and quality of life of cancer patients. Different cancer types can change this influence, and little is known in the Sri Lankan context.

Objectives

The aim of the study was to determine the prevalence and types of musculoskeletal pain and fatigue among different chronic cancer patients.

Methods

A descriptive cross-sectional study was with 89 participants, attending National Cancer Institute, Sri Lanka was conducted. The sample was consisted of 75 females and 14 males with the mean age of 48 years (SD ± 5.967). Brief pain inventory-short form was used assess the pain, Brief fatigue inventory to assess fatigue and Borg-CR10 scale was used to assess the level of exertion during four different activities. Data was analysed using the SPSS version 23.0. Chi square test and one-way ANOVA test were used in the analysis.

Results

This study found 60.7% point prevalence and 75.2% past six months' prevalence of musculoskeletal pain. Fatigue was 92.1 % among the participants with 37.1% mild, 44.9% moderate and 10.1% in severe fatigue level. Pain was significantly associated with cancer types (P=0.03) with Breast cancer having the highest value.

Conclusions

Musculoskeletal pain and fatigue are major drawbacks among chronic cancer patients to live an active life.

Key words: *Prevalence, Musculoskeletal pain, Fatigue, Chronic Cancer*

PP100
Anthropometric knee profile measurements on articulator surface of femur among Sri Lankan population.

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Introduction

In Sri Lankan context there are no published data for articulator surface measurements for knee joints. Forensic, Anatomical, Archaeological, Bio-medical engineering, development of knee

prosthesis beneficial with anthropometrics. Digital Vernier Caliper (measuring range 0-140mm, resolution 0.02mm, accuracy ±0.01mm) used to obtain measurements.

Objectives
The aim of this study, was to provide standard anthropometrics for the distal femur in Sri Lankan context.

Methods
Dried adult Femurs (42 male and 28 female) were analysed for the measurements of Medial condyle Antero-Postero Length (MAP), Anteroposterior length of intercondylar area (AP), Medial-Lateral Length (ML), Aspect Ratio (ML/AP) and Epi Condylar breadth (EB). Sex Dimorphism Ratio (SDR) were calculated for dry femurs.

Results
The mean values for male; MAP 24.95(±2.22), AP 25.47(±2.27), ML 20.82(±2.56), Aspect Ratio 0.82(±0.11) and EB 7.68(±0.43). The mean values for female; MAP 24.95(±3.08), AP 25.47(±3.16), ML 20.82(±2.28), Aspect Ratio 0.82(±0.18) and EB 7.68(±0.37). SDR values are MAP 107.74, AP 107.12, ML 99.04, and EB 106.55.

Conclusions
The majority of SDR values lie above 100. Therefore, a difference between male and female values can be observed. Findings offer assistance to develop knee joint prostheses with culture-particular values, fitting for the Sri Lankan setting and pave the pathway to the studies on the above-mentioned fields in the local and international context. Sex determination is a crucial element in the creation of a biological profile since it offers information for identities.

Key words: *Femur, Biological profile, Anthropometrics*

PP123

Outcome of Radical Nephrectomy with Inferior Vena Cava (IVC) Thrombectomy, a multicentre case series

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Introduction
Renal Cell Carcinoma (RCC) with Inferior Vena Cava (IVC) involvement is relatively rare with an incidence of 3-15% of cases. IVC tumour removal is technically challenging with high mortality of 5-18%.

5-year survival of such patients is about 40 - 60%. In Sri Lanka there is minimal data about IVC thrombectomy. Therefore this study will aid in filling the lacking local data.

Objectives
The aim of our study is to assess the clinical presentation, patient characteristics and histology subtypes, perioperative complications.

Methods
This is a descriptive retrospective study. Data of consecutive patients undergoing radical nephrectomy and IVC tumour removal were collected from January 2021 to February 2023. Basic demographics, imaging, histopathological findings, surgical interventions and outcomes were considered. Level of extension of RCC was categorized into level 0 (in renal vein only), level 1 (< 2 cm in IVC), level 2 (> 2cm, but below the liver), level 3 (in retro hepatic IVC), level 4 (above the diaphragm).

Results
15 included. The mean age was 58 years (44-79). 8 (53.3%) were males. 9 (60%) were left-sided tumors. Histology revealed 13 (86.6%) clear cell carcinoma.. 6 (40%) level 1 tumours, 5 (33.3%) level 2 tumours, 2 (13.3%) level 3 tumours and 2 (13.3%) level 4 tumours. At the mean follow-up of 251 days (30-730), 13(86.6%) were alive, 1 (6.6%) died in the perioperative period

Conclusion
The 251-day survival in this series is 86.6%. This is satisfactory. However, further follow-up and a larger series are needed to come to further conclusion.
Key words: *Renal Cell Cancer, IVC Thrombectomy, Radical Nephrectomy, Sri Lanka*

PP171
Morbidity Profiles and hidden burden of comorbidity among patients attending primary care facilities in Anuradhapura district of Sri Lanka

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Introduction
Although Sri Lanka records a 58-million approximated annual Primary Care Encounters (PCE), the unavailability of Primary Care Surveillance (PCS) causes significant under-estimation of primary care morbidity.

Objectives
This study aimed to identify the morbidity profiles of primary care attendees in Anuradhapura district (AD), Sri Lanka

Methods
A cross-sectional observational study was conducted using the "Patient Morbidity Profile Collector (PMPC)", a paper-based data collection format. A total of 1668 PMPCs were collected from six public (n=971) and five private (n=697) sector primary care facilities in the AD.

Results
A total of 189 Reasons for Encounter (RFE) were identified. Upper respiratory tract infections (n=157, 9.4%) were the commonest acute RFE and skin (n=300, 18%) was the most affected system. Osteoarthritis of the knee (22%, n=) was the top PCE with chronic course across all age groups. Comorbidity was reported among 19% of PCE (n=178) above 35 years of age and diabetes mellitus-heart disease was the commonest combination (n=96, 54%). Comorbidity was reported among 34% (n=105) of PCE above 60 years of age (60YA), and the commonest combination was dyslipidaemia-hypertension (n=84, 80%). Three or more comorbidities were recorded among 12% of PCE above 60YA (n=36) and the diabetes-hypertension-dyslipidaemia combination was reported the most (64%, n=23).

Conclusions
The burden of non-communicable diseases and comorbidity were observed markedly in the high-risk age groups of the study population. Health authorities should introduce PCS as a major opportunity to screen NCDs and health promotion in the population.

Key words: *chronic diseases, comorbidity, primary care, non-communicable diseases, morbidity*

PP101
Prevalence and associated factors of knee osteoarthritis in the Western province of Sri Lanka; an epidemiological survey

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Introduction
Knee osteoarthritis (KOA) is a leading cause of pain and disability worldwide. However, the prevalence of KOA in Sri Lanka is yet unknown.

Objectives
To assess the prevalence and determinants of KOA in Sri Lanka.

Methods
The data source for this study was the Sri Lankan Non-Communicable Diseases Survey. This survey included 1285 of randomly selected adults (>20 years) from the Western Province of Sri Lanka. KOA was diagnosed using the American College of Rheumatology criteria.

Associations between KOA, socio-demographic features and obesity were examined by logistic regression analysis. Comparisons were made between KOA and non-KOA groups for health-related quality of life (HRQOL) scores (RAND-36 questionnaire) and MET scores (International Physical Activity Questionnaire).

Results
The majority were female (63.4%) with a mean age of 50(±14.9) years. The KOA prevalence was 5.5%. Overweight prevalence was the highest (32.8%;422/1285) followed by normal (24.4%;313/1285), obese (18%;231/1285), and risk-to-overweight (ROW) (17.7%;228/1285). Medians of MET score was 1386 MET-min/week, sleeping hours per day was seven, and working hours of the employed group was 45.

The age groups (51-65years/20-35years=26.9; 66-80years/20-35years=20.3), sex (Female/male=2.98), and obesity (ROW/underweight=5.5; obese/OW=1.6) were significantly (p<0.01) associated with increased odds of KOA. Domains of general health and physical function of HRQOL were poorer in KOA than those without KOA (P<0.01).

Conclusion
The prevalence of KOA in Sri Lanka was comparable to other regional cohorts. The associations identified namely, ageing, sex, obesity and reduced physical function increase the risk of KOA as previous studies in other regions.

Key words: *determinants of osteoarthritis, knee osteoarthritis, prevalence*

PP102
Frozen shoulder following cardiac surgery; Sri Lankan experience

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Introduction
A high incidence of frozen shoulder (FS), of up to 33% is reported in patients undergoing cardiac surgery, which is tenfold higher than in the normal population. Early diagnosis and treatment may prevent progression to chronic, treatment-resistant disease.

Objectives
To study the incidence and associations of acute FS among a cohort of Sri Lankans undergoing coronary artery bypass graft, valve replacement or both cardiac surgeries.

Methods
An observational study was conducted in selected private-sector hospitals in Colombo. Sample size computed was 142 (110 males, mean age 60.28 yrs.) and convenience sampling technique was used where consecutive eligible patients were selected until the required sample size was

fulfilled. Patients were recruited to the study while in hospital and reviewed at the two-week and three-month routine follow-up visits. Interviewer administered questionnaire was used to document the demographic data and risk factor associations. Patients presenting with pain and restricted movement of the shoulder joint with positive limitation in lateral rotation, abduction, and medial rotation (LAM test) were considered as having frozen shoulders.

Results
Of the142 patients 40.1%(n=57) developed shoulder pain 38.7%(n=55) were LAM test positive. 38.7% (n=55) with both LAM test positivity and shoulder pain were confirmed as having FS. The highest number of patients developing FS were from the 50-60year age group (n=25). Of the associations, dyslipidaemia and ischemic heart disease had significant correlation with the diagnosis of FS (p value<0.05).

Conclusions
More than one third of patients undergoing cardiac surgery developed FS. Ishaemic heat disease and dyslipidaemia showed significant correlation.

Key words: *Frozen shoulder , cardiac surgery, adhesive capsulitis*

PP103
Quality of life in patients attending rheumatology clinics at NHSL, diagnosed with inflammatory arthritic conditions

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Introduction
Inflammatory arthritic conditions are a significant health burden worldwide which can result in excruciating pain, severe impairment, and a lower quality of life, as well as greater healthcare costs and lost productivity.

Objectives
To assess the Quality of life(QoL) of patients attending rheumatology clinics at NHSL who are diagnosed with inflammatory arthritic conditions.

Methods
A cross-sectional study was conducted on 120 patients at the rheumatology clinics at NHSL diagnosed with inflammatory arthritic conditions namely Rheumatoid arthritis, Ankylosis spondylitis, Systemic lupus erythematosus, Psoriatic arthritis and Systemic sclerosis, who were recruited after random sampling of the clinic attendees fulfilling inclusion and exclusion criteria. Socio-demographic and disease details were collected by a data collection tool. Original English and Sinhala validated SF-36 questionnaire was used to assess the health-related QoL(HRQoL). Data were analysed using the SPSS software version 26.

Results

The study population (n=120) had a female preponderance (79.2% female vs 20.8% male) and a mean age of 47.17 years. The majority (70%) of participants had Rheumatoid arthritis.SF-36 scores obtained on HRQoL related to overall physical health and mental health were 64.5(SD=10.6) and 57.1(SD=18.0) respectively. HRQoL was best in Role physical (mean = 75.9, SD = 17.8) and worst in Social Functioning (mean = 49.1, SD=19.4). For all 8 scales, no significant association was observed with QoL and socio-demographic factors (gender, age , breadwinner, ethnicity) in the study population at a significance $p<0.05$.

Conclusions

Mental health was affected more than physical health in the study population. To improve QoL compliance, proper follow-up, counselling, recreational and social activities can be advised.

Key words: *QoL, SF-36, inflammatory arthritis*

PP105
Association between of BMI and balance on ankle sprain among Club Netball players in Colombo

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Introduction

There are many factors that influence ankle sprains in netball players. Finding these elements may facilitate more effective training for performance improvement. We hypothesized that balance and BMI are significant determinants of ankle sprain in netball.

Objectives

This study aimed to identify the differences in BMI and balance in non-injured and injured ankle sprain among club netball players.

Methods

An analytic cross-sectional study was performed using 84 netball players in selected clubs in the Colombo District. The study consisted of two groups: injured and non-injured, with 42 participants in each category. Balance was taken using a modified star excursion balance test. Statistical analysis was done with an independent sample t-test.

Results

The mean age of the injured group was 15.67 years (SD+/-2.19) and the non-injured group was 16.07 years (SD+/-1.98). There was a significant difference in the modified Star excursion balance test of the right-side anterior direction (injured: non-injured = 104.79±14.75: 111.90±10.49, p=0.013). There was a significant difference in the modified star excursion balance test of the right-side posterolateral direction (injured: non-injured = 102.8±14.38:

110.65±17.00, p=0.025) and modified star excursion balance test of the left-side posterolateral direction (injured: non-injured = 102.63±16.26: 111.82±15.77, p=0.010). There was no significant difference in BMI among injured and non-injured groups (p=0.515).

Conclusion

There was a significant difference between the modified star excursion balance test right anterior direction and both posterolateral direction among injured and non-injured netball players. But there was no significant difference between the modified star excursion balance test left anterior direction, both posteromedial directions and, BMI among injured and non-injured groups.

Key words: *mSEBT, BMI, Ankle sprain*

PP106

Exercise behaviour and perceptive barriers for exercises among adults in five different occupation groups in Anuradhapura Municipal Council area

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Introduction

Exercise is known to improve health and prevent chronic diseases, while physical inactivity has been associated with adverse outcomes.

Objectives

This study aimed to investigate the exercise behaviour and perceived barriers to exercise among adults from five different occupational groups in the Anuradhapura Municipal Council area.

Methods

A convenience sample of 635 participants, including teachers (n=134), nurses (n=129), farmers (n=112), housewives (n=139), and undergraduates (n=129), completed a pre-tested questionnaire on exercise behaviour and perceived barriers to exercise. Data were analysed using SPSS software. Ethical clearance was obtained from the Ethics Review Committee, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka.

Results

Less than 5 individuals in each group reported engaging in daily exercise, while the majority did not engage in regular exercise. Over 75% of participants in each group, except male undergraduates, were categorized as non-exercisers. Main perceptive barriers for exercising were lack of facilities and lack of time. Further, female undergraduates reported less interest in exercising compared to other leisure time activities.

Conclusions

The majority of adults in the Anuradhapura Municipal Council area, across various occupational groups, do not engage in regular exercise, primarily due to perceived barriers related to limited facilities and time. Interventions aimed at addressing these barriers could help promote exercise behaviour and improve overall health outcomes in this population.

Key words: *Perceptive barriers, exercises, occupational groups*

PP107

Relationship between body mass index and agility of female undergraduates in Faculty of Medicine University of Colombo

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Introduction

The need to prevent excessive weight gain/obesity, and increase the levels of physical activity among university students is a currently discussed topic. Physical activity and physical fitness enhance academic performance. Agility is a component of motor-related physical fitness defined as the ability to maintain and control correct body position with the change of velocity or direction in response to a stimulus. Previous studies have shown that obese/overweight youth have a low level of physical fitness compared to normal-weight peers. No studies were found on the relationship between BMI and agility among Sri Lankan youth.

Objectives

We looked at the relationship between agility, height, weight and BMI among female undergraduates in the Faculty of Medicine, University of Colombo.

Methods

An analytical cross-sectional study was conducted on ninety-six (n=96) female undergraduates of the Faculty of Medicine, Colombo by random sampling. Agility was measured using 4*10m shuttle run test. Other related information was gathered using a self-administered questionnaire. Data were analyzed using descriptive statistics and Pearson correlation tests.

Results

The mean age of the sample was 23.69 ± 1.348 years; the mean BMI was 21.25 ± 3.87 kg/m2. The mean 4*10m shuttle run test completion time was 15.91 ± 1.62s. The Pearson correlation value between height and agility was $r=0.050$, $p=0.630$, $p>0.05$, weight and agility was $r=0.394$, $p=0.000$, $p<0.01$, BMI and agility was 0.396 with sig. (2-tailed) value 0.000, $p<0.01$.

Conclusion

There was a moderately significant correlation between BMI and agility, and weight and agility. No significant relationship was identified between height and agility.

Key words: *Weight, Height, Fitness, BMI, Agility*

PP108

Association of quadriceps angle and strength of hip abductors on spinal mobility among female, obese Faculty of Allied Health Sciences (FAHS) undergraduates of Sir John Kotelawala Defence University (KDU)

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Introduction
Obesity is a growing concern worldwide, with associated health issues including reduced spinal mobility and decreased health-related quality of life.

Objectives
The objective of the current study was to assess the effect of quadriceps angle and hip abductor muscle strength on spinal mobility among obese female undergraduates of FAHS KDU.

Methods
The descriptive cross-sectional case-control study was conducted with 100 female participants (50 obese and 50 normal BMI) aged between 18 – 40 years at FAHS, KDU. Data were obtained through interviewer-administered assessment form and measurements were taken as quadriceps angle (QA), hip abductor muscle strength, lumbar spinal flexion using a standard goniometer, hand-held digital dynamometer and Schober's test (using measuring tape) respectively. Both lumbar spinal extension and lateral flexion were measured by standard goniometer.

Results
The obesity prevalence in the present study was 18.3%. Spinal mobility did not show any significant difference between both groups ($p > 0.05$). The mean QA (190) was higher in the obese group with a statistically significant difference between the two groups ($p < 0.05$). There was a significant association ($p < 0.05$) between the QA and lumbar extension in the obese group. It showed a significant difference ($p < 0.05$) between left and right abductor muscle strength between the two groups.

Conclusion
Obesity prevalence was relatively low (18.3%) among female undergraduates of FAHS, KDU. The lumbar spinal mobility did not differ between the Obese and normal BMI groups. However, QA and bilateral abductor muscle strength were associated with obesity.

Key words: *Spinal mobility, obesity, quadriceps angle, hip abductor muscle strength*

PP110

Effectiveness of the interventions to enable people to involve the aerobics/ yoga regularly: Systematic review

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Introduction

Aerobics and yoga play a pro-vital role in the prevention and management of non-communicable diseases and subsequently improve the quality of life, thus, engaging these exercises within the home environment by everyone regularly is very crucial

Objectives

To systematically review the effectiveness of Yoga and aerobics interventions carried out at home environment

Methods

PubMed, Google Scholar, and Web of Science were searched up to December 2022 and Cochrane risk-of-bias tool was used by three independent reviewers to mitigate the bias. PRISMA method was used to conduct and report the review

Results

Twelve studies (ten randomized control trials, 1105 participants; two quasi-experimental, 210 participants) were included. Participant's ages ranged from 20 to 65 years and all groups had positive health outcomes with a low dropout rate (<2%). The common exercise regimen was 20- 50 minutes/day, 3 to 5 days/week, and 12 to 24 weeks with moderate or vigorous intensity. Middle age and older adults engaged in more yoga practices, and the effect size is moderately high (d=1.3) among the group which was supervised or observed during the intervention. An exercise calendar or activity book is maintained (eight studies) for record keeping. High-intensity and lesser-time sessions were carried out by young people.

Conclusions

Home-based, yoga/aerobic interventions were effective compared to no treatment, and supervision or observation increase the effect size. A standardized exercise regimen for each category of people directs the way to achieve maximum health benefits and accordingly, people will continue it.

Key words: *Yoga, aerobics, PRISMA method, randomized control trial*

PP111

Comparison of Physical fitness in young male rugby and football players in Kotelawala Defence University (KDU)

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Introduction

Physical fitness plays a major role in determining a player's athletic performance, perhaps especially in the games of rugby and football. It is essential for implementing specific coaching, and strength and conditioning programs for rugby and football players.

Objectives

The aim of the study was to compare physical fitness characteristics in young male rugby and football players at Kotelawala Defence University, Sri Lanka.

Methods

The descriptive cross-sectional study was conducted with Male Rugby (15) and Football players (15) aged between 20 to 25 years in KDU, Sri Lanka during the pre-competition season. The 30 participants were assessed and tested for their Body composition, Muscular strength, Muscular endurance, Cardiorespiratory endurance, Agility, and Speed.

Results

Body composition, muscular strength, and muscular endurance significantly differed ($p<0.05$) between rugby and football players. It was identified that aerobic fitness was higher in rugby players (37.65 + 9.68 ml/kg/min) than in football players (33.14 + 7.05 ml/kg/min) while near similar values were observed for agility and speed in both groups and the values were not significant between two sports. The aerobic fitness of rugby players showed a significant negative correlation with height and an insignificant positive correlation with fat percentage.

Conclusions

Rugby players showed significantly higher physical fitness, namely, body composition, fat percentage, muscular strength, and muscular endurance than football players in KDU, Sri Lanka. However, aerobic fitness, speed, and agility did not differ between the two groups. The short and fat rugby players presented with higher aerobic fitness insignificantly.

Key words: *Physical fitness, Rugby, Football, speed, and agility*

PP113

Designing and Implementation of a T-ARMS-PCR Assay to Genotype Genetic variants associated with Retinoblastoma in a cohort of a Sri Lankan population

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Introduction

Retinoblastoma (RB) is the most common intraocular malignancy, characterized by high mortality if not detected early and treated promptly. Its familial and sporadic occurrence has led to the identification of the first tumour suppressor gene RB1. Mutations screening is important for risk assessment in future siblings and offspring of RB patients.

Objectives
To design and implement a novel genetic assay to identify genetic variants associated with Retinoblastoma in a cohort of Sri Lankan Patients.

Methods
A prospective descriptive study was carried out with 59 patients referred to the Eye unit of the Lady Ridgeway Hospital. The genomic DNA of 59 patients were genotyped using primers designed for Tetra-primer amplification refractory mutation system PCR (T-ARMS-PCR).

Results
The median age at diagnosis was 2 years and 7 months. Female to male ratio was 3:2. Out of which, 63% had unilateral retinoblastoma and 36% had bilateral retinoblastoma. A family history of RB was seen in 6.78 % of patients. Most cases were advanced group D at presentation. All patients tested homozygous for the ancestral allele for both rs587776789 and rs121913305 variants of the RB1 gene.

Conclusion
This assay can be introduced as a sensitive, specific and simple diagnostic technique for screening related genetic variants for Retinoblastoma in the Sri Lankan population.

Key words: *Retinoblastoma, Novel variants, RB1 gene mutation, genotype, Allele frequency*

PP114
Knowledge and Attitudes towards Thalassaemia and Pre-marital Screening (PMS) tests among Undergraduates of the Faculty of Allied Health Sciences, University of Peradeniya, Sri Lanka

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Introduction
Thalassemia is considered the commonest single-gene disorder in Sri Lanka. Nevertheless, poor awareness regarding the screening tests is one major combative factor that could lead to Thalassaemia by Thalassaemia carriers who have unsafe marriages.

Objectives
Objectives were to assess the knowledge and attitudes on Thalassemia and Premarital Screening (PMS) tests among the students of the Faculty of Allied Health Sciences, University of Peradeniya and to identify the effects of demographic variables on knowledge and attitude towards Thalassemia and Premarital Screening among the students of Faculty of Allied Health Sciences.

Methods

This descriptive cross-sectional study was conducted in the Faculty of Allied Health Sciences. This study included 213 students, who were selected using the stratified random sampling technique. A pre-tested self-administered questionnaire was used for data collection.

Results

The findings revealed that the majority of participants (n= 184, 86.38%) have heard about the aetiology of Thalassemia, with a mean knowledge score of one out of 15 questions (n= 121, 56.76%). Out of the total number of participants, 55.4% had never heard about PMS tests. When considering the attitude level, 72.3% had positive attitudes towards the prevention of Thalassaemia while 98.1% had positive attitudes towards facing PMS. Based on the findings, overall knowledge towards Thalassaemia and PMS is at a good level and attitudes regarding the above areas are at a positive or favourable level.

Conclusion

To confirm the observations, large-scale studies need to be conducted comprising different study populations. Increasing emphasis on thalassemia in the undergraduate curriculum might improve budding students' knowledge and attitudes about Thalassaemia.

Key words: *Attitudes, Awareness, Knowledge, Premarital Screening Tests, Thalassaemia*

PP115

Development of a protocol for CALR type 1 and type 2 mutations detection in Primary Myelofibrosis and Post-Polycythemia-Vera Myelofibrosis and genotype correlation with JAK2V617F mutation

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Introduction

Primary Myelofibrosis (PMF) is a rare haematological neoplasm. Polycythemia vera (PV) patients can transform into myelofibrosis (Post-PV-MF). The calreticulin (CALR) gene mutations and janus kinase-2(JAK2)V617F mutation occur in PV and Post-PV-MF. The literature lacks CALR mutation data of Sri Lankan PMF and Post-PV-MF patients.

Objectives

To develop a protocol to detect the common CALR type-1 and type-2 mutations, and correlate their presence with the JAK2V617F mutation in a Sri Lankan PMF and Post-PV-MF cohort.

Methods

Ethical clearance was obtained from the Ethics Review Committee of the Faculty of Medicine, Colombo (EC/22/119). A multiplex allele-specific polymerase chain reaction was optimized using newly designed primers (Forward 1: 5'-CAGGTCAAGTCTGGCACCAT-3'; Forward 2: 5'-GCAGAGGACAATTGTCGGA-3'; Reverse primer: 5'-ATCCACCCCAAATCCGAACC-3') to detect CALR type-1 and type-2 mutations. Test

validations were done using positive and negative controls and Sanger sequencing to verify the results. JAK2V617F mutation testing was done in untested patients (n=3) using previously validated protocols.

Results
Nine patients (PMF n=6, Post-PV-MF n=3) studied, median age 67 years, male to female ratio 1:2. Mutation positivity CALR type-1 11% (n-1, PMF), JAK2V617F 67% (n=6), CALR type-2 0% (n=0), all mutations negative 22% (n=2). CALR type-1 positive patient was negative for JAK2V617F.

Conclusion
A protocol for CALR common mutation detection was developed. The mutual exclusivity of the CALR and JAK2V617F genes in PMF was demonstrated; as done in previous studies. The presence of mutation-negative patients demonstrates the requirement for wider genomic studies. Larger cohort studies are required to establish the genetic basis of Sri Lankan PMF and Post-PV-MF patients.

Key words: *myelofibrosis, calreticulin, co-occurance, multiplex-allele-specific, PCR*

PP116
Methylation status of inflammation-related genes in healthy long-term meditators: A case-control study

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Introduction
Meditation has been shown to have various health benefits, including reduction of stress-induced inflammation. One postulated mechanism for these effects is through changes in methylation patterns in genes, which regulate their expression. However, the extent to which meditation influences the methylome in the context of inflammation remains unclear.

Objectives
This study aimed to assess the methylation level at the promoter regions of selected genes related to inflammation.

Methods
Blood samples from 30 experienced meditators and 30 matched controls were obtained and the methylation status of five inflammation-related genes, IL-6, TNFα, IFN-γ, COX-2 and CXCL-1 was measured by bisulphite-specific polymerase chain reaction followed by Sanger sequencing.

Results
Methylation level in the promoter regions was significantly higher in IL-6 ($p<0.001$), and CXCL-1 ($p<0.001$) genes in meditators. The methylation level at specific CpG sites showed that one out of six sites in COX-2 gene and four out of 16 sites in IL-6 gene had significantly

higher methylation in meditators. Although no significant difference in the overall methylation level in the promoter regions of TNF-α and IFN-γ genes were detected, two out of 12 sites and one out of 27 sites in the TNF-α and IFN-γ genes, respectively, showed significantly higher methylation in meditators. Methylation in the promoter regions of IL-6 ($p<0.001$) and CXCL-1 ($p<0.001$) genes showed a significant increase with increasing duration of meditation practice.

Conclusions

Long-term meditation has the potential to increase methylation in the promoter region of inflammation-related genes, which can result in decreased gene expression and reduced inflammation.

Key words: *Methylation, Meditation, inflammation, Case-control study, Gene-expression*

PP117
Prevalence and association of first-trimester obesity with gestational diabetes mellitus among pregnant women, Batticaloa

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Introduction
Obesity is associated with gestational diabetes mellitus (GDM) during pregnancy.

Objectives
The study aimed to determine the prevalence of first-trimester obesity, GDM, and to identify the associated maternal risk factors of first-trimester obesity among pregnant women of the Moor ethnicity.

Methods
A descriptive cross-sectional study was conducted in three Medical Officers of Health areas of Batticaloa from January to June 2022, on 551 consenting, volunteer participants excluding those with pre-existing diabetes. Sociodemographic data and anthropometric parameters were recorded at booking antenatal visits, and Body Mass Index (BMI) was calculated. The classification of BMI was according to WHO recommendations for the South Asian population. GDM was diagnosed based on an oral glucose tolerance test (OGTT) at 20 – 28 weeks of gestation. Data were analyzed using SPSS version 24.0. Descriptive statistics and chi-square tests were used.

Results
The majority of participants (63%) were in the 20-29-year age group and the prevalence of obesity was 50.1% at booking visit. The prevalence of GDM was 26.0% among the participants and 69.2% of them were obese. There was a significant association between GDM and obesity ($\chi2$ $p<0.0001$). Maternal age range of 30-39 years ($\chi2$ $p<0.0001$), being multigravid ($\chi2$

p<0.0001), and multiparous (χ2 p<0.0001) were significantly associated with first-trimester obesity.

Conclusion
We show the positive association of first-trimester obesity, which affects one in two Moor women in this study, with the development of GDM. Therefore, we recommend that dietary modifications and lifestyle changes need to be implemented before embarking on the pregnancy to reduce the risk of the development of GDM.

Key words: *Obesity, Risk factors, Gestational Diabetes Mellitus, Moor ethnicity*

PP118
Relationship between the level of physical activity and recurrent leg cramps among pregnant women in a selected hospital in Sri Lanka

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Introduction
Leg cramps are a common discomfort that affects up to 30-50% of pregnant women during pregnancy. It will affect the quality of life and sleep. Identifying its prevalence and its relationship with physical activity might help in the prevention of this complication.

Objectives
This study aims to identify the prevalence of physical activity level and leg cramps during pregnancy, Identify the associated components of physical activity level that effects leg cramps among pregnant women.

Methods
An analytical cross-sectional study was conducted on a sample of 105 pregnant women who attended the antenatal clinic of De Soysa Hospital for Women, Colombo. The mean age of the participants was 27.04 years (SD±4.470). The Physical activity type and intensity were detected and graded according to Pregnant Physical Activity Questioner, and a semi-structured questionnaire was used to gather leg cramp frequency and social demographic data. Descriptive analysis and Pearson's correlations were performed for statistical analysis.

Results
Physical inactivity was detected in the majority of the sample (54.3%). There was a moderate degree of correlation (r=0.386) between moderate-intensity physical activity and leg cramp frequency. There was a statistically significant increase between the Sedentary lifestyle and the increased frequency of leg cramps (p<0.05). Moderate-intensity physical activity was mainly household activity in this sample.

Conclusion

It was evident that physical inactivity was high among pregnant women. This should be discouraged early and encourage them to engage in moderate-intensity physical activities (150) minutes of moderate-intensity physical activity each week) to achieve a better quality of life.

Key words: *Leg cramps, Physical activity, Pregnancy*

PP119
Public perspective on the uses and indications of surrogacy within the Sri Lankan context

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Introduction
Although surrogacy is a controversial Assisted Reproductive Technology(ART) in Sri Lanka, there are various platforms that advertise surrogate mothers anonymously.

Objectives
To describe attitudes and factors associated with surrogacy among 20 - 40-year-old adults in Sri Lanka.

Methods
This descriptive cross-sectional study was conducted among men and women aged 20 - 40 years, currently residing in Colombo District. The study instrument was an online questionnaire with close-ended questions conducted via the snowball sampling method.

Results
Participants in general preferred the usage of surrogacy in women unable to have children due to medical conditions over the other instances provided (83.30%). However, in the instance of same-sex couples opting for surrogacy, non-heterosexuals (n = 22, 88.00%), Buddhists (n = 202, 58.21%), respondents with more liberal religious beliefs (n = 78, 63.93%) and those without children (n = 233, 58.54%) showed significantly higher levels of acceptance of surrogacy.

Heterosexuals (n = 165, 40.64%), non-Buddhists (n = 40, 57.14%) and respondents with firm religious beliefs had significantly higher rejection rates for the use of surrogacy to circumvent the effects of pregnancy.

Participants who had positive attitudes towards having children also depicted higher acceptance rates for both of these scenarios (p = 0.001 each).

Conclusions

Non-heterosexuals, Buddhists and respondents with more liberal religious beliefs were deemed more open-minded as to the usage of surrogacy in various instances as opposed to their counterparts. This may have a significant socio-cultural impact on the acceptance and normalization of a third-party reproduction method like surrogacy, even if properly regulated.

Key words: *ART, Surrogacy, attitudes*

PP120

Relationship of gestational weight gain and fetal birth weight in different Body Mass Index (BMI) groups, among 20-35 aged women in a selected hospital in the Western Province

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Introduction

Gestational weight gain is a significant factor that determines the health of the infant and should be maintained within the pertinent range to prevent neonatal and maternal complications

Objectives

This study aimed to evaluate the variation of gestational weight gain in different Body Mass Index groups according to the Institute of Medicine 2009 guidelines, to describe the fetal birth weight pattern, and to assess the relationship between gestational weight gain and fetal birth weight among women.

Methods

This cross-sectional analytical study evaluated 102 clinical records of women between 20-35 years who were admitted in post-natal wards at De Soysa Hospital for Women, Colombo 8 using the convenient sampling method. All the data was collected from the pregnancy records and Bed Head Tickets and gathered into a data collection sheet.

Results

The majority (47.06%) of the sample were obese. The mean gestational weight gain of the sample was 9.50±3.75 kg and the mean fetal birth weight was 2.78±0.48 kg. 45.1% of women had gained adequate gestational weight gain according to the Institute of Medicine 2009 guidelines. 79.41% of newborns had normal weight (2.51 – 3.99 kg). Pearson's correlation test conveyed a positive weak relationship ($r = .282$, $p < .05$) between gestational weight gain and fetal birth weight.

Conclusions

Most of the low-birth-weight cases were reported by mothers with inadequate gestational weight gain and macrosomia births by women with excessive weight gain. Hence, it is important to maintain adequate gestational weight gain to prevent birth weight complications.

Key words: *Gestational weight gain, fetal birth weight, Body Mass Index*

PP121

Association of Emergency caesarean section with Antenatal Obesity in Rural Sri Lanka

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Introduction

Maternal morbidity and mortality rates have been stagnating and ending preventable causes of maternal mortality is a priority area of action in the national health agenda. Antenatal obesity/overweight contributes to this but the inadequacy of strong local evidence on obstetric emergencies has hindered further action towards mortality reduction.

Objectives

This study aimed to determine the association between Emergency Caesarean-Section (Em-CS) and antenatal overweight/obesity in Anuradhapura, Sri Lanka.

Methods

A hospital record-based case-control study, nested in a large population-based cohort was conducted in Teaching Hospital-Anuradhapura. Cases and controls were women undergone Em-CS and normal vaginal delivery(NVD) respectively. A data extraction sheet was used for data collection and was analysed with binary logistic regression to determine the association.

Results

The sample mean of age-at-conception was 27.9 years (SD=5.5, Range (16-45 years) with 7.6% of teenage pregnancies. The mean BMI of the sample was 23.7 Kg/m2(SD=5.03). The baseline prevalence of obesity and overweight was 34.7% and 16.6% respectively. Cases were 118(13.3%) and controls 558(63.1%). No statistically significant difference was identified between cases and controls in regard to socio-demography and comorbidities. Overweight and obese pregnant women showed less likelihood of undergoing Em-CS than normal- weight women. (Odds Ratio; 0.63; 95% CI 0.39-0.99, p=0.05) after controlled for confounders.

Conclusions

Overweight/obesity is a protective factor for Em-CS even after controlling for confounders. Further studies are needed with qualitative component to explore the clinicians' decision making on overweight/ obese pregnant women and factors associated in the process of ending preventable maternal mortality.

PP122
Endometrial stromal nodule: can it appear as degenerative leiomyoma?

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Introduction
Endometrial stromal nodule is the least common type of endometrial stromal tumour. Although it is benign, histopathological and immunohistochemical characteristics are essential in differentiation from low-grade malignant tumours. Most of the time it is asymptomatic and represents leiomyoma with degenerative features sonographically.

Case
A 44 years old G2P1C1 woman with polycystic ovarian syndrome presented with abdominal mass and on-and-off lower abdominal pain. She had oligomenorrhea, once in every 3 months and no other significant complaints. Her examination revealed an anteverted 14 weeks size uterus and ultrasound and contrast-enhanced thermography findings suggestive of degenerated leiomyoma. The histopathological diagnosis of myomectomy revealed an endometrial stromal nodule and she was offered a total hysterectomy.

Discussion
Endometrial stromal tumours are well-defined, benign lesions usually within myometrium. Histopathologically, those consist of oval to elongated endometrial stromal-like cells with monomorphic nuclei and mitotic activity less than 1/10 high power field. They have prominent proliferative arteries without myometrial/lymphovascular invasion. Immunohistochemically these cells are strongly positive for CD10 and negative for smooth muscle actin and desmin. Hysterectomy is the gold standard treatment modality considering the theoretical risk of becoming malignant.

Conclusion
Endometrial stromal nodules can sonographically appear as degenerative leiomyoma. The complete excision of the lesion preferably wa ith hysterectomy needs to exclude invasive features and reliable differentiation from low-grade malignant tumours.

Key words: *Endometrial stromal nodule, Endometrial stromal tumors, Degenerative leiomyoma*

Poster Presentation Session 2

PP124
Prevalence and Impact of Congenital Malformations in Paediatric Surgery: A Comprehensive One-Year Retrospective Analysis

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Introduction
Congenital Malformations (CMs) are abnormalities in structure or function that develop during fetal development. They contribute to approximately 7% of neonatal deaths worldwide and 40.4% of infant deaths in Sri Lanka, even as other causes of infant mortality have decreased. This underscores the importance of addressing CMs, as they impose a substantial burden on the healthcare system.

Objectives
To analyse and review the prevalence, types, risk factors and detection of congenital malformations presenting to surgical services at Sirimavo Bandaranaike Specialized Children's Hospital (SBSCH) in the year 2020.

Methods
A Retrospective cross-sectional study on a random sample of 97 patients who presented to surgical wards of SBSCH with one or more CMs in the year 2020.

Results
In 2020, 6.13% of admissions were due to CMs, with males being predominantly affected. Of the admissions, the cardiovascular system had the highest incidence, followed by the genital and digestive systems. Malformations of the genital system were most common in the study group, with 85.6% of patients having isolated defects. Antenatal case detection was 7.4%, and most postnatal cases were detected during the neonatal period. Maternal risk factors included consanguineous marriages (6.4%), multiparity (66%), gestational diabetes mellitus (10.4%), hypertension (6.3%), lack of pre-conception folic acid supplements (26%), exposure to passive smoking (11.5%), and medication use during pregnancy (22.1%).

Conclusion
CMs remain a significant public health issue with a relatively high prevalence rate, particularly among males. Cardiovascular, genital, and digestive systems as the most commonly affected systems. Further efforts are needed to increase antenatal screening and promote healthy maternal behaviour.

Key words: *Congenital malformations, Antenatal screening, Healthcare burden*

PP125

Arterio-venous malformation in appendix present as an acute abdomen; case report

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Introduction
Arteriovenous malformations (AVM) are architectural abnormalities of blood vessels. Appendicular AVMs are rare and we present one presenting as an acute abdomen

Objectives
Not related

Methods
Not related

Results
44-year healthy male presented with lower abdominal pain and vomiting. He was ill, but the vitals were stable. His abdomen was distended with a mass palpable on the central and left lower quadrant with localized peritonitis. Inflammatory markers were high. USS showed a large heterogeneous mass within the peritoneal cavity with focal hemorrhagic areas and free fluid mimicking a bleeding GIST.

CECT showed 10*12*8 cm size enhancing lesion occupying the pelvis with significant peri-lesion stranding, compressing the bladder and bowel with few mesenteric lymph nodes. The liver was normal. CECT Differential diagnoses were desmoids and GIST.

On laparotomy, pelvic mass was identified as attached to the bladder and rectum covered with small bowel loops. On careful dissection, there was clotted blood with the appendicular tip inside which was unhealthy and ulcerated, and the rest of it was normal. Other abdominal organs were normal. An appendectomy was done and sent for histology. Clot removed. Peritoneal lavage was done. The patient recovered fully.

Histology showed a benign lesion in the appendix favouring an AVM with hemorrhagic necrosis

Conclusion
AVM are congenital architectural disorganizations in blood vessels. About 12% of AVM become symptomatic and present as acute appendicitis or acute abdomen due to bleeding. Almost all the cases of AVM were diagnosed postoperatively. Intra-abdominal AVM might be treated pre-operatively if found to prevent compilations.

Laparoscopy was an option, but decided on laparotomy as the mass was large and because of the uncertainty of the diagnosis

Key words: *Arteria-venous malformation, Appendix, Rare*

PP126

A prospective study on drain fluid amylase as an indicator of clinical outcome in patients undergoing Whipple surgery

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Introduction
Post-Whipple pancreatic fistula is defined as having a high drain fluid amylase (DFA) (>3 times of normal value). In our observation, DFA levels did not influence the clinical outcome.

Objectives
To determine the drain fluid amylase levels on the outcome of patients

Methods
48 patients who underwent the Whipple procedure from May 2015 to September 2019 were included. Serum amylase and DFA levels were assessed on days 1,3 and 5. Amylase levels were compared with the patient's outcome and the nature of the pancreas.

Results
20 patients had DFA over three times on day 1. Their median hospital stay (HS) and ICU stay did not differ from others (HS 8 vs. 9 days, p=0.545; ICU stay 3 vs. 3 p=0.95). On day three 15 patients had DFA rise and their hospital stay (HS) and ICU were comparable. (HS 8 vs. 9 days (p=0.083), ICU stay 3 vs 3 p=0.26). On day five 5 patients had DFA over three times and their median hospital stay (HS) and ICU stay were similar.
Nature of the pancreas also did not correlate significantly with DFA more than 3 times. Although patients with DFA more than 3 times of normal value on day 1,3, and 5 had smaller duct diameter (D1 2.78mm vs 4.25mm p=0.86; D3 2.08mm vs 4.42mm p=0.165; D5 4.10mm vs 1.86mm p=0.44) non was statistically significant.

Conclusions
DFA > 3 times on Day1,3 and 5 did not significantly alter the outcome of patients.

Key words: *Whipple, DFA, POPF*

PP129

Transoral Endoscopic Ultrasonic surgery (TOUSS), a novel robotless Surgery: first experience in Sri Lanka: a case report

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Introduction
This is to describe Transoral Ultrasonic Surgery (TOUSS), a new endoscopic alternative to transoral robotic surgery for dissecting laryngopharyngeal tumours using an ultrasonic scalpel

as a resection technique. Its superior in haemostasis and bloodless surgery with lower temperature generation allows minimal lateral tissue damage.

Case

A 64-year-old gentleman presented with a lump in the throat. Biopsy confirmed a Squamous cell carcinoma in the supraglottic region. The ultrasound scan confirmed no cervical metastasis, and the CT Scan confirmed no distant metastasis. The staging was T3 N0 M0. The patient had a tracheostomy tube. This was subsequently removed when the patient had fully recovered. He had no co-morbid diseases.

Operative technique:

The patient was placed in a supine position with the neck extended. Adequate exposure should be achieved by Gyrus(R) FK Retractor. We used a similar type. The endoscopic vision was achieved by ENDOEYE 10 mm video laparoscope. Ultrasonic scalpel Thunderbeat(R) had been used as a cutting and coagulating instrument.

Discussion

The endoscope is superior than the microscope in minimally invasive surgeries, The TOUSS is designed as a "robotless" endoscopic transoral procedure.

The tumour is stage 3 without distant metastasis. It's a Squamous cell carcinoma showing local invasion. Resected the tumour maximally and follow up with chemoradiation depending on the margins. 90% - 95% of tumour was removed.

Conclusion

TOUSS is a novel technique with an excellent outcome in our patient with the tumour of the supraglottic region. This is the very first attempt in Sri Lanka for a supraglottic tumour with TOUSS.

Key words: *TOUSS, robotless, supraglottic, ultrasonic scalpel*

PP130

Histological types, treatment and associated factors amongst female breast cancer survivors followed up at Apeksha Hospital, Maharagama, Sri Lanka

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Introduction

Early detection of Breast cancer is important for further treatment and follow-up.

Objectives

The objective was to describe histological types, treatment given and associated factors amongst breast cancer survivors followed up at Apeksha Hospital, Sri Lanka.

Methods

A descriptive cross-sectional study was conducted amongst 220 adult female breast cancer survivors 3 months to 1 year following surgical treatment followed up at Apeksha Hospital, Maharagama. A pretested interviewer-administered questionnaire, data extraction sheets and visual analogue scales to detect pain were used for data collection. Descriptive statistics including percentages, mean and standard deviations (SD) were used. The level of significance was taken as p< 0.05.

Results

The mean age was 58.16 years (SD=10.31). The majority were detected by self-examination (52.7%) followed by clinical examination (34.5%). Only 12.7% presented with symptoms. The commonest histological type was invasive carcinoma NST (83.6%) and only seven had ductal carcinoma in situ. Staging according to TNM classification was T2 -55%, T1- 20.9%, T3- 12.7% and T4- 11.4%. The majority (59.5%) belonged to Nottingham Grade 2. Combination therapy was received by 79.5% while 51.8% had all three types of treatment. The majority received hormonal therapy (83.6%) followed by chemotherapy (78.6%) and radiotherapy (68.2%). Most (>60%) were given adjuvant therapy. Proportion detected by self-examination was higher amongst unemployed compared to employed (78.4% vs 21.6%) and this was statistically significant (p<0.05).

Conclusion

It is important to have a community level education programmes for women to teach them self-breast examination which will contribute to an early stage detection of breast cancers leading to early treatment and better prognosis.

Key words: *histological types, treatment, breast cancer survivors*

PP132

Prevalence and the antibiotic susceptibility of pathogens causing bacteremia in neutropenic patients with neoplastic disease in a District General Hospital in Sri Lanka

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Introduction
Neutropenia increases the risk of infections and it warrants antibiotic treatment. Neutropenia is common after chemotherapy. The choice of empirical antibiotic therapy depends on the locally prevalent pathogens and their sensitivities.

Objectives
To determine the prevalence and identify the pathogens causing bacteremia in neutropenia with neoplastic disease and describe their susceptibility pattern to establish empirical antibiotic guidelines in a District General Hospital in Sri Lanka.

Methods
This is a descriptive cross-sectional study conducted at the medical wards of District General Hospital Gampaha from October 2020 to September 2021.

Results
Out of the 57 neutropenia patients, 20 (35 %) were found to have bacteremia. Out of the cultures, 65 % were caused by gram-negative organisms and 35 % were caused by gram-positive organisms. The commonest organism was E. coli (30 %). The commonest gram-positive organism was coagulase-negative staphylococcus aureus (25 %). ESBL resistance was 33 % for E. coli and 50 % for Klebsiella. Meropenem and amikacin showed 100 % sensitivity for all the gram-negative organisms. Linezolid, teicoplanin and vancomycin were most sensitive for gram-positive organisms.

Conclusion
ESBL resistance is high and continuous surveillance is required as antibiotic choices are limited. Starting amikacin or Meropenem in critically ill patients need to be considered due to this reason.

Key words: *Neutropenia, Malignancy, Infection*

PP133
Assessment of knowledge, attitudes and practices on chemotherapy among oncology patients

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Introduction
Oncology patients are highly susceptible to untoward effects of chemotherapy. Their knowledge, attitude and practice (KAP) on chemotherapy are effective determinant of their treatment.

Objectives
The objective of this study was to assess the KAP regarding chemotherapy medications among oncology patients.

Methods

A total of 311 oncology patients undergoing chemotherapy were randomly recruited from a medical oncology ward in a tertiary care hospital in Sri Lanka. The admission register was used as the sampling frame. Data were collected using a translated version of a standard questionnaire developed by Yan Wang et al. It included questions related to patients' KAP on chemotherapy medications. The collected data were descriptively analysed.

Results

Among participants 68.8% had an average knowledge of their chemotherapy medications, 62.1% had a positive attitude, and 31.2% had reported an average score for good practices. Age, education level and type of cancer significantly influenced the KAP of oncology patients on chemotherapy.

Conclusions

Among participants 68.8% had an average knowledge of their chemotherapy medications, 62.1% had a positive attitude, and 31.2% had reported an average score for good practices. Age, education level and type of cancer significantly influenced the KAP of oncology patients on chemotherapy.

Key words: *Oncology, Chemotherapy, Knowledge, Attitude, Practice*

PP134

Knowledge, attitudes & practices regarding breast neoplasms among females in Sri Jayawardenapura Kotte Divisional Secretariat Division, Colombo

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Introduction

Breast cancer is the commonest cancer among females in Sri Lanka. Good knowledge and positive attitudes play a key role in the early detection of breast cancers which eventually leads to a better prognosis.

Objectives

The objective of this study is to assess the knowledge, attitudes regarding breast neoplasms and practices regarding early detection methods and to determine the association between the level of knowledge, attitudes and practices among females in Sri Jayewardenepura Kotte Divisional Secretariat Division, Colombo.

Methods

A cross-sectional study was conducted among 112 females above 18 years in three randomly selected Grama Niladari areas in the selected Division. A validated, pre-tested questionnaire was administered by the interviewers, after obtaining informed consent. Data were assessed using a scoring system and predetermined cut-off values to determine the level of knowledge, attitude, and practices regarding breast neoplasms. Further, statistical analysis was done to

determine the association between socio-demographic factors and the level of knowledge, attitudes and practices.

Results
According to the results, among 112 participants, 67% had "good knowledge", 81.3% had "positive attitudes" and only 45.5% had "good practice". Although most of the study population had adequate knowledge regarding risk factors, clinical signs and early detection techniques they had poor awareness regarding the utilization of screening services provided by MOH offices and practising proper technique of self-breast examination.

Conclusions
It is recommended to encourage females through public health midwives to initiate self-breast examination and to attend well-woman clinics. Furthermore, nationwide screening and awareness programmes can be extended in order to overcome the disease burden.

Key words: *Self-breast examination, early detection, screening*

PP135
Cardiotoxic effects following Hump-nosed pit viper (hypnale spp.) Bites

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Introduction
Hump-nosed pit vipers of the genus Hypnale are the commonest cause of venomous snakebites in Sri Lanka and their bites frequently cause local envenoming. They less commonly cause acute kidney injury, coagulopathy and thrombotic microangiopathy.

Objectives
The objective of this study was to describe cardiotoxic manifestations following hump-nosed pit viper bites.

Methods
A prospective observational clinical study was conducted for patients admitted with hump-nosed pit viper bites to Teaching Hospital, Ratnapura. Data collection was done from June 2015 to January 2023 using an interviewer-administered questionnaire.

Results
There were 728 patients with hump-nosed viper bites of which 24 (3.3%) had cardiotoxic effects including arrhythmias in 16 (2%) and ischemic events in 7 (1%). Out of 24 patients, 15

(62.5%) were males and 9 (37.5%) were females. Their age ranged from 42-80 years. Arrhythmias included sinus bradycardia in 8 (1%), sinus tachycardia in 6 (0.8%), atrial fibrillation in 1 (0.1%), and ventricular ectopic beats in 1 (0.1%). Ischemic events included acute ischemic changes in 4 (0.5%), myocardial infarction (MI) in 2 (0.3%) and Kounis syndrome in 1 (0.1%), Out of 2 patients with MI, one was a ST elevation MI (STEMI) and the other was a non-STEMI. Three (0.4%) died due to these effects and in their autopsy findings, one had myocardial haemorrhage whereas the other had haemorrhages on the endocardium and pericardium.

Conclusion
Cardiotoxic manifestations rarely occur in hump-nosed pit viper envenoming from which arrhythmias are the commonest.

Key words: *hump-nosed pit viper, Hypnale, cardiotoxic effects, snakebites, Sri Lanka*

PP136
A preliminary study to compare the prevalence of dental caries among type 2 diabetic patients and non-diabetics at the VP OPD clinic TH Peradeniya

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Introduction
Dental caries can be an oral sign of poor glycaemic control in individuals with Diabetes Mellitus.

Objectives
The main objective of this study is to determine the prevalence of dental caries in type 2 diabetes and to compare it with non-diabetics.

Methods
In this descriptive cross-sectional study, 439 individuals at VP OPD clinic aged 30-65 years were assessed under two groups as Type 2 diabetics and non-diabetics from a simple random sampling method. Demographic and diabetes-related data were obtained using an interviewer-administered questionnaire and oral examinations were done by a dental surgeon. Data were analysed under means, standard deviations and Chi-Square using SPSS 26 software. The P value was set at 0.05.

Results
The diabetes group included 221 individuals (50.3%) whereas non-diabetics were 218 (49.7%). Serum Fasting Blood Sugar (FBS) means of diabetic and non-diabetic groups were 7.57 (±2.47SD) and 5.30 (±0.78SD) respectively. This is significant as the Chi-Square value of 168.91 and P=<0.001. 172 (53.3%) in the diabetes group and 151(46.7%) in the non-diabetic group had dental caries and this was significant as the Chi-Square value was 4.138 and P= 0.042.

Conclusion

There is a statistically significant FBS mean difference between diabetic and non-diabetic groups. Though dental caries are common, the comparison of the two groups showed statistically significant high dental caries prevalence in the diabetic group.

The results of this descriptive study led to the question of whether a routine dental assessment is needed for diabetic patients. Further randomized control studies are needed to determine it.

Key words: *Diabetes, Fasting Blood Sugar, Dental Caries*

PP137

In-vitro antimicrobial properties of selected medicinal plants against Uropathogenic Escherichia coli

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Introduction

Increasing antimicrobial resistance among Escherichia coli causing urinary tract infections (UTI) due to recurrence rate and treatment difficulty with antibiotics have been identified. Current research investigates the antimicrobial properties of amla(Phyllanthus emblica), gall nut(Terminalia chebula), land calthrop(Tribulus terrrestris), Hogweed (Boerhavia diffusa), climbing nettle(Tragia involucrate), Mountain knotgrass(Aerva lanata), Tulsi (Ocimum tenuiflorum), Ginger (Zingiber officinale), Satawari (Asparagus falcatus) and Muskmelon (Cucumis melo) against Escherichia coli ATCC 25922, the most prevalent causative agent in complicated UTIs.

Objectives

To investigate the antimicrobial potential of methanolic extracts of selected medicinal plants against uropathogenic Escherichia coli.

Methods

Plants' methanolic extracts were screened against E.coli (ATCC 25922) and UTI E.coli positive samples. Antibacterial activity was evaluated using well diffusion assay. Fruits of P.emblica and T.chebula, roots of T.terrrestris, B.diffusa, A.falcatus and T.involucrata, whole plant of A.lanata and O.tenuiflorum, Z.officinale (Rhizome), and C.melo (seeds) were used. 10μg/ml Gentamicin used as the reference antibiotic for the comparison of antimicrobial effect.

Results

Methanolic extracts of P.emblica, T.chebula, T.terrrestris, B.diffusa, T.involucrata, A.lanata, O.tenuiflorum, Z.officinale and A. falcatus shows sensitivity against E.coli ATCC 25922, but sensitivity is lower than Gentamicin. T.chebula, T.terrrestris, B.diffusa, T.involucrata, A.lanata

and A. falcatus shows sensitivity against UTI E.coli positive samples. C.melo was not effective against the E.coli (ATCC 25922) and UTI positive samples.

Conclusions
P.emblica, T.chebula, T.terrrestris, B.diffusa, T.involucrata, A.lanata, O.tenuiflorum, Z.officinale, A.falcatus plant methanolic extracts exhibited significant in vitro antibacterial activity against E.coli ATCC 25922.

Key words: *Antibacterial property, UTI, Medicinal plants*

PP138
Personal protection and SARS-Cov-2 transmission in healthcare workers

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Introduction
The COVID-19 pandemic in recent times took a heavy toll on healthcare workers (HCWs) who often struggled with limited supplies of ineffective personal protective equipment (PPE). Many doctors succumbed to illness across the world while providing care to hapless victims.

Objectives
The current case-control study was conducted to evaluate the effectiveness of Personal Protective Equipment (PPE) by comparing attitudes towards and use of PPE.

Methods
The data of COVID-19-positive HCWs was obtained from the hospital registry. HCWs who had been infected were included as cases and were invited to participate in a telephonic interview exploring attitudes towards protective measures. HCWs working in the same patient care area who had not contracted infection until that time were included as controls. Attitudes towards and use of PPE were compared between cases and controls.

Results
In our study, we found that controls, who had not become infected at the time when the cases were infected were vaccinated, older, felt that gloves were important, and preferred using face shield over goggles for eye protection. The cases reported significantly more discomfort in the use of PPE.

Conclusions
The differences in attributes, beliefs and practices noted in our study between the cases and the controls reveal important characteristics that could be associated with transmissibility of disease and need further exploration. Efforts towards vaccination, improving hand-hygiene practices while emphasizing on eye protection with face-shields will allow a healthier frontline workforce and an uninterrupted care.

Key words: *PPE: Personal protective equipment; HCWs: Health care workers*

PP139

Impact of the present economic crisis on chronic disease follow-up of the general public of Sri Lanka: A comparative study between Western Province and Uva Province

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Introduction

Being a country with a rapidly ageing population with non-communicable diseases on a raising trend, urgent interventions are needed to minimize the effect of the Sri Lankan economic crisis on chronic disease follow-up.

Objectives

The study aimed to evaluate the changes in chronic disease follow-up during the EC.

Methods

This descriptive comparative study was conducted for the adults in Western and Uva provinces during November and December 2022 using a telephone-based interview. Data were collected on chronic disease follow-up. Descriptive statistics were performed and Chi-square statistic was used to test the associations.

Results

Data of 2059 participants in both provinces (mean age=48.3±13.8years) were analysed. The prevalence of diabetes was 12.1%, hypertension was 10.8%, ischemic heart disease 3.3% and dyslipidaemia 3.6%. In the Western Province, 35.7% of participants and 28.6% of Uva province had at least one chronic disease. Compared to Western (26.3%), Uva (40.5%) stated that the health care services have been reduced significantly (p<0.001), as the unavailability of few or more medicines and investigations. Participants from Uva believed that their conditions deteriorated during the economic crisis than Western (31.2% vs 21.2%, p=0.003) due to increased cost of medicine, unavailability of medicines and missing regular clinic visits. Compared to Western, more people from Uva have missed at least one clinic visit due to high travelling cost (89% vs 23.4%). More participants from Uva (30.6%) have omitted their disease-specific medicine due to the crisis.

Conclusions

The current economic crisis has a negative impact on chronic disease follow-up in rural regions in Sri Lanka.

Key words: *Aging, Chronic diseases follow-up, Economic crisis*

PP140

Efficacy and safety of Ivermectin in the treatment of COVID-19 patients in Sri Lanka: IVERCOV, a multi-centre double-blind randomised controlled clinical trial

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Introduction
The use of ivermectin for Covid-19 has been a subject of debate.

Objectives
This study assessed the efficacy and safety of oral ivermectin in hospitalized patients with mild to moderate Covid-19.

Methods
A double-blind, randomized placebo-controlled clinical trial was conducted among RT-PCR-confirmed, adult patients, hospitalised within the first four days of symptoms. They received oral ivermectin 24mg or a matching placebo daily for five days. RT-PCR was repeated on days six (D6) and ten (D10). Clinical progression was monitored using the WHO Clinical Progression Scale. Serum SARS-CoV-2 antibody level was tested on days zero (D0) and D10. The primary outcome was the difference in the viral load between the groups.

Results
Out of 1699 eligible patients, 1450 were excluded, 249 underwent randomization and 127 received ivermectin, and 122 placebo. Fever, headache, and myalgia were the commonest symptoms. Diabetes and hypertension were the commonest co-morbidities. D10 median viral load for E gene (IQR) was 2,000 copies/mL (100 - 20,500) with ivermectin (n=80) and 4,100 copies/mL (1,000 -65,600) with placebo (n=81, p=0.028), per protocol analysis. The difference in Log viral load between D0 and D10 between ivermectin and placebo was 3.72 and 2.97 respectively (p=0.022). There was no significant difference in clinical progression or adverse effects. The majority had two doses of vaccines but only 50% had antibodies at baseline and 85% by D10. There was no difference in antibody response between the two groups.

Conclusion
Although ivermectin resulted in significantly lower viral load in patients with mild to moderate Covid-19, clinical symptoms or progression to severe illness were not affected.

Key words: *IVERMECTIN, Covid-19, Clinical Trial, viral load, clinical outcome*

PP141

A preliminary assessment of medication adherence and impact of clinical pharmacy interventions on medication optimisation in patients with acute coronary syndrome

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Introduction
Acute coronary syndrome (ACS) has been the leading cause of hospital mortality since 2010 in Sri Lanka. Secondary cardiovascular events followed by ACS are associated with increased hospital readmissions and deaths. Implementing clinical pharmacy services has been shown to improve therapeutic outcomes.

Objectives
This was the preliminary analysis of a randomised control trial to assess the impact of clinical pharmacy interventions on ACS patients and their medication adherence.

Methods
Patients diagnosed with ACS at the Teaching Hospital Peradeniya were recruited and pseudo-randomised. The intervention group patients were provided with standard care with clinical pharmacy services while the control group received only standard care. The clinical pharmacy services consisted of a medication history interview, medication review, and detection and resolution of drug-related problems (DRPs). Medication adherence was assessed using a brief medication questionnaire (BMQ) in both groups.

Results
We present early-stage baseline data from 81 patients recruited until the study was temporarily suspended due to covid-19 (Control - 42, Intervention - 39). Most patients had higher BMQ scores suggesting low adherence (Control – 53.3%, Intervention – 55.6%). A clinical pharmacy review detected 46 DRPs in the control and 20 in the intervention group. Not prescribing GTN at discharge was the most common DRP in both groups (control – 37.8%, intervention – 48.7%). The treating team accepted 60% of suggestions provided by the clinical pharmacist to resolve DRPs.

Conclusion
Both groups were similar in terms of medication adherence and detecting DRPs. Medication adherence was poor in both groups and a considerable number of suggestions provided by the clinical pharmacist were accepted by the treating team to resolve DRPs.

Key words: *Clinical Pharmacy, Acute Coronary Syndrome, Medication adherence, Drug Related Problems*

PP142
Adherence to good pharmacy practices of community pharmacies in the Gampaha District, Sri Lanka

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Introduction
The guidelines for good pharmacy practices (GPP) were introduced in 2019 in Sri Lanka but their adherence is not studied. We studied the adherence to GPP of community pharmacies in the Gampaha district of Sri Lanka.

Objectives
To determine the adherence to good pharmacy practices (GPP) of community pharmacies in the Gampaha district, Sri Lanka.

Methods
We did a descriptive cross-sectional study of all community pharmacies in the Gampaha district from 18th January to 8th February 2023. Data were collected using a self-administered online questionnaire developed using the guideline of GPP-2019 issued by the National Medicine Regulatory Authority (NMRA). The questionnaire comprised of 50-questions covering five broad areas of GPP; characteristics of the pharmacists, services and facilities provided, medicine storage, data management, and dispensing/distribution of medicines. Each question was given a mark and the final score was converted to a percentage.

Results
We received responses from 194 pharmacies. The mean adherence score was 68.8 (SD 12.8, range 24-97) %. 53.1% of the pharmacies had a score of more than 70% and 79.4% of pharmacies were aware of the GPP guideline by NMRA. 75% of pharmacies had a licensed pharmacist constantly. 92.3% of pharmacies were equipped with air conditioners, and 96.9% were equipped with a refrigerator. However, only 34% of pharmacies had a facade, "pharmacy" written in all three languages (Sinhala, Tamil, English) and 23.71% of pharmacies dispensed antibiotics without a prescription.

Conclusions
Only half of the community pharmacies in the Gampaha district were adherent to GPP.
Key words: *Good pharmacy practices, GPP, Pharmacies, pharmaceutical services*

PP143

Development and validation of indicators to determine the safety of prescribing medicines in Sri Lanka

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Introduction
Most medication errors occur at the prescribing stage.

Objectives
The objective of this study was to develop and validate indicators on safe prescribing using evidence-based accepted methodology.

Methods
The RAND/UCLA (Research AND Development/University of California Los Angeles) appropriateness method was used with a panel of fifteen experts including senior pharmacologists, academic staff, consultant physicians, pharmacists and nurses. From a systematic review and brainstorming sessions, 19 prescribing indicators were developed with defined numerators and denominators. During two rating rounds, each indicator was rated on six parameters; appropriateness, relevance, measurability and feasibility, clarity, usefulness, and comparability, using a 1-9 Likert scale, where 9 was considered as highly appropriate. Indicators were accepted if all the parameters were rated with a panel median of ≥7 without disagreement. The overall consensus of the panel was obtained at a meeting.

Results
The panel rated all 19 indicators as appropriate for assessing safe prescribing of medicines. All the prescribing indicators were identified as process indicators. There were 16 core indicators which included writing the generic names, including all required information of the patient, the prescriber and the prescribed medicines, legibility, duplication of medicines, polypharmacy, prescribing high alert and Look Alike Sound Alike medicines, using error prone abbreviations, prescribing medicines with clinically harmful interactions or contraindicated medicines, and medication reconciliation during prescribing. The three supplementary indicators were on the omission of medicines, dose calculations and therapeutic monitoring of medicines.

Conclusions
The study identified 19 indicators which could be used to assess the safety in prescribing and to determine the impact of interventions to improve prescribing safety.

Key words: *medication safety, prescribing, indicators*

PP145

Pregnancy and neonatal outcomes presented among mothers who were on antipsychotics and other medications during the gestational & prenatal period in selected hospitals - Sri Lanka

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Introduction
Medications use for various illnesses during pregnancy are on arise, it is important to understand the clinical outcomes of using antipsychotics(APs) & Other Medications(OMs).

Objectives
The study aimed to determine the maternal & neonatal outcomes due to APs & OMs intake during the gestational & prenatal period.

Methods
A retrospective cohort study used data obtained through Bed Head Tickets(BHTs) from record rooms applying a stratified sampling method on selected hospitals. Every 10th BHT is included without rearrangements. Exclusion criteria, pregnant mothers less than 16 years & who were diagnosed with systemic diseases diagnosed before pregnancy. BHTs categorized under two groups(n=431): mothers who were on Antipsychotics(AP-group) & Without-antipsychotics(WAP-group). Self-Developed & pre-tested e-format database used.

Results
Out of 431 BHTs; 2.55%(11) categorized to AP-group, 97.45%(420) for WAP-group. WAP-group recorded Normal Vaginal Delivery(NVDs) 54.05%(227), Assisted Vaginal Delivery 1.66%(7), Elective-Lower Segment Caesarean Section(E-LSCS) 22.86%(96) and emergency-LSCS 21.43%(90). In AP-group; NVDs 63.64%(7), and E-LSCS 36.36%(4). Neonatal outcomes on WAP-group & AP-group respectively: Birth weight(g) 2862.5($\pm$497.23) & 2624($\pm$449.17), Length(cm) 48.05($\pm$2.76) & 47.77($\pm$2.74), Head Circumference(cm) 32.80($\pm$1.68) & 33.05($\pm$2.16). Neonatal outcomes were compared among two groups using a t-test for two sample means. There was no statistical significance on neonatal outcomes between WAP and AP groups ($p \leq 0.05$).

Conclusions
The distribution of psychiatric diagnoses in this study was in line. Epidemiological data matched with Sertraline & Fluoxetine are commonly used drugs. Short half-life makes it easier to use and safer during pregnancy. Antipsychotics during pregnancy are at risk of adverse birth outcomes regardless of causation.

Key words: *Antipsychotics, Neonatal outcomes, Maternal Outcomes, other medications*

PP146

High prevalence of antibiotic-resistant gram-negative bacteria detected by the Bio Fire Film Array Pneumonia Plus panel in patients hospitalized with lower respiratory tract infection

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Introduction
Lower respiratory tract infection (LRTI) is a common reason for hospitalization and in-hospital antibiotic use.

Objectives
We studied LRTI aetiology in a cohort of hospitalized children and adults in a tertiary care centre in southern Sri Lanka.

Methods
Consecutive patients ≥ 1-year-old hospitalized with LRTI were enrolled from November 2019 to February 2021. A sputum sample was obtained at enrolment for microbiological culture and for multiplex polymerase chain reaction (PCR) using the BioFire Film Array Pneumonia Plus panel, which detects 18 bacteria, 8 viruses, and 7 antibiotic resistance genes.

Results
Of 267 patients enrolled, the median age was 58.0 years and 147 (55.0%) were male. Overall, 234 (87.6%) had ≥1 bacterium and 211 (79.0%) had ≥1 gram-negative bacterium detected by BioFire: Klebsiella pneumoniae (41.9%), Acinetobacter calcoaceticus (32.6%), Pseudomonas aeruginosa (26.6%), Enterobacter (25.5%), Haemophilus influenza (24.3%), Escherichia coli (16.1%), Klebsiella aerogenes (6.7%), Serratia marcescens (6.0%), Moraxella catarrhalis (4.9%), Proteus spp. (1.9%), and Klebsiella oxytoca (1.5%). Commonly detected gram-positive bacteria included Streptococcus pneumonia (22.0%) and Staphylococcus aureus (37.6%). Viruses were detected in 47 (17.6%), with influenza A (6.0 %) and rhinovirus/enterovirus (7.1 %) being most common. Identified antibiotic resistance genes included NDM (26.5%), CTX-M (21.7%), mecA.C.and.MREJ (14.6%), VIM (16.2%), IMP (10.3%), OXA-48-like (6.7%), and KPC (1.2%). Sputum culture was concordant in 67 (10.0%) of patients with a positive BioFire result.

Conclusions
We identified a high prevalence of multidrug-resistant gram-negative bacteria in patients hospitalized with LRTI, which has implications for therapeutic and preventive measures.

PP147
Tumour Budding as a Predictor for Lymphovascular Invasion in Colorectal Cancer

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Introduction
Tumour budding (TB) is an established predictor of poor outcomes in colorectal carcinoma. Peritumoral budding (PTB) is seen at the tumour front while intratumoral budding (ITB) is within the tumour.
The presence of lymphovascular tumour invasion (LVI) indicates the invasion of cancer cells into the venous or lymphatic systems.

Objectives
This study aims to find out the association between the presence of TB and LVI in colorectal cancer.

Methods
The histology of 77 colorectal carcinomas (of colectomies) was evaluated for tumour budding according to the International Tumour Budding Consensus Conference 2016 recommendations. PTB and ITB are graded into 3 tiers from grades 1 to 3. LVI was assessed as the presence of tumour infiltration in endothelium-lined spaces in the submucosa. The associations between TB, PTB grade and ITB grade with LVI were analysed among Tumour (T) stage 3 and 4 cases.

Results
TB was noted in 53 (68.83%) specimens while LVI was noted in 27 (35.06%). None of the T1 and T2 tumours had LVI. T stage 3 and 4 cases comprised 63 (81.81%) of the sample. In these, the presence of TB was significantly associated with LVI ($p<0.001$). The presence of LVI was significantly associated with an increasing PTB grade ($\rho=0.344$, $p=0.006$) and an increasing ITB grade ($\rho=0.410$, $p<0.001$).

Conclusion
The presence of TB, and increasing grades of PTB and ITB, were significantly associated with the presence of LVI. This suggests the importance of looking for LVI in colorectal cancers with TB.
Key words: *Tumour budding, Lymphovascular invasion, Colorectal cancer*

PP149

Retrospective Computed Tomography Scan Study of COVID-19 patients in Sri Lanka

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Introduction
The COVID-19 virus has become a global threat since 2019, which typically presents with respiratory symptoms and may also affect other systems.

Objectives
The study aimed at reviewing the Computed Tomography Scans of COVID-19 patients in Sri Lanka.

Methods
A descriptive cross-sectional study conducted at the Base Hospital Mulleriyawa including hospitalized COVID-19 confirmed cases underwent CT scans of chest, brain or abdomen for clinical indications.

Results
The total sample size was 112 with a male predominance (n=,58%). The majority (28.6%) were in the Absorptive stage and 32.1% showed no COVID-related changes. Of the sample, 29.5%, 24.1% and 13.4% demonstrated moderate, severe, and mild disease respectively. Of the cases, 42.0% (n=47) had a typical COVID distribution pattern with lower lobe predominance. The ground glass opacity was seen among 70.1%, followed by consolidation (62.2%) and reticulation (55.4%). Superadded bacterial infection was observed in 22.5% of cases, followed by Acute Respiratory Distress Syndrome in 20.0%, and heart failure in 17.5% of cases. There was no statistically significant association between thoracic complications and the patient's sex (p>0.05). There were 71.4%, had ischemic infarction.

Conclusion
The cases were in varying degrees of severity with the majority having moderate disease. The typical COVID distribution pattern was present in less than half of the cases and GGO was identified among the majority. Lung complications were relatively low. It is important to detect early and manage COVID-19 cases to prevent disease progression. Susceptibility to severe lung damage and complications highlights the need for further research on the impact of COVID-19 on pregnancy.

Key words: *Computed Tomography scan, COVID 19*

PP150
Role of interventional radiology in paediatric liver transplantation

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Introduction
Interventional radiology advances have rendered it attainable to treat many of the complications of liver disease in a minimally invasive manner, and they play a major role in liver transplantation.

Objectives
We aimed to assess the role of interventional radiology in a cohort of paediatric liver transplant patients.

Methods
Thirteen paediatric patients underwent liver transplantations from July 2020–February 2023 at Colombo-North Teaching Hospital, Ragama. Seven patients (53.84%) required special interventional radiological procedures. The need for an interventional radiological procedure was decided by a multidisciplinary team. A retrospective database was maintained with demographic and liver transplant data.

Results
Four patients (57.14%) requiring radiological intervention underwent procedures involving the thoracic cavity, and 5 patients (71.42%) who required radiological intervention underwent procedures involving the abdominal cavity. Two patients (28.57%) out of the seven who had interventional radiological procedures went through both abdominal and thoracic radiological interventions. As abdominal radiological interventions, splenic artery embolization (20%), hepatic venous stenting (20%), subhepatic drain placement (20%), and two abdominal pigtail drain insertions (40%) have been done. Four patients underwent pigtail insertion, which was performed as a thoracic radiological intervention.

Conclusions
Interventional radiology plays a crucial role in the management of paediatric post-liver transplantation patients.

Key words: *Splenic Artery Embolization, Hepatic Venous Stenting, Subhepatic Drain, Pigtail Drain Insertion*

PP151

Impact of haemophilia on health-related quality of life in adult males attending the haemophilia clinic at the National Hospital Colombo, Sri Lanka

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Introduction
Haemophilia is an inherited bleeding disorder which requires regular hospital visits and results in physical disability. "Health Related Quality of Life (HRQoL)" is becoming important as novel treatment options provide better quality of life and optimum life expectancy.

Objectives
To study the impact of haemophilia on HRQoL in patients attending the haemophilia clinic at National Hospital Colombo Sri Lanka and variables of HRQoL associated with patient demographics.

Methods
Case-control study of 44 haemophilia patients and 51 controls. Demographic data collected using semi-structured questionnaire and HRQoL assessed using SF-36 questionnaire.

Results
All subscales of HRQoL; Physical Functioning (PF), Role Physical (RP), Role Emotional (RE), Vitality (VT), Pain (BP), Social Functioning (SF), Mentality (MH), General Health (GH) showed a significant inverse correlation ($p<0.001$) with haemophilia. Impact was highest in RE (38.07 ± 44.29 vs. 84.95 ± 32.44), PF (55.68 ± 28.19 vs. 89.02 ± 18.66) & GH (43.15 ± 16.23 vs. 70.98 ± 20.88). Patient demographics such as level of Education (RE $=0.04$, MH$=0.018$ VS PF$=0.002$, GH$=0.006$), Employment (PF $=0.051$, SF $=0.023$, RP $=0.009$, GH$=0.024$ VS RE $=0.04$), Arthritis (PF<0.001, RP$=0.022$, GH$=0.006$ VS GH$=0.03$), Hepatitis (SF $=0.019$ VS MH $=0.032$), Marriage (VT $=0.001$ VS GH $=0.042$) & Age (PF$=-0.590$, RP $=- 0.436$, VT $= -0.414$, MH $= -0.392$, SF$=-0.392$, GH $=-0.502$ VS PF $= -0.418$, VT$= -0.359$, GH $= -0.571$) impacted on HRQoL. Prophylaxis, inhibitors, bleeding & clotting factors did not show a significant correlation.

Conclusions
Haemophilia has a significant negative impact on HRQoL. Higher level of education, full time employment, and marriage enhanced HRQoL, while arthritis, hepatitis, and ageing impair it.

Key words: *Haemophilia, life expectancy, Patient reported outcome*

PP152
Saviour turned killer: Death due to faulty airbag system

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Introduction
Fatalities due to faulty airbags are rarely reported, including in Sri Lanka.

Objectives
NA

Methods
NA

Results
A car driven by a 37-year-old male at a moderate speed had crashed through an unprotected manhole on a main road. The car had moved around 200 meters before it came to a halt. The passers-by had noticed that the driver was unconscious and partly leaning forward at the wheel with an inflated airbag. He was pronounced dead on admission. The car was a compact-type hybrid vehicle which sustained minor indentation on front bumper.
Autopsy revealed a circular perforated laceration on the right side of the neck associated with completely transected right carotid artery and partially transected jugular vein. There was a cylindrical metal object measuring 2x2 cm lodged at C4-C5 vertebrae and the remaining part of this was retrieved during scene investigation and identified as a part of the airbag canister. There was a perforation in the airbag which was similar in size to the retrieved foreign body. The cause of death was ascertained as haemorrhagic shock due to bleeding from ruptured neck vessels caused by the primary shrapnel projected from faulty airbag system. Following the incident, the manufacturers replaced the faulty airbag systems in similar vehicle models.

Conclusions
If such abnormally-fatal injuries are observed, scene visit along with automotive expert opinion would provide valuable insight into the crash. Such information would alert the general public on regular screening of safety measures and prompt manufacturers to recall products with any faulty systems.

Key words: *Airbag; automobiles; autopsy; traffic accidents*

PP153
Postmortem findings of Hump-nosed pit viper (hypnale spp.) bites

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Introduction
Hump-nosed pit viper belongs to class I of snakes in WHO classification which require antivenoms because it causes fatal systemic manifestations such as cardiotoxic effects, haemorrhages in lungs and brain. However, no antivenom is currently available for their bites in Sri Lanka or India.

Objectives
The objective of this study was to describe autopsy findings of hump-nosed pit viper bites.

Methods
A prospective observational study was conducted for patients admitted with hump-nosed pit viper bites to Teaching Hospital, Ratnapura. Data collection was done from June 2015 to January 2023. Macroscopic and microscopic findings were recorded at autopsy examination of patients died of these bites.

Results
There were 9 (1.2%) deaths following hump-nosed viper bites from which autopsy examination was carried out for 5 (56%) patients. There were 8 (89%) males and 1 (11%) female. Their age ranged from 56-93 years (mean 70.6). There were 2 (22%) patients with diabetes, 1 (11%) with hypertension and 1 (11%) with COPD. Macroscopic findings were haemorrhages on cerebrum, cerebellum, lungs (3;60%), endocardium, pericardium (2;40%), myocardium (1;20%), bleeding into thoracic cavity, congested spleen, pulmonary oedema (2;40%). Reduced cortico-medullary demarcation, petechial haemorrhage on outer surfaces were observed in kidneys (3;60%).
Microscopic findings were acute tubular and cortical necrosis in kidneys (3;60%), multifocal necrosis in spleen, centrilobular necrosis in liver (2;40%), capillary thromboses of glomeruli with red cell casts (3;60%), pulmonary oedema and intense vascular congestion of lungs (2;40%).

Conclusions
Haemorrhages and necrotic events are common post-mortem findings in hump-nosed pit viper bites.

Key words: *snakebites, autopsy findings, hump-nosed pit viper, Hypnale, Sri Lanka*

PP154

Knowledge, attitudes and practices regarding road traffic safety in 3rd year undergraduate students of Faculty of Engineering, University of Moratuwa

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Introduction
Road traffic accidents (RTAs) are a major health issue worldwide, and a leading cause of death particularly among children and young adults. Road User Behaviour is a major contributing factor towards RTAs, and thereby the Knowledge, Attitudes and Practices (KAP) of road users regarding road safety play a vital role in reduction of RTAs.

Objectives
This study was conducted to assess the Knowledge, Attitudes and Practices regarding road safety in 3rd year undergraduates of Faculty of Engineering, University of Moratuwa.

Methods
This was a descriptive cross-sectional study carried out among 109 participants using a self-administered online questionnaire. Each KAP variable was divided into General (applicable to all participants) and Driver (only applicable to participants with a driver's license) components and were analysed using scoring systems. The associations between study variables were analysed using Chi-square tests.

Results
Out of 109 participants, 94 (86.2%) had a driver's license. The KAP scores were adequate in 87.2% for General Knowledge, 58.5% for Driver Knowledge, 24.8% for General Attitudes, 28.7% for Driver Attitudes, 52.3% for General Practices and 55.3% for Driver Practices. Significant associations were found between the pairs General Practices-Knowledge ($p<0.05$), General Practices-Attitudes ($p<0.01$), Driver Practices-Knowledge ($p<0.01$) and Driver Practices-Attitudes ($p<0.01$).

Conclusion
The Attitude scores among all the participants were especially poor. There were significant associations between Practices-Knowledge and Practices-Attitudes pairs of both General and Driver categories. This implies that educational intervention to improve the Knowledge and Attitudes can lead to better road-user behaviour in young adults.

Key words: *Road Safety, Road Traffic Accident, Knowledge, Attitudes, Practices*

PP155

Knowledge on common snakes of Sri Lanka, bite prevention, first aid and associated factors among the adults of Ragama Medical Officer of Health area

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Introduction

Snakes, being keystone species in maintaining the existence of ecosystems, always have had a unique influence on humans throughout history. Poor public understanding of snakes has contributed to an increase in disease burden from snakebites. World Health Organisation identifies snake bites as a neglected tropical disease.

Objectives

To evaluate the knowledge on common snakes of Sri Lanka and snakebites among the adults of Ragama Medical Officer of Health area.

Methods

A descriptive cross-sectional study was done using cluster sampling with a sample population of 637 residents (323 females, 314 males, mean age of the population 41.31, SD of 15.59). Interviewer administered questionnaire was used.

A unified score was calculated for each participant considering ability to identify of common snakes, knowledge on venom status, bite prevention measures and first aid for snake bites. Participants who achieved 50% or above were attributed with 'good knowledge'. SPSS (version 22) was used. Statistically significant associations were identified by performing the Chi-square test.

Results

59% of the total population had a 'good knowledge'.

Of the highly venomous snakes, 98% identified Naja naja, 57% identified Daboia russelii, 44% identified Hypnale Spp and Craspedocephalus sp, 36% identified Bungaurus ceylonicus and 28% identified Bungarus caeruleus. Statistically significant associations regarding knowledge were recognised with sex, previous education on snakes and occupation.

Conclusions

The population had a satisfactory knowledge and awareness on the domains examined. Statistically significant associations were noted between knowledge and sex, participants' occupation and previous education on snakes.

Key words: *Snake bites, Toxicology, Community awareness*

PP057
Knowledge, attitudes and practices regarding malaria among undergraduate students

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Introduction
Malaria is a disease with significant global burden and Sri Lanka was certificated as a malaria free country in 2016.

Objectives
Assess knowledge, attitudes and practices regarding malaria among undergraduate students in Sri Lanka.

Methods
Questionnaire-based online survey was conducted among 577 undergraduates of Rajarata University of Sri Lanka. Data analyzed in terms of measures of central tendencies, and proportion comparisons with odds ratio.

Results
Among 577 participants [Female;60.9%, Age-mean;22.7(SD;1.7) years], 99.1%(n=572) had prior knowledge of malaria. Over 40% of participants had poor knowledge[45.9%(n=265)], attitudes[56%(n=323)] and practices[41.9%(n=242)]. Close social interactions were the main source of knowledge[53.05%(n=165): OR=1.810(95%CI:1.274-2.570)]. Majority understood malaria is mosquito-borne[68.8%(n=397)]. Only 26.1%(n=78) accurately identified the mosquito breeding-site. 48.69%(n=205) unaware of the presence of malaria-causing vectors in the country, and among them, 50.24%(n=103) exhibited poor preventive-practices. 8.3%(n=41) attribute primary responsibility for preventing malaria re-establishment to healthcare-sector, 9.6%(n=47) believe general public is primarily responsible, while 82.0%(n=401) believe both healthcare-sector and general public should share responsibility. Considerable proportion (39.7%(n=227) was not aware of the current malaria elimination status of the country, and 27.4% (n=156) were not aware of the current risk of malaria re-establishment.

Conclusions
Knowledge, attitudes and practices, on Malaria in Sri Lanka, even among a well-educated cohort, is at a basic level with very limited understanding on the vector-mosquito, its behavior, breeding-sites and current status of malaria in Sri Lanka. Taking our own past experiences also in to consideration, it is extremely important to improve community awareness on key aspects of malaria to ensure the sustenance of malaria elimination status in the island.

Key words: *Prevention, Educated, Re-establishment, Mosquito-borne, Elimination*

PP157
Fasting blood glucose, nutritional status, diet and lifestyle factors in a group of Sri Lankan undergraduates

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Introduction
Diabetes mellitus (DM) is multifactorial in origin and is associated with unhealthy diet, sedentary lifestyle, smoking etc.

Objectives
Our objectives were to describe the fasting blood glucose (FBG) levels, nutritional status, diet and other lifestyle factors among undergraduates at the Faculty of Allied Health Sciences, University of Ruhuna.

Methods
This was a descriptive cross-sectional study. A self-administered questionnaire was used to collect data and anthropometric measurements were obtained. Fasting blood glucose (FBG) was estimated using the GOD-PAP method. Data were analyzed using appropriate methods.

Results
Participants (n = 100) were in the age range of 20 - 28 years and 58% were females. Their FBG ranged from 70 to 108 mg/dL. Three per cent of them had impaired fasting glycaemia (IFG) and DM was not reported. The mean (SD) BMI was 20.9 (3.4) kg/m2. Among them, 29% were overweight or obese. Waist circumference (p=0.004) and BMI (p=0.019) showed a significant positive correlation with FBG.
Most of them did not consume the recommended portion size of the prescribed food items daily. The majority of them (82%) consumed three main meals per day. However, missing main meals was reported among 36%. The majority of them (60%) drank adequate water and did not consume alcohol or smoke. A considerable proportion of them ate junk food. A majority (72%) did not have adequate sleep daily and did not engage in regular exercise (73%).

Conclusion
The proportion of undergraduates with IFG is very low. Most of them do not consume a healthy diet and are not involved in regular exercise.

Key words: *Diabetes mellitus, prediabetes, impaired fasting glycaemia, young adults, diet, physical activity*

PP158

Perception of the accessibility to healthy food choices or alternatives of workers in selected garment factories during the economic crisis

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Introduction

The economic crisis could lead to nutrient deficiencies among Sri Lankans. Consumption of alternative healthy foods is possible with proper motivation, education and food distribution systems.

Objectives

The objective of the study was to assess the knowledge of healthy food alternatives, changes in dietary patterns with crisis and the perceptions of the accessibility to food alternatives among garment workers.

Methods

A cross-sectional, self-administered questionnaire-based study was conducted among workers of 3 selected garment factories in Hambantota (n=423). Data were analysed using SPSS version 23.

Results

The majority (80.25%; n=325) had dietary pattern changes with the economic crisis. Reduction of food frequency was highest for biscuits and sweets (36.5%) followed by sweetened beverages (31.3%), bakery products (30.8%), animal origin foods (24.98%), dairy products (24.5%) and fruits (23.1%). Food frequency reduction was significantly different ($p<0.05$) among age groups and salary scales. Average knowledge on healthy food choices was 63.13% and 63.04% respectively in males and females with no statistical significance ($p>0.05$) among genders, age groups, and educational levels.

Almost 45.4%, 38.3% and 21.3% respectively perceive that the low accessibility to healthy foods is due to high price, infeasibility to grow in home gardens and unavailability in the area. Lack of time to grow is the main reason for less accessibility to healthy food among the majority (46.8%).

Conclusions

The significant reduction of certain food consumption frequencies is beneficial while others could lead to nutrient deficiencies. Majority perceive that healthy foods are expensive and have a lack of time to grow in home gardens.

Key words: *Economic crisis, Food alternatives, Perception*

PP159

Daily dietary calcium intake among medical undergraduates at Rajarata University of Sri Lanka

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Introduction

High cost and shortage of food due to the prevailing economic crisis can cause numerous nutritional deficiencies among Sri Lankans.

Objectives

This study aimed to assess the daily dietary calcium intake (DDCI) among medical undergraduates at Rajarata University of Sri Lanka (RUSL).

Methods

An online survey was conducted in February 2023. DDCI was calculated using food composition tables. The percentage of participants with inadequate intake was identified and categorized as mild (667-999mg/day), moderate (334-666mg/day), and severe (0-333 mg/day) inadequate intake.

Results

A total of 445 responded, and their mean age was 22.7($\pm$1.8) years. The majority were females (n=325,73%) Only 7 were on regular calcium supplementation. The average DDCI of the rest was 639.6($\pm$293.7) mg/day. Only 54(12.3%) had DDCI above the recommendation ($\geq$1000mg/day). Of the participants with an inadequate intake (n=384,87.7%), 149(38.8%), 189(49.2%) and 49(12.7%) had mild, moderate and severe inadequate intake respectively. A significant difference (ANOVA Test, p=0.000), in DDCI was detected across the academic years, in which the participants from the most junior academic year (2021/2022) had the lowest average intake (556.8$\pm$239.9mg/day). A significant difference in DDCI was not observed between males and females (Student's t-test, p=0.436). Rice (14.9%), water (13.6%), and milk (13.3%) were the main sources that provided calcium for the majority.

Conclusions

Inadequate DDCI was identified among the majority of medical undergraduates at RUSL. The majority fulfil the calcium requirement from rice; the staple of Sri Lankans. Promoting calcium-rich food consumption through educational interventions and the introduction of low-cost food items are imperative to ensure adequate calcium intake.

Key words: *Calcium Intake, Medical Undergraduates, Sources*

PP160

Fatty acid profile and phenolic acid profile of raw and processed Artocarpus nobilis (Ceylon breadfruit) seed

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Introduction
Nuts and seeds are recommended for a healthy diet as they are capable of protecting against diet-related non-communicable diseases. There are a number of underutilized nuts in Sri Lanka with unknown properties. Artocarpus nobilis (Ceylon breadfruit) is a native underutilized nut with a unique taste comparable to some popular nuts like Pistachio, Macadamia etc.

Objectives
This study investigated the fatty acid and phenolic profile of processed: roasted, boiled and microwaved A. nobilis seeds.

Methods
The fatty acid composition was analyzed by Gas Chromatography (GC)technique and phenolic profile was analysed using a UHPLC system

Results
Major fatty acids found in A. nobilis seed were linoleic (48%), palmitic (14%), and oleic acid (10.5%). Irrespective of the processing condition, total proportion of polyunsaturated fatty acid (PUFA), medium chain fatty acid (MUFA) and short chain fatty acid (SFA) content in A. nobilis seed ranged from 49.4-51.5%, 8.9-11.9% and 20.4-21.1%, respectively. Upon processing, there was an increment in MUFA content and reduction ($p>0.05$) in SFA level, in comparison with the raw seeds. According to the analysis done by UHPLC system, Gallic acid, (+)-catechin, chlorogenic acid, p-coumaric, rutin, sinapic, vanillin, and caffeic acid were found in A. nobilis seeds. (+)-Catechin (191-1015 µg/g) and Sinapic (498.8-603.3 µg/g) acids found at higher concentrations in A. nobilis seed and boiling made and significant reduction of phenolic acid.

Conclusions
The result highlighted that the A. nobilis seeds are rich in healthy fats and polyphenolic compounds and could be promoted as a healthy nut for diet-related non-communicable diseases.

Key words: *Fatty acids, phenolic acids, Artocarpus nobilis*

PP161

How the Nutrition Policies Implement in Sri Lanka to Promote Health and Development of Adolescents; a qualitative study

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Introduction
Public policies are one of the critical structural determinants of health, and nutritional behavior has been identified as an intermediate determinant of health.

Objectives
The objective of this study is to explore executing the relevant national nutrition policies and guidelines among adolescents in Sri Lanka.

Methods
The study was qualitative. Adolescents were the target population covering the age group 10 to 19 years, both school-going and school leavers. The sample size was 24 (n=24). The study setting was the central province of Sri Lanka. The saturation method was used as the guide for the data collection, and the triangulation method was applied to improve data validation., Data were collected from selected adolescents, public health inspectors, parents of the selected adolescents, canteen owners, school teachers, and principals. Data were collected through in-depth interviews and analysed using the framework analysis method.

Results
Results show awareness of national nutrition and school canteen policies, and relevant guidelines is poor among adolescents. Only public health inspectors were fully aware of the nutrition policies. Even though adolescents are well aware of the nutrition components and the importance of healthy nutrition practices, their awareness of nutrition policies is poor. Other stakeholders who took part in the study were not fully aware of nutrition components, healthy nutrition practices, and nutrition policies. Also, it is identified that implementing nutrition policies in school settings and at the community level remains insufficient.

Conclusions
In conclusion, an effective evaluation mechanism for assessing the implementation of relevant national nutritional policies and guidelines for adolescents should be prioritized.

Key words: *Adolescents, Nutrition, Policy, Social determinants*

PP162

Characterization of lotus (Nelumbo nucifera) and water lily (Nymphaea pubescens) seed starch as excipients compared to maize starch BP

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Introduction
In the pharmaceutical industry, starch has a wide range of applications as a binder, disintegrant, and filler. The versatility of starch for commercial purposes is clearly defined by its physicochemical attributes.

Objectives
This study is aimed to characterize the necessary parameters of starch extracted from seeds of Nelumbo nucifera (Lotus) and Nymphaea pubescens (Water lily) in explicating its suitability as excipients compared to maize starch BP.

Methods
Starches from seeds of lotus and water lily were extracted by mixing powdered unhusked seeds with distilled water (1:2 w/v), filtering, and drying the precipitate at 40°C. The extracted starches and commercially available maize starch BP were subjected to characterization for physicochemical properties, Infrared spectroscopy (IR) analysis, and microscopic analysis. Statistical analysis was performed using SPSS 23.0.

Results
Lotus starch did not indicate a significant difference in true density, tapped density, bulk density, Hausner's ratio, Carr's index, moisture sorption capacity and particle size compared to maize starch BP while water lily starch did not report a significant difference in pH, true density, Hausner's ratio, Carr's index and turbidity compared to maize starch BP ($p>0.05$). All these three starches exhibited identical IR spectra and polyhedral and subspherical starch granules in the micrographs.

Conclusion
Both lotus and water lily starches exhibited satisfactory physicochemical profiles as excipients. Most of the parameters of lotus and water lily starches are well compared with maize starch BP. Therefore, starches from lotus and water lily could be further studied for their suitability as alternatives to maize starch BP.

Key words: *Pharmaceutical excipient, Plant starch, Physicochemical parameters*

PP163

Quality of life and psychological impact among patients with food induced anaphylaxis at a clinic in Sri Lanka

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Introduction
Globally food allergy affects 2–3% of adults. Food is a common trigger of anaphylaxis in Sri Lanka. Studies have shown anaphylaxis has an impact on the quality of life and mental health of a patient.

Objectives
To assess the quality of life (QOL) and psychological impact of anaphylaxis among adults in Sri Lanka.

Methods
Adults with at least one episode of physician-diagnosed food induced anaphylaxis were recruited. Evaluation of QOL was done using the food allergy quality of life questionnaire (FAQOL-AF) and psychological impact was evaluated using the depression anxiety and stress scale 21 questionnaire (DASS 21). Patients with underlying psychiatric illness were excluded. Statistical analysis was done using GraphPad prism version 9.0.

Results
Seventy-seven (77) patients were recruited, of them 45 (58.4%) were female. Majority were between 18 -35 years, 42 (54.5%). The average mean QOL score was 4.47, which indicates a poorer health related quality of life. Those with 3 or more episodes of anaphylaxis had a poorer average QOL than those with 2 or less episodes, (4.4 vs 4.5) although this was not significant. (p>0.05) Of the DAAS 21 scoring 31 (40.26%) were positive for stress, 48 (62.34%) were positive for anxiety and 31 (40.26%) were positive for depression.

Conclusions
The study concluded that food induced anaphylaxis causes a poor health related QOL of patients and that stress, anxiety and depression is noted among them. Clinicians must be aware of this and refer patients to a Clinical Immunologist for better management of the disease and for psychological support when necessary.

Key words: *Anaphylaxis, Quality of Life, Anxiety*

PP164

Clinical characteristics of allergy to Cocos nucifera (Coconut) in Sri Lankan children

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Introduction
Allergy to coconut is an important cause of allergy and anaphylaxis among children in Sri Lanka.

Objectives
To characterize the timing of presentation of coconut allergy, clinical disease severity and related allergies in a paediatric cohort from Sri Lanka.

Methods
14 children who were suspected to have allergy to coconut, were recruited to the study. Socio demographic data, severity and timing of the allergy and the presence of other allergic diseases and their severity was recorded. The severity of atopic dermatitis (AD) was classified according to the SCORAD scale. The skin prick test (SPT) for coconut was performed in all children according to the EAACI guidelines for SPTs.

Results
7/14 children were females. All patients developed their allergy in the first instance they were introduced to coconut during the weaning period (4 to 6 months of age). 11/14 patients had AD. All patients had other food allergies which included lentil, almond, hazelnut, and sesame. All patients had developed urticaria after exposure to coconut, 10/14 had itching and angioedema, 5/14 had vomiting, 6/14 had swelling of lips, 3/14 developed fainting and difficulty in breathing, 2/14 had abdominal pain and diarrhoea, wheezing and loss of consciousness. Overall, ingestion of coconut resulted in anaphylaxis in 5/14 children.

Conclusions
Allergy to coconut manifested at the time of weaning and was associated with AD in the majority of children. Since all children with coconut allergy also had allergy to other food it would be important to understand the cross reactivity of coconut allergens with other food.

Key words: *Allergy, Coconut, Children*

PP165

Weight loss attitudes and preferences among medical undergraduates of Rajarata University of Sri Lanka

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Introduction
Weight loss has gained popularity as a solution for obesity and maintain a healthy body composition, with exercise and diet plans widely recommended.

Objectives
The study aimed to determine the concern towards weight loss and the popularity of preferred methods among medical undergraduates in Rajarata University of Sri Lanka.

Methods
A self-administered questionnaire on demographic data, body mass index, weight losing preferences was distributed as a Google form to medical undergraduates of the Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, and data were analysed using the SPSS statistical software.

Results
The questionnaire was completed by 490 medical undergraduates (64.1% (n=314) preclinical; 35.9% (n=176) clinical students). Underweight, desirable-weight, overweight, obese and very-obese prevalence in preclinical students were respectively, 16.3%, 62.9%, 13.4%, 6.1%, 1.3% and of the clinical students, 16%, 57.1%, 21.7%, 2.9% and 2.3% respectively. Overall, 57.1% students are concerned about losing weight: (59.4% males and 56.3% females). Further, 31.1% of underweight (n=23), 54.4% of desirable weight (n=297), 85% of overweight (n=80), 83.3% of obese (n=24) and 87.5% of very obese (n=8) students concerned about losing weight. Most popular weight-losing methods were exercise (n=170; 34.7%) and diet plans (n=156; 31.8%), followed by stress management (n=51, 10.4%), beverages (n=34%; 6.9%), and medications (n=15; 3.1%) of the total sample. A combination of exercise and diet plans was preferred by 83 students (48.8%).

Conclusions
The majority of Medical Students at Rajarata University are concerned about weight loss, with exercise and diet plans as top favoured methods to lose weight.

Key words: *Medical undergraduates, weight loss, weight losing methods*

PP187

The effectiveness of an intervention to manage occupational stress among bus drivers of Sri Lanka Transport Board in the Colombo District

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Introduction
Occupational Stress among bus drivers is on the rise in the world. With no difference, it is of prime importance to address it in Sri Lanka.

Objectives
To conduct a mental health promotion stress management intervention among bus drivers of the Sri Lanka Transport Board in the Colombo District and to assess its effectiveness.

Methods
The prevalence of job strain was measured by using an Effort-Reward Imbalance questionnaire, among the bus drivers. A cluster randomized control trial was performed to manage occupational stress. Drivers were selected by randomization from 12 depots, and intervention carried out in 6 depots. The intervention and control arms consist of 72 drivers each. The mental health promotion-stress management intervention package was delivered for six months. The outcome was assessed by post-test stress levels. Process indicators also determined the effectiveness of the intervention.

Results
Pre-intervention prevalence of occupational stress in the intervention group was 50% (n=36) and in the control group was 58.33% (n=42). This difference was not statistically significant (p=0.316).
The post-intervention stress level in the intervention group was 40.28% (n=29) and in the control group, it was 56.94% (n=41). This difference was statistically significant (p=0.045).
Out of the intervention subjects, 86% of the drivers expressed this programme as an excellent initiative in the process assessment.

Conclusion
Mental health promotion stress management intervention was effective in occupational stress reduction among bus drivers.

Key words: *Job strain, SLTB bus drivers, mental health promotion*

PP166

A study on the prevalence of Familial Hypercholesterolaemia (FH) among laboratory samples in Sri Lanka

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Introduction

Familial hypercholesterolemia (FH) is one of the commonest inherited metabolic diseases which predisposes to cardiovascular diseases. There is no literature on the prevalence of FH in Sri Lanka.

Objectives

This study was aimed at finding the prevalence of FH in Sri Lanka as it is helpful in planning further studies on FH in the country and optimising the care of patients with FH.

Methods

The diagnosis of FH was based on Dutch Lipid Clinic Network Criteria (DLCNC) score and the data was evaluated over six months at a tertiary-care hospital and a primary-care centre.

Results

Out of 3039 serum lipid profiles reviewed, 42 (1.38 %) had LDL-cholesterol of 4.9 mmol/L after the exclusion of 16 (0.52%) with identified secondary causes [untreated hypothyroidism (n = 13), nephrotic syndrome (n=3)], no secondary investigations (n=14) and lost to follow up (n=42). (Figure 1)
0.92 % of all patients who had LDL-cholesterol measured over the six months had a DLCNC score of 3–5, 0.26 % scored 6–8 and 0.197 % scored > 8 indicating a possible, probable and definite diagnosis of FH respectively. The point prevalence of likely phenotypical FH based on DLCNC (probable or confirmed) was calculated as approximately 14/3039 (1: 217)

Conclusion

The prevalence of FH in patients investigated on lipid profile in a tertiary-care hospital and a primary care was 1:217. This is comparable with the prevalence of FH in the global population (1 in 200–250). This is the first study to assess the prevalence of FH in Sri Lanka.

Key words: *dyslipidaemia, familial hypercholesterolaemia, lipids*

PP167

Epidemiology of eczema among children aged 13-14 years from Anuradhapura Municipal Council area, Sri Lanka

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Introduction
Eczema is a chronic inflammatory skin disorder closely associated with asthma and allergic rhinitis in children and in adults. The epidemiology of eczema among children in the dry zone is not adequately studied.

Methodology
We conducted an analytical cross-sectional study using validated translations of the International Study of Asthma and Allergy in Childhood questionnaire to assess the epidemiology of eczema among children aged 13-14 years at six government schools located in the Anuradhapura Municipal Council area. Grade eight classes and schools were randomly selected using multistage sampling.

Results
The study sample consisted of 1029 participants (528 male and 501 female) with 826 (80.3% 13-year-olds and 203 (19.7%) 14-year-olds. The majority were born in the Anuradhapura district (n=931, 90.5%). One hundred and twenty-eight (12.4%) adolescents have had at least one episode of an itchy rash that was periodical at least for six months and 72 (7.0%) had a rash in the preceding year. Most of the adolescents with recurrent itchy rash developed symptoms after 5 years of age (n=55, 76.4%). The prevalence of eczema was 3.2% (n=33, 95%CI 2.1 – 4.3). Comorbid severe asthma (OR 6.7; 95%CI 3.16-14.07), using kerosene lamps for lighting (OR 6.35; 95%CI 1.79-22.54), having close contact with domestic animals (OR 2.29; 95%CI 1.03-5.09), presence of smokers in the house (OR 2.58; 95%CI 1.04-6.40) and female sex (OR 1.95; 95%CI 0.92-4.12) were independently associated with eczema.

Conclusion
Eczema is common with unique independently-associated factors that are identifiable for targeted healthcare provision.

Key words: *Eczema, School children, Epidemiology*

PP168

Prevalence of injection site complications and their association with knowledge and practices of pre-mixed insulin usage among patients with diabetes mellitus attending NHSL diabetes clinic

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Introduction
Diabetes Mellitus is one of the major public health problems with rising incidence in the world with a devastating impact on physical, social and mental well-being. About 1 in 5 adults in Sri Lanka are having diabetes or are pre-diabetic.

Objectives
The aim of this study was to determine the prevalence of injection-site complications and their association with knowledge and practices of pre-mixed insulin usage among patients with diabetes mellitus attending the NHSL diabetes clinic.

Methods
A cross-sectional study was conducted amongst a sample of 143 consecutively recruited diabetic patients between 18 - 80 years using pre-mixed insulin for at least 1 year. They were assessed via an interviewer-administered questionnaire based on knowledge, practices and occurrence of injection site complications. Prevalence of complications was determined and their association with dichotomized knowledge and practice scores were analysed using the chi-square test.

Results
Majority, 74.8% (n=107) had good knowledge whereas 58.7% (n=84) had good practice regarding insulin administration. Common complications were bleeding (69.9%), insulin leakage (49.7%), bruising (37.8%) and lipohypertrophy (26.6%). Poor practice score was significantly associated with the occurrence of lipohypertrophy (p=0.005), bruising (p=0.019) and abscess formation (p=0.001). Longer duration of insulin usage was significantly associated with lipohypertrophy (p<0.001), bleeding (p=0.013), bruising (p=0.001) and abscess formation (p<0.001).

Conclusions
Although the overall knowledge and practices were good, there was a significant association between complications and poor practice status. Therefore, patients should be educated regarding proper insulin administration and their potential complications.

Key words: *Insulin, Complications, Knowledge, Practice*

PP169

Association of shoulder joint mobility with diabetes mellitus in patients with type 2 diabetes mellitus

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Introduction
Type 2 Diabetes Mellitus (T2DM) patients have a greater risk of having microvascular and macrovascular complications which are associated with poor glycemic control. Limited shoulder joint mobility is a long-term musculoskeletal complication of T2DM which may be affected by poor glycemic control.

Objectives
This study aims to identify a relationship between the Range of Movement (ROM) of shoulder joints and Glycemic control of T2DM patients.

Methods
This analytical cross-sectional study recruited 105 patients, mean age of 56.48($\pm$3.50) years, diagnosed with T2DM, attending Diabetes and Endocrine clinics, the National Hospital of Sri Lanka. ROM of shoulder joints was measured by a universal goniometer. Glycemic control of patients within the last four months was detected from the HbA1C test. Descriptive statistics and Pearson's correlation were used during statistical analysis.

Results
This study found higher ROM limitations of the shoulder joint regarding flexion (97.1%), abduction (96.2%) and external rotation (97.1%) in T2DM patients. The majority of participants (69.52%) were diagnosed with poor glycemic control. This study found a negative relationship between shoulder ROM and HbA1C results with regard to flexion (r =-0.786), abduction (r =-0.923) and external rotation (r =-0.855) in T2DM patients.

Conclusion
Worsening of glycaemic control has a negative effect on shoulder joint mobility of T2DM patients. Routine ROM measurement of shoulder joints is recommended as a part of the investigation of T2DM patients. It is better to have a good awareness programme about glycaemic control and a simple exercise programme which focuses on shoulder joint ROM in the initial stage of T2DM patients.

Key words: *Type 2 Diabetes Mellitus, Range of motion, Glycemic control*

PP170

Anthropometric parameters of newly diagnosed patients with myocardial infarction admitted to tertiary care hospitals of Western Province of Sri Lanka – a case-control study.

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Introduction

Ischaemic Heart Disease (IHD) is the leading cause of death in the world as well as in Sri Lanka. Obesity-related anthropometric indices have been recognized as contributing risk factors for IHD.

Objectives

This study was done to analyse anthropometric indices of people at the time of their first myocardial infarction (MI) and to compare those anthropometric indices with people without myocardial infarction.

Methods

A case-control study was conducted in selected hospitals. Newly diagnosed patients with MI and age and sex matched patients admitted to these hospitals were recruited as cases and controls.

A hundred cases (63% males) and hundred controls (63% males) who fulfilled the inclusion-exclusion criteria were recruited. Demographic details were taken using interviewer-administered questionnaire and anthropometric indices were measured. Data analysis done using SPSS version 24, software. Associations were analysed by using Bivariate tests, t tests, and Logistic Regression.

Ethical approval was obtained from the ERC of PGIM.

Results

Mean age of the cases was 61.37 years and that of the controls was 61.1 years. Total Cholesterol ($p = 0.033$), Triglyceride ($p = 0.049$), LDL Cholesterol ($p = 0.001$), Waist Hip Ratio (WHR) ($p = 0.001$) showed a statistically significant association with MI, when analyzed using independent t test. With Logistic Regression, thigh circumference (OR = 0.918, 95% CI 0.961 – 0.978) and WHR (OR = 1.96, 95% CI = 1.23 – 2.43) showed a statistically significant association with MI.

Conclusion

WHR was found to be a risk factor for MI, higher educational status and high thigh circumference were protective factors.

Key words: *Anthropometric indices, Ischaemic heart diseases, Western Province of Sri Lanka*

PP172

Study on frailty among a selected group of community-dwelling elderly people in the Colombo District

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Introduction
The global elderly population is growing rapidly, leading to an increased need to focus on elderly care. Knowledge of frailty and its factors, which can be used as a strong and independent predictor of many adverse health outcomes in the elderly, is of great help in preventing and reducing them.

Objectives
This study aims to describe frailty and ADLs in community-dwelling elderly people.

Methods
A descriptive cross-sectional study was conducted, using 120 community-dwelling elders (male=58, female=62) from six selected Grama Niladhari divisions in the Colombo district. The level of frailty was assessed using the GFI questionnaire, the level of ADLs was assessed using the Katz index, and socio-demographic factors were obtained using a pre-tested basic questionnaire.

Results
In this study, a high prevalence of frailty of 39.2% was detected in the sample. Approximately 1/3 were identified with one or more problems with ADLs (34.2%). A strong degree of negative correlation (-0.846) was found between frailty and ADLs. Higher age, female gender, lower education level, and a history of arthritis were significantly associated with increasing frailty while higher age, female gender, current occupational status, and presence of past surgical history were significantly associated with decreasing ADLs.

Conclusion
A high level of frailty reflects the risk of many adverse health outcomes such as worsening ADLs performance in the elderly. Identifying associated factors for frailty and early detection/ prevention of those conditions will lead to reducing many of the potentially adverse conditions and securing the care of the elderly.

Key words: *Elders, Frail, ADLs*

PP173

Effect of fear of falling on physical activity in older adults with type 2 diabetes mellitus

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Introduction

Physical inactivity is identified as a modifiable risk factor for type 2 diabetes mellitus (T2DM). Fear of falling (FOF) is known to affect the physical activities (PA) and less physical activities negatively affect the diabetic control.

Objectives

This study aimed to identify the association between FOF and PA of patients with T2DM attending selected hospitals in Colombo.

Methods

In this cross-sectional study, 180 participants with T2DM aged 60 years and above were recruited. Demographic data were assessed using interviewer administered questionnaire. Short Form of International Physical Activity Questionnaire (IPAQ-SF) and Iconographical Falls Efficacy Scale (Icon-FES) were used to assess PA and FOF. Descriptive statistics and Spearman correlation test were used for data analysis in SPSS version 20.

Results

Among 180 participants (mean age=66.61(±5.347 years)),38.3%(n=69) were males and 61.7%(n=111) were females. Mean FOF score was 18.63(±7.323). Mean energy expenditure for total physical activity was 1567.78(±1216.99) MET. Mean value of fasting blood glucose level was 131.88mg/dL (±42.704). Among 180 participants 20 %(n=36) were physically inactive, while 68.4 %(n=124) were moderately active and 11.1 %(n=20) were highly active. Physically inactive group had the highest mean FOF score (22.83, ±8.338), and they were significantly associated (p<0.05). There was a significant negative relationship between PA and FOF (r= -0.302, p<0.001). There was no significant relationship between fasting blood glucose level and FOF (r=0.135, p>0.05).

Conclusions

Majority of the T2DM older adults were physically inactive or moderately active. Increased FOF led T2DM older adults to be physically inactive.

Key words: *type 2 diabetes mellitus, physical activity level, fear of falling*

PP174

Knowledge and attitudes regarding hearing aid use and factors associated with it among elders diagnosed with age-related sensorineural hearing loss attending the ear, nose, throat (ENT) clinic at National Hospital, Colombo, Sri Lanka

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Introduction
Age-related sensorineural hearing loss (ArSNHL) is the most common cause of hearing loss among the elderly, and behind-the-ear type (BTE) hearing aids are the mainstay of management in Sri Lanka. Local resources regarding hearing aid use among the elderly are sparse.

Objectives
To determine the knowledge and attitudes regarding hearing aid usage, and to describe the factors associated with it among elders diagnosed with ArSNHL in Sri Lanka

Methods
A cross-sectional study was conducted among patients with ArSNHL, using BTE hearing aids. Participants were recruited systematically from ENT clinics of NHSL. An interviewer-administered questionnaire was used to obtain data on sociodemographic characteristics, degree of hearing handicap prior to hearing aid uptake, perceived impact of hearing aids, problems related to hearing aid use and knowledge regarding hearing aids. Factors associated with hearing aid usage were assessed using the Chi-square test at 0.05 significance.

Results
From the sample (N=152) 75% of study participants had good technical knowledge which had a statistically significant association with the overall duration of hearing aid use ($p < 0.05$). Although 52% had a moderate degree of ArSNHL, 75% perceived they had a severe disability. Despite 90% being positively impacted by hearing aids, only 50% were willing to replace them if broken citing cost and background noise as problems.

Conclusions
Awareness should be on the benefits and limitations of hearing aids, rather than the technique of use. Common problems with hearing aids and their management should be highlighted to improve compliance.

Key words: *Age-related sensorineural hearing loss, hearing aids, elderly*

PP012

Assessment of individual perceptions on asthma symptom control and the quality of life among asthmatic patients attending the respiratory clinic of Teaching Hospital Anuradhapura, Sri Lanka

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Introduction

Asthma-related quality of life is the perceived impact of asthma on a patient's quality of life. Asthma control is the extent to which the symptoms of asthma have been reduced or removed following treatment.

Objectives

To assess patients' perceptions regarding their symptom control and the influence of the burden of asthma on their quality of life.

Methods

A descriptive cross-sectional study was conducted in the respiratory clinic of Teaching Hospital Anuradhapura, Sri Lanka in the year 2020 to assess the quality of life and asthma control in adult asthma patients attending the respiratory clinic of Teaching Hospital Anuradhapura. We selected 100 consecutive physician-diagnosed asthma patients for the study. The translated and validated versions of the miniAsthma Quality of Life Questionnaire and the Asthma Control Questionnaire.

Results

Of the selected patients, 85 participants completed the questionnaire properly. The study sample included 09 males and 76 females with a mean age of 56 years (SD 12.7). Good asthma quality of life was reported with regard to symptoms, activity limitations, emotional function and environmental stimuli domains in 47(55.3%), 50 (58.8%), 41 (48.2%) and 29 (34.1%) respectively. Asthma is well-controlled in 29 (34.1%), 15 (17.6 %) had borderline control and 41(48.2%) had poor control of asthma symptoms. Poor control of asthma symptoms was significantly associated with severe impairment in asthma-related quality of life (p<0.001, unadjusted OR 5.76; 95%CI 2.27-14.67).

Conclusions

Asthma was not well-controlled in approximately half of the study sample and individual perception of the quality of life was poor.

Key words: *Asthma control,Quality of life individual perceptions*

PP175

Current knowledge and perception related to advance life support (ALS) among medical and nursing officers in a District General Hospital

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Introduction

Knowledge regarding Advance life support (ALS) and Resuscitation skills is crucial when managing a victim of cardiac arrest. Lack of knowledge and skills among health care professionals has been identified as a contributing factor in poor outcomes.

Objectives

To assess the knowledge regarding ALS among the Medical and Nursing officers in a District general hospital.

Methods

An institutional-based descriptive cross-sectional survey was conducted from December 2022 to January 2023. Standardized Self- administered questionnaire was distributed and completed by the medical and nursing officers. Data was analyzed by using Epi Info 7.2. software.

Results

There were 202 responders with 71% of them having previous ALS training. The mean score for those who had prior ALS training was 59.34 % and for those who haven't got ALS training was 58.15%. When divided by the working environment (High risk / Low risk for cardiac arrest), 43% of the sample were in high-risk areas and had a mean score of 63.51%. Those working in low-risk environments had a mean score of 55.6%. When statistically analyzed; those working in high-risk areas had a better knowledge compared to low-risk areas. (P<0.05) There was no significant effect on previous ALS training on the current knowledge (P>0.05).

Conclusion

Knowledge regarding ALS fades out with time and needs regular updating. Those who are working in high-risk areas have better knowledge due to frequent exposure to cardiac arrests. A regular refresher course is justifiable at the institutional level to maintain adequate knowledge of ALS.

Key words: *ALS knowledge, skills, Cardiac arrest*

PP176

Knowledge, attitudes, and practices about first aid given for childhood injuries among mothers of preschool children in Ragama MOH area, Sri Lanka

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Introduction
Children under 5 are the most vulnerable group for unintentional injuries and mothers as the main prehospital caregivers it is vital to have first aid knowledge for common childhood injuries.

Objectives
To assess the existing knowledge about first aid given for unintentional injuries such as burns, cut injuries, poisoning, choking, drowning & fractures and their attitudes, and practices in providing first aid and to find associated factors with knowledge.

Methods
A descriptive cross-sectional study was conducted in the Ragama MOH area, in 2022. 343 mothers were recruited from 12 preschools, using the cluster sampling method. A self-administered questionnaire was distributed, data were analysed using SPSS software and associations were analysed using the Chi-Square test, ($p<0.05$ -significant)

Results
Most of the mothers were young housewives and their knowledge was overall inadequate at first aid. (54.2%) The highest median score was obtained for questions on fractures 3.732 (SD ± 1.454) and the lowest for cut injury 2.752 (SD ± 1.2187). The majority (89.5%) knew the ambulance contact number. Only 47.2% of the mothers had given first aid in an emergency and out of them 67.9% had felt tense while doing so. Most had provided first aid for burn injuries (18.7%).

Conclusions
The majority of participants' knowledge of first aid was inadequate. Most of them had a positive attitude towards first aid and were willing to learn further. The factors associated with their knowledge were education level and their perception of their own knowledge. Most preferred a hands-on training program for knowledge acquisition.

Key words: *First aid, Pediatrics, Unintentional injuries*

PP177

Emergency Physician performed Focused Cardiac Ultrasound (FOCUS) as a tool in early diagnosis of Occlusive Myocardial Infarction (OMI) to escalate the treatment.

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Introduction
Initial evaluation of Acute Coronary Syndrome (ACS) should be prompt as the benefits of reperfusion therapy are greatest if initiated early. Due to limitations in traditional diagnostic criteria, regional wall motion abnormalities (RWMA) seen in FOCUS are emerging as an important criterion for rule-in OMI.

Objectives
To evaluate FOCUS in predicting OMI and the suitability of using it as a diagnostic tool for early reperfusion therapy.

Methods
A single-centre descriptive observational study was done in a Preliminary Care Unit (PCU) of a Base Hospital for a 3-month period. The inclusion criterion was any patients between 18 to 65 years of age presented with non-traumatic chest pain. The FOCUS was performed on admission and a 16-segment analysis model was used to interpret the ECHO findings. Coronary angiogram results were taken as the gold standard to compare.

Results
Eighty patients were eligible with 76% (n= 61) males. Sixty-one per cent (n= 49) had OMI and only 45 % (n=36) presented with ischemic chest pain. Mean door to ECHO vs door to ECG time +/_ SD was 6.3 +/-1.7 vs 9.6 +/-2.1 minutes. In contrast to ECG, RWMA had a sensitivity of 94%, specificity of 81%, NPV of 89% and overall accuracy of 87% (95% CI, 78-96). FOCUS was identified in RWMA in 90% of patients with coronary angiography-proven OMI.

Conclusions
In comparison with ECG, due to early accessibility and more sensitivity of FOCUS in predicting OMI, the presence of RWMA can use to escalate for reperfusion.

Key words: *Regional Wall Motion Abnormalities, OMI, FOCUS, ACS*

PP178

Assessing motivation to lose weight: the psychometric properties of the Sinhala version of University of Rhode Island Change Assessment (URICA) scale

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Introduction
Weight reduction through lifestyle modifications is an important component in the management of various chronic diseases. The degree of motivation to change has been shown to predict outcomes in weight reduction interventions. Thus, the availability of a validated self-report tool assessing the degree of motivation for weight management would be useful for both clinical and research purposes in Sri Lanka.

Objectives
To examine the structural validity and internal consistency of the URICA for weight management in a sample of Sri Lankan adults with chronic medical conditions.

Methods
Standard procedures for cross-cultural adaptation of a questionnaire were followed in translating the 32-item URICA into Sinhala. The Sinhala version was administered to 208 patients aged 18-60 years attending outpatient clinical services for non-disabling chronic medical diseases. Psychometric testing included confirmatory factor analysis and the assessment of internal consistency (Cronbach α).

Results
The commonly accepted four-factor structure of URICA reflecting Prochaska and Di Clemente's transtheoretical model (pre-contemplation, contemplation, action and maintenance) showed good model fit, after the removal of four items from the pre-contemplation subscale due to inadequate factor loadings (<0.4). In line with theory, factor correlations indicated that the pre-contemplation factor was inversely correlated with the other three factors, while the other three factors were positively correlated with one another. All four subscales showed good internal consistency (Cronbach α ranging from 0.73 to 0.89).

Conclusions
The Sinhala version of a modified 28-item URICA was found to have sound psychometric properties as a measure of motivation for weight management among Sinhala-speaking adult patient.

Key words: *weight loss, motivation to change, obesity, overweight, translation*

PP179

Haemodialysis status, compliance to recommendations and end of one-year outcomes among haemodialysis patients in resources-limited setting, National Hospital- Kandy

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Introduction
As expressed by experts in renal diseases in Sri Lanka, the majority of haemodialysis (HD) patients are not receiving even the minimum recommended three times per week HD.

Objectives
As such this study aimed to describe characteristics, the prevalence of non-adherence to recommended supportive treatment and outcomes in hemodialysis patients in resource-poor health settings, in Sri Lanka.

Methods
A population-based analytical cross-sectional study included 317 HD patients. Kidney Disease Quality of Life-Short Form (KDQOL-SF™) was used to assess the health-related quality of life (HRQOL). The Centre for Epidemiologic Studies Depression Scale (CES-D) and End Stage Renal Disease Adherence Questionnaire (ESRD-AQ) were used to assess the presence of depression and all components of adherence to haemodialysis by CKD patients respectively.

Results
There was a preponderance of males among the study subjects (69.4%, N=220). The screening revealed that 71.3% (N=226) of participants were depressed. A total of 232 (73.2 %) patients had good overall adherence behaviours. Multiple linear regression revealed poor educational background and the presence of comorbidities contributed significantly to poor adherence behaviours. Out of the total number of participants, 21.8% (n=69) succumbed approximately after one-year duration of the initial assessment.

Conclusion
The prevalence of depression among participants was significantly high The HRQOL of the haemodialysis patients in the study population was found to be poor. Absence of comorbidities, screening negative for depression, and being employed were found to be independently associated with better HRQOL. Adherence to haemodialysis treatment modalities is at a considerably optimum level.

Key words: *Haemodialysis, Quality of Life, treatment adherence, national hospital; Kandy*

PP180

Urinary Peptidase Inhibitor 3 could be a potential biomarker for diabetic and hypertensive nephropathy

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Introduction

Peptidase Inhibitor 3 (PI3) gene, known as elafin is a protein inhibitor. Its expression is predominantly found in kidney tubules and causes a cytokine-mediated inflammatory response in kidney injury.

Objectives

This research aims to study the gene expression pattern of the PI3 gene in chronic kidney disease (CKD) specific to different aetiology and determine the correlation of its expression with current renal markers, serum creatinine (Scr) and estimated glomerular filtration rate (eGFR).

Methods

A total of 115 urine samples were obtained from different study groups, including diabetic nephropathy (DN) (n=25); hypertensive nephropathy (HN) (n=32); CKD with both diabetes and hypertension (DH) (n=16); other cause of CKD (O-CKD) (n=22); and healthy controls (HC) (n=20). Extracted mRNA was reverse-transcribed and used for a quantitative polymerase chain reaction. A relative quantification method of gene expression analysis was used to calculate fold changes (FC) and log2 normalized fold changes (Log2Fc).

Results

The results showed that 100% and 92.6% of PI3 gene expression were seen in HC and CKD study groups, respectively. PI3 gene was significantly upregulated in both HN and DN groups compared to HC and the values were 39.22 ± 7.53-fold (Log2Fc=3.96 ± 0.59; $p<0.001$) and 25.53 ± 7.28-fold (Log2Fc=3.48 ± 0.61; $p<0.05$) respectively. Urinary PI3 gene expression was not correlated with both serum markers, Scr and eGFR in DN and HN study groups while showing a significant positive correlation in the DH study group ($r=0.61$; $p<0.05$).

Conclusions

From this study, Peptidase inhibitor 3 could be used as a potential biomarker for diabetic and hypertensive nephropathy and further validation is necessary using proteomic analysis before clinical implementation.

Key words: *Chronic kidney disease, diabetic nephropathy, gene expression, and hypertensive nephropathy*

PP181

A Systematic Review Exploring the Quality of Food and Water Consumed by People with Chronic Kidney Disease of Unknown Etiology (CKDu) in Sri Lanka

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Introduction
Chronic kidney disease (CKD) with no identifiable cause is known as chronic kidney disease of unknown aetiology (CKDu). Food and water contamination are suggestive of factors associated with CKDu.

Objectives
To systematically summarize the evidence on the quality and sources of food and water consumed by Sri Lankans with CKDu.

Methods
Four databases (MEDLINE, EMBASE, PsycINFO, and SLJOL) were searched till April 2022 for studies conducted on Sri Lankans exploring the quality of food and water consumed by the people with CKDu. Studies assessing children, pregnant women and dialysis patients were excluded. Studies that explored CKD but not specifically investigated CKDu were excluded from the review. Two reviewers completed the screening independently and the conflicts were resolved by consensus. Extracted data were narratively analysed.

Results
Of 942, 49 studies were eligible for the final analysis. Investigated food sources were commonly contaminated with heavy metals, with lead (Pb) at the higher levels. Water sources were contaminated with heavy metals, toxic anions and cations, agrochemicals, fertilizers, herbicides, glyphosate, and Aminomethylphosphonic acid (AMPA).

Conclusions
Nephrotoxic heavy metals and fluoride contamination can alter the quality of food and water which may pose a high risk in renal function of the people in Sri Lanka if consumed. Appropriate strategies to reduce the contamination of heavy metals, agrochemicals, and major ions that reduce the quality of water and food, should be urgently implemented to reduce the burden of CKDu in Sri Lanka.

Key words: *Water contamination; Food contamination; Nutrition; BMI; South East Asia*

PP183

Assessment of the degree of disability using Barthel Index and determinants of disability among acute stroke patients admitted to Teaching Hospital Karapitiya – a descriptive study

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Introduction
Introduction:
Acute stroke results in functional disability measurable using the well-known Barthel Index (BI).

Objectives
The objectives of the study were to describe the degree of disability following stroke using BI and to describe its changes from presentation up to 3 months post-stroke, among patients with acute first-ever stroke admitted to Teaching Hospital Karapitiya.

Methods
A total of 170 acute stroke patients were recruited from 07/2019 -11/2019 and their Barthel Index scores were measured at the time of presentation, and at 1 and 3 months post-stroke. The first assessment was a face-to-face encounter and 1 and 3 months assessments were through telephone interviews. The determinants of disability included stroke subtypes, age, sex, and time of measurement of disability.

Results
There were N=170 patients in the study. The mean age was 67.34 years (SD=13.43). Males N=92(54.11%) and Females 78(45.88%). N=105 (61.76%) were detected to have an ischemic stroke while N=65 (38.23%) presented with a hemorrhagic stroke. The total mean Barthel index scores at presentation, at 1 and 3 months were 22.78.(SD-30.57),63(SD-23.01) and 83.15(SD-23.10) respectively. For the patients with an ischemic stroke the Barthel index scores at presentation, at 1 and 3 months were 25.52 (SD-30.53), 61.42 (SD-28.1) and 81.72(SD-24.04) respectively. For patients with a hemorrhagic stroke, the Barthel index at presentation, at 1 month and at 3 months were 16.92(SD-28.58), 65.15(SD-30.67) and 89.64(19.33) respectively.

Conclusion
Overall, the mean Barthel Index scores showed an increasing trend from the time of presentation up to 3 months post-discharge among acute stroke patients. The age, and stroke subtypes were significant determinants of disability.

Key words: *BI-Barthel Index*

PP184

Relationship between physical activity level, depression and sleep quality of patients with Parkinson disease

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Introduction
Parkinson's disease (PD) is a neurodegenerative disorder, characterized by motor and non-motor symptoms. Non-motor symptoms, specifically, poor sleep quality and depression are considered major complications in PD. Physical inactivity is prevalent in PD. These factors impact negatively on the quality of life.

Objectives
This study aims to identify the relationship between levels of physical activity, depression and sleep quality of patients with Parkinson's disease in the Sri Lankan setting.

Methods
This descriptive cross-sectional study recruited 111 PD patients attending neurology clinics, the National Hospital of Sri Lanka. The mean age was 67.36 years. A semi-structured questionnaire, Short-Form International Physical Activity Questionnaire, Pittsburgh Sleep Quality Index, and 15-item Geriatric Depression Rating Scale were used to assess demographic data, physical activity level, sleep quality and depression respectively. Descriptive statistics and Pearson's correlation were used for analysis.

Results
Of the participants, 38.7% were physically inactive with 41.4% being "moderately" physically active. The majority (83.8%) reported poor sleep quality and 51.3% exhibited depressive symptoms. A strong positive correlation was observed (r=0.843) between poor sleep quality and depression severity. A strong negative correlation was found between the level of physical activity and depression severity (r=-0.799). A moderate negative relationship was discovered between the level of physical activity and poor sleep quality (r=-0.674).

Conclusion
Depression in PD is associated with poor sleep quality. A greater level of physical activity in PD is associated with good sleep quality and reduced depression. Hence, patients should be encouraged to achieve the recommended daily level of physical activity.

Key words: *Parkinson's, physical inactivity, non-motor symptoms*

PP186
A case of Febrile Infection-Related Epilepsy Syndrome (FIRES)

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Introduction
A 19-year-old previously healthy patient presented with Super Refectory Status Epilepticus (SRSE) following a febrile infection. Adequate immunosuppression and burst suppression were the two main therapeutic challenges. Immediate steps should be taken to minimize the irreversible brain damage in SRSE.

Objectives
To use limited resources for the best patient management in resource-poor settings.

Methods
Case Report

Results
A 19-year-old previously healthy male patient had a febrile illness one week back. On day seven of his illness, he developed status epilepticus (SE). Initial inflammatory markers, and CSF biochemical and microbiological results were normal. Non-contrast MRI-Brain showed T2 hyperintensities in bilateral caudate nuclei. Viral studies, Toxicology screen and autoimmune encephalitis antibody panel came as negative. The patient had continuous seizures irrespective of anti-seizure medications, intravenous anaesthetic agents, ketogenic diet, and hypothermia. At the time of deciding to start on intravenous methylprednisolone patient developed a hospital-acquired infection. Treatment with IVIG and eight cycles of plasmapheresis failed. Patient died following the HAP which led to septicemia.

Conclusion
SE is a common neurological emergency with considerable healthcare costs, morbidity, and mortality. Thirty percent of the SE progress to refectory status epilepticus (RSE). Twenty percent RSE are New Onset Refractory Status Epilepticus (NORSE). NORSE is a clinical presentation where we cannot find a structural, toxic or metabolic cause. The most common cause is autoimmune encephalitis. FIERS is a subset of NORSE resulting from a prior febrile infection between two weeks and twenty-four hours before the onset of RSE. Excluding reversible causes for SE and starting early immunotherapy are the main goals in managing FIERS patients to minimize irreversible brain damage.

Key words: *SE, NORSE, FIERS*