



URS 2023

Proceedings of the Sixth Undergraduate
Research Symposium

"Empowerment through Research"

Faculty of Medicine
University of Jaffna

27th of June 2023



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**Sponsored by Jaffna Medical Faculty Overseas Alumni - UK
in partnership with Jaffna Medical Faculty Alumni Association**

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Message from the Vice Chancellor



A university is not just a place of learning, but a dynamic centre where ideas are explored, research is conducted, and new frontiers are discovered. The University of Jaffna has always been committed to fostering a culture of excellence in research and academic inquiry and takes immense pride in the achievements of our scholars, who have gone on to make significant contributions to their respective fields worldwide.

The Undergraduate Research Symposium by Faculty of Medicine serves as a testament to our unwavering commitment to nurturing the research capabilities of our undergraduate students. This annual symposium provides a valuable platform for our students to showcase the research skills they have acquired during their undergraduate years. I extend my heartfelt congratulations to the staff of the Faculty of Medicine for their efforts in organizing this student research symposium.

I express my deepest gratitude to the keynote speakers for their exceptional contribution to the 6th Undergraduate Research Symposium. Your presence has truly elevated the significance and impact of this event.

To all the student researchers participating in the 6th Undergraduate Research Symposium, I extend my heartfelt congratulations and best wishes. Your hard work, dedication, and curiosity have brought you to this stage, and I have no doubt that you will continue to excel in your future endeavors. I encourage you to embrace this opportunity to engage with your peers, expand your horizons, and contribute to the advancement of knowledge in your respective fields.

Wishing you all a memorable and productive 6th Undergraduate Research Symposium.

Prof. S Srisatkunarajah
Vice Chancellor
University of Jaffna

Message from the Dean



It gives me great pleasure and congratulates the team on the 6th Undergraduate Research Symposium (URS2023) of the faculties of the Medicine University of Jaffna, Sri Lanka, on "Empowerment through Research".

The novel medical profession always depends on the quality of evidence synthesis from high-quality research. Universities are institutions primarily tasked to create knowledge and transfer learning into practice to improve human life. Undergraduates are given the opportunity to understand the fundamental aspects of the research, and the Undergraduate Research Symposium provides a platform for undergraduates to share their research findings and discuss them with colleagues, academics, and clinicians. This provides a remarkable learning opportunity for budding professionals. I hope students will continue their efforts to develop their knowledge in medical research and will make use of the knowledge in their day-to-day practice.

I sincerely thank Prof. S. Srisatkunarah, Vice Chancellor, University of Jaffna, the keynote speaker Prof. Anuradhani Kasturiratne, Professor in Public Health at the Faculty of Medicine, University of Kelaniya and all the distinguished invited speakers for their presence and contributions for gracing this occasion. I sincerely thank the Jaffna Medical Faculty Overseas Alumni (UK) for their continuous financial support to organise the event. I also thank the URS2023 Organizing Committee of the Faculties of Medicine to make the event a success.

Finally, I extend my cheerful congratulations to the student researchers and wish them a productive and rewarding experience at the 6th Undergraduate Research Symposium.

Prof. R Surenthirakumaran
Dean
Faculty of Medicine
University of Jaffna

Message from the Chairperson URS 2023



It is my great privilege and pleasure to convey this message to the proceeding of the 6th undergraduate research symposium 2023 of the Faculty of Medicine University of Jaffna. The undergraduate research symposium has been conducted every year since 2018 and reached the 6th symposium this year.

Knowledge dissemination is a key responsibility of the universities. The annual undergraduate research symposium is an important event in the academic calendar as it disseminates new knowledge created in the field of medicine by medical undergraduates. This year's theme "Empowerment through research" indicates that the involvement in research will give more confidence to medical students.

The so-called 4C's of 21st century learning skills include critical thinking communication, collaboration, and creativity. Research will enhance all these skills. The undergraduate research symposium provides a platform for the medical students to master these skills. This year there are twenty-eight research presentations addressing the current health issues.

On behalf of the organizing committee of URS2023, I take this opportunity to thank the Vice-chancellor of University of Jaffna, and Dean Faculty of Medicine for their fullest support in organizing this important event. I express my gratitude to the keynote speaker Prof. Anuradhani Kasturiratne, Professor in Public Health, Faculty of Medicine, University of Kelaniya who has excelled in research. Listening to a person with such high caliber would be great inspiration to our students. I am also grateful for the generous financial support extended by the Jaffna Medical Faculty Overseas Alumni – United Kingdom in partnership with the Medical Faculty Alumni Association.

I deeply appreciate and sincerely thank the support rendered by members of the organizing committee, academics, extended faculty, and administrative and supporting staff of the Faculty of Medicine.

Last but not least, I congratulate the students who are the heroes of this occasion for achieving this accomplishment and making 6th Undergraduate Research Symposium a successful event.

Dr. Nirubaa Umasankar
Chairperson, URS 2023
Faculty of Medicine
University of Jaffna

ORGANISING COMMITTEE URS 2023



ORGANISING COMMITTEE MEMBERS, URS 2023

Dr. N. Umasankar, Senior Lecturer, Department of Paediatrics (Chairperson, URS 2023)
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Dr. K. Majure, Demonstrator, Department of Pediatrics
Dr. R. Sinthuja, Demonstrator, Department of Pediatrics

Students Members (43rd batch):

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B. A. Kamali Gayahansi Ranasinghe
Tharusha Dewmini Wijesinghe
Madara Dewmini Samaraweera
L. B. Dasunika Thathsarani
Arathe Ilango
Clare Stephi Kingsly Robert
Thamilinba Nagapatham
S. Emmanuel Malaravan
Y. Mayooran
P. Niruthigan
Edwin Joy Vithushan

PROGRAMME AT GLANCE**June 27, 2023**

08.00	Registration
08.30	Inauguration
08.35	Welcome Address by the Chairperson, URS 2023
08.40	Address By the Dean, Faculty of Medicine, University of Jaffna
08.55	Address by the Vice Chancellor, University of Jaffna
09.15	Keynote Address Prof. Anuradhani Kasturiratne
09.45	Symposium Proceedings
09.55	Research Awards: 40 th Batch
10.30	Vote of Thanks
10.45	TEA
10.45	Parallel Sessions
12.45	LUNCH
13.30	Awarding Ceremony

CHAIRPERSONS AND JUDGERS

Venue	Chairpersons	Judgers
Hoover Auditorium Session 1: Practices and implications	Dr. V. Sutharshan, Consultant Surgeon, Teaching Hospital Jaffna Dr. S. Udhayakumar, Senior Lecturer in Anatomy, University of Jaffna	Prof. K. Muhunthan, Professor in Obstetrics & Gynaecology, University of Jaffna Dr. R. Sivaranjini, Consultant Physician, Base Hospital, Point Pedro
Lecture Hall 1 Session 2: Perceptions and implications	Prof. S. Kannathasan, Professor in Parasitology, University of Jaffna Dr. G. Nanthini, Consultant Physician, Teaching Hospital Jaffna	Dr S. Kumuthini, Senior Lecturer in Pharmacology, University of Jaffna Dr. B. Nishahan, Consultant Physician, Base Hospital, Tellipalai
Conference Hall Session 3: Prevalence and implications	Dr. G. Selvaratnam, Senior Lecturer in Medicine, University of Jaffna Dr. S. Ghetheeswaran, Consultant Physician, Teaching Hospital Jaffna	Dr. G. Yalini, Senior Lecturer in Pharmacology, University of Jaffna Dr. R. Gajanthan, Consultant Physician, Teaching Hospital Jaffna

LIST OF REVIEWERS**Faculty Reviewers**

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Prof. S. Sivayokan, Professor Department of Psychiatry
Prof. T. Kumanan, Professor, Department of Medicine
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Dr. N. Umasankar, Senior Lecturer, Department of Paediatrics
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Dr. V. Ambalavanar, Senior Lecturer, Department of Microbiology
Dr. R. Kumar, Senior Lecturer, Department of Community & Family Medicine
Dr. V. Sujanitha, Senior Lecturer, Department of Medicine
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Dr. G. Rajeev, Registrar, Department of Community & Family Medicine
Dr. G. Yalini, Lecturer, Department of Pharmacology
Dr. Jathavani Mario Maznet Theepan, Lecturer, Department of Pathology
Dr. P. Thurka, Lecturer, Department of Biochemistry

External Reviewers

Dr. M. Aravinthan, Consultant Endocrinologist, Teaching Hospital, Jaffna
Dr. T. Umaharan, Consultant Psychiatrist, Base Hospital, Tellipalai
Dr. R. Nalayini, Consultant Physician, Teaching Hospital, Jaffna
Dr. S. Sivaganesh, Regional Epidemiologist, Department of Health, Northern Province
Dr. S. Giritharan, Consultant Surgeon, Teaching Hospital, Jaffna
Dr. T. Gandeepan, Senior Registrar in Medical Administration, Management Development and Planning Unit, Ministry of Health
Dr. V. Thusyanthan, Consultant Gastroenterological Surgeon, Teaching Hospital, Jaffna
Dr. R. Rajanthi, Consultant Microbiologist, Teaching Hospital, Jaffna
Dr. S. Thuvaraga, Additional MOH, Nallur
Dr. J. Mathanraj, Teaching Hospital, Jaffna

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ABSTRACTS OF URS 2023

Abstract 1

Dietary habits and their association with socio-demographic and economic factors and BMI status among medical students of Faculty of Medicine, University of Jaffna

Vethanayagam AJ¹, Somachandra KPDM¹, Selvarajah S¹, Naseela MNF¹, Mashoor N¹, Rajeev G², Surenthirakumaran R²

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Background: Nutrition is a critical determinant of the development and performance of youth. Due to busy lifestyles and increased availability of processed food, people fail to pay attention to a healthy diet. Therefore, this research intended to assess the dietary habits among the medical students.

Objective: To assess the dietary habits & their association with socio-demographic, economic factors and BMI status among medical students of the Faculty of Medicine, University of Jaffna.

Methods: A descriptive cross-sectional study was carried out from May 2021 to November 2022 among 381 medical students selected by proportionated stratified random sampling. Data were collected using a self-administered questionnaire including self-reported height and weight to calculate the BMI and analysed using SPSS (V21). Frequencies and proportions were used to describe dietary habits, associated socio-demographics, economic factors, and BMI status. Association with the factors was determined by the chi-square test ($p = 0.05$).

Results: Response rate was 89.43%. Majority were female (60.6%), 20-23 years of age (47.2%), and 39.4% were in the preclinical phase. The majority of students' daily consumption of starchy food (57.2%) and dairy products (66.4%) was adequate, but that of vegetables (82.7%), fruits (67.5%), protein-rich food (77.7%), nuts (95.3%) and water (52.8%) was inadequate. Most of them ate snacks

(85%), had tea or coffee (81.4%), sweetened drinks, (76.9%) and fast food (87.1%) between meals. Consumption of starch was relatively more (45.9%) among Sinhalese while that of nuts and dairy was relatively more among Tamils. The majority (69.6%) was normal in BMI and there was no significant association between BMI and the selected factors, except for sex being male (57.8%) to be considered as a risk factor for being overweight.

Conclusion: Although with normal BMI, the majority of participants' consumption of most of the categories of food items is insufficient according to the food-based dietary guidelines (2nd edition) published by the Nutrition Division of the Ministry of Health. So, more education and opportunities should be provided for healthy diet practices, especially for males.

Keywords: Dietary habits, BMI status, Food based dietary guidelines.

Abstract 2

Growth monitoring practices and associated factors among infants in Jaffna Municipal Council Medical Officer of Health area: Prior to and during the Covid-19 pandemic

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Background: A sudden emerging collapse in the growth monitoring of children's growth parameters such as weight-for-age, length/height-for-age and weight-for-length which might have affected children's well-being worldwide during this Covid-19 pandemic.

Objective: To describe the growth monitoring practices and associated factors among infants in Jaffna Municipal Council MOH area prior to and during Covid-19 pandemic.

Methods: This analytical cross-sectional study was carried out in the Public Health Midwife Offices among 652 infants born between 2018 March and 2021 March using systematic sampling method. Data were collected using a Data Extraction Form and entered into EpiData 3.1 software. Descriptive and inferential statistics were performed using SPSS software. Growth monitoring practices were measured with frequency of anthropometric measurements such as weight, length/height. Weight is measured monthly up to 2 years and then every 3 months. Length is measured at 2, 4, 6 and 9 months and then every 6 months.

Results: Out of 652 infants, 51.9% (n=338) were males 48.1% (n=314) were females. Weight monitoring is comparably higher than height monitoring prior to and during Covid-19 pandemic. During Covid-19 weight monitoring and length monitoring coverage has been reduced from 94.8% to 66.9%, from 93.9% to 72.5% respectively. There was significant reduction in growth monitoring coverage (weight by 27.9%, length by 21.4%) in contrast to our assumption of both parameters' reduction by 10%. The utilization of weight monitoring services was associated with birth order of child, mother's educational level and PHM's age. The utilization of length monitoring services was associated with birth order of the child, PHM's work experience and educational level regardless of the Covid-19 status ($p < 0.05$).

Conclusion and recommendations: The overall coverage of growth monitoring has been reduced during Covid-19. Therefore, there is a need to strengthen growth monitoring during infancy in pandemics. Here we suggest to encourage and educate both parents and improved training to PHMs. Effective growth monitoring would aid in the early detection of malnutrition, making corrective interventions simple, timely, and effective, allowing all children to reach their growth to their highest potential.

Keywords: Medical Officer of Health, Public Health Midwife, Weight-for-Age Z-score,

Length-for-Age Z-score, Weight-for-Length Z-score.

Abstract 3

Type of bleeding, endoscopic findings and associated factors in assessing rebleeding and mortality among patients with upper gastrointestinal bleeding attended Endoscopy unit, Teaching Hospital, Jaffna

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Background: Upper Gastro-Intestinal bleeding (UGIB), bleeding from sources above ligament of Treitz, is a common reason for urgent hospitalizations. Haematemesis, melena, and coffee ground vomiting are the common manifestations of UGIB.

Objectives: To determine the type of bleeding, endoscopic findings, outcome, and associated factors among patients with UGIB attended endoscopy unit Teaching Hospital, Jaffna.

Methods: A descriptive cross-sectional study was carried out in the Endoscopy unit and Bed Head Ticket (BHT) room in Teaching Hospital, Jaffna based on secondary data of 419 patients underwent upper gastrointestinal endoscope for UGIB in Endoscopy unit in Teaching Hospital, Jaffna from 1st January 2020 to 31st December 2021. Data of all eligible participants were collected from BHTs using Kobo-Collect mobile app and analysed using Chi-square test and independent t-test in SPSS.

Results: Out of 419 patients, 67.1% presented with melena. In this study, 69.5% were males and 55.8% were more than 59 years of age. 55.6% had non-portal hypertensive bleeding and among them 39.1% were due to stomach ulcer. 30.3% had portal hypertensive bleeding resulted from oesophageal varices. 92.6% had no adverse outcome, 4.8% had rebleeding, and 1.4% had died. Patients with a higher Rockall

score ($p < 0.001$), liver failure ($p = 0.012$) and disseminated malignancy ($p = 0.009$) and patients who had taken steroids ($p < 0.001$) had a higher prevalence of adverse outcomes. Patients who underwent therapeutic endoscopy ($p < 0.001$) and surgical intervention ($p < 0.001$) had a high rate of adverse outcome. The outcome was not associated with sex ($p = 0.305$), age ($p = 0.796$), cardiac diseases ($p = 0.196$), renal failure ($p = 0.618$), NSAIDs ($p = 0.741$), smoking ($p = 0.60$) and alcoholism ($p = 0.283$).

Conclusion: Majority of the patients presented with melena and according to endoscopic findings, more than half had non-portal hypertensive bleeding. Majority had no adverse outcome and there was a significant association with liver failure, disseminated malignancy, Rockall score, steroids, therapeutic endoscopy, and surgical intervention with outcome.

Keywords: Upper gastrointestinal bleeding, Haematemesis, Melena, Coffee ground vomiting

Abstract 4

Knowledge of diabetic foot ulcers and self-foot care and associated factors among diabetic patients followed up at the Diabetic Centre, Teaching Hospital, Jaffna

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Background: Diabetes is a major health issue among the world population. It causes several complications. Diabetic foot ulcer is one of the complications which can be prevented by self-foot care.

Objectives: The study aims to assess the knowledge of diabetic foot ulcers and self-foot care and the association of socio-economic

factors and disease-related factors with them among diabetic patients followed up at Diabetic Centre, Teaching Hospital, Jaffna.

Methods: A descriptive cross-sectional study was conducted with 216 systematic randomly selected diabetic patients visiting the Diabetic Centre, Teaching Hospital, Jaffna. An interviewer-administered questionnaire was used to assess the knowledge by a scoring system. Data was analysed using SPSS version-26 and the Chi-squared test was used to analyse the association of knowledge with socio-economic and disease-related factors.

Results: Of the 216 participants, 148 (68.5%) had adequate knowledge on diabetic foot ulcers and self-foot care. Being a female (p -value= 0.049), studied up to G.C.E A/L (p -value= 0.003) and getting middle income (p -value < 0.05) were associated with good knowledge which were significant at p -value 0.05. There was no significant association between age, marital status, and occupation with the level of knowledge. Disease-related factors such as duration of being diagnosed with diabetes, past history of foot ulcers, past history of amputation, and regular clinic follow-up had no significant association with the level of knowledge.

Conclusion: We need to educate with a better education programme to improve knowledge on diabetic foot ulcers and self-foot care focusing mainly on males, low- and high-income people, and people studied below G.C.E A/L and higher studies.

Keywords: Knowledge, Diabetic foot ulcers, Self-foot care

Abstract 5

Effectiveness of an educational intervention to improve the protective factors that contribute to disease progression among patients with chronic kidney disease attending the Nephrology Unit, Teaching Hospital, Jaffna

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Background: Health education is an important part in retarding the disease progression of chronic kidney disease (CKD). There is lack of studies on effectiveness of educational intervention to improve the protective factors among patients with CKD in the Northern Province.

Objectives: The objective of this study was to determine the effectiveness of an educational intervention to improve the protective factors that contribute to disease progression among patients with chronic kidney disease attending the Nephrology Unit, Teaching Hospital, Jaffna.

Methods: This was a quasi-experimental study conducted among 85 participants who were attending regular clinic follow up at nephrology clinic Teaching Hospital, Jaffna from May to August 2022 by using interviewer administered questionnaire. Participants were educated by using a pamphlet designed by investigators with supervision of supervisors. Data was entered in EpiData and analyzed in SPSS.

Results: Our response rate was 94.12%. Among 85 study participants, 57.6% (n=49) were males and 42.4% (n=36) were female participants. Most of the participants were married and school educated. The mean age of our study population was 57.12 years. Among 85 participants only 80 participants completed the post-test. Knowledge of the study population about CKD disease was improved from 58.5% (mean of the pre-test knowledge score) to 92.3% (mean of the post-test knowledge score). Attitude among the study population about CKD disease was improved from 70.1% (mean of the pre-test attitude score) to 94.5% (mean of the post-test attitude score). Pre-test and post-test score (sum of the

knowledge and attitude score) in paired sample test was significant ($p < 0.001$).

Conclusion: In our study, the knowledge score is improved from 58.5% to 92.3% after the educational intervention. This suggests that the educational intervention was effective in improving knowledge of the protective factors contribute to disease progression among patients with CKD.

Keywords: chronic kidney disease (CKD), health education, educational intervention.

Abstract 6

Knowledge and attitude on the use of face masks among patients in General Medical wards during the COVID-19 pandemic at the Teaching Hospital, Jaffna

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Background: The proper utilisation of face masks helps to prevent droplet-transmitted diseases. World Health Organization and the Sri Lankan government also recommended wearing the appropriate face masks to reduce the risk of COVID-19 transmission.

Objectives: To assess the knowledge and attitude on the use of face masks and their association with socio-demographic factors among patients in the General Medical wards of the Teaching Hospital, Jaffna during the COVID-19 pandemic.

Methods: A hospital-based descriptive cross-sectional study was carried out from May 2021 to December 2022 using the data collected from April 2022 to June 2022 among 431 general medical wards' patients in Teaching Hospital Jaffna using an interviewer-administered questionnaire and analyzed

using SPSS 20th version. Descriptive statistics and chi-square tests were performed.

Results: Out of 431 the majority were females (58.9%), with the more significant proportion (50.8%) in the 18 to 44-year age group. 72.4% of the participants had good knowledge, but only 45% had a good attitude. Both were lower compared to the reported levels in other global studies. Good knowledge was associated with being currently employed, having a monthly family income greater than Rs.17 000/=, being educated up to A/L and above, and being vaccinated for Covid-19, which were significant at the P-value of 0.05. Attitude was associated with males, age group 18 to 44 year, currently employed, educated up to A/L and above, and vaccinated for COVID-19 ($P < 0.05$). A good attitude was associated with good knowledge, which was significant at P-value 0.05.

Conclusion: Devising an efficient method to improve knowledge considering the factors associated with knowledge could also improve the attitude toward the usage of face masks for the prevention of COVID-19.

Keywords: Face mask, Droplet-transmitted disease, COVID-19

Abstract 7

Relationship between pregnancy craving and gestational diabetes mellitus among the pregnant women admitted to the obstetric wards of Teaching Hospital, Jaffna

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Background: Gestational diabetes mellitus (GDM) is a most common medical complication arising during pregnancy due to glucose intolerance, which is commonly identified during the second or third trimester of pregnancy, also causes both maternal and foetal adverse outcomes.

Objective: To determine the relationship between pregnancy craving and the Gestational Diabetes Mellitus (GDM) among pregnant women who were admitted to the obstetric wards of Teaching Hospital, Jaffna (THJ).

Methods: This was a hospital based cross-sectional analytical study conducted among 300 pregnant women between 34 and 40 weeks of Period of Amenorrhea (POA). An interviewer-administered questionnaire was used to collect the data. SPSS software (v25) was used to analyse the data. Chi-square test was used to find out the relationship between categorical variables.

Results: Among the participants, Tamil, housewives, Hindus, participants with education level above O/L were 100%, 86.3%, 72.3%, and 72% respectively. Prevalence of GDM was 30.3% (n=91). Among the participants, 27% (n=76) had sweet craving during the pregnancy period. Sweet craving was found in 38.5% (n=30) of GDM women and 22% (n=46) of Non-GDM women which was statistically significant ($p = 0.003$). Salt craving among GDM women was 24.2% (n=22) and among Non-GDM women 25.8% (n=54) and this difference is statistically not significant ($p = 0.76$). Craving for starch among GDM women was 27.5% (n=25) and among Non-GDM women 17.8% (n=37) and this difference is statistically not significant ($p = 0.057$). Savour craving among GDM women was 49.5% (n=45) and among Non GDM women 51.2% (n=107) and this difference is statistically not significant ($p = 0.781$).

Conclusion: Craving for salty food did not have a significant association with GDM, while craving for sweet food had. There was a significant association between sweet craving and GDM. There is no association with salty, starchy and savoury items.

Keywords: Food craving, Pregnancy, GDM, Teaching Hospital, Jaffna

Abstract 8**Characteristics of colonoscopies performed in the Professorial Surgical Unit, Teaching Hospital, Jaffna: A descriptive cross-sectional study**

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Background: Colonoscopy is a common procedure used for diagnosing and treating colon and small intestine abnormalities.

Objectives: This study aimed to assess the indications, findings, completion rate, and complications of colonoscopies performed at the Professorial Surgical Unit, Teaching Hospital, Jaffna.

Methods: This descriptive cross-sectional study analysed data from 303 patients who underwent colonoscopy at the Professorial Surgical Unit during 2020-2021 were extracted from Bed-Head-Tickets and Colonoscopy reports using a data extraction form and analyzed using SPSS. Data was collected from all individuals who underwent colonoscopy within the specified period due to limited sample availability.

Results: Among the 303 patients, 155 (51.2%) were male, and the mean age was 58.25 (SD=14.34) years. The most common presenting complaint was abdominal pain (44.9%, n=136) followed by constipation/loose stool (24.4%, n=74) and rectal bleeding (16.2%, n=49). The primary indications for colonoscopy were unexplained persistent abdominal pain (44.2%, n=134), constipation/loose stool (22.1%; N=67), and rectal bleeding (16.5%, n=50). The most frequent finding was normal results (70.5%, n=220) followed by growths (5.4%, n=17) and polyps (4.5%, n=14). Presence of abnormal findings during colonoscopy was 6.7 times higher in patients with rectal bleeding than patient without rectal bleeding. Successful caecal intubation

was achieved in 229 (75.6%) of cases. In 208 (90.8%) cases out of total successful intubation, visualized landmarks were not mentioned specifically. In the remaining cases, in ileum (7.9%) and ileocecal valve (1.3%) were visualized. There was only a solitary instance of rectal bleeding reported as a complication subsequent to the procedure. The complication was assessed and classified as Grade II according to the Clavien-Dindo classification, indicating effective management.

Conclusion and recommendation: Although unexplained persistent abdominal pain was the leading indication for colonoscopy, most patients had normal findings. However, patients presenting with rectal bleeding had a higher likelihood of abnormal findings, despite an increased risk of procedural failure. While 70.5% of colonoscopies showed normal findings, further studies are needed to determine their necessity to avoid unnecessary procedures. Establishing a new set of guidelines that outline the criteria, specific indications, and severity for determining the need for colonoscopies would yield significant benefits.

Keywords: Colonoscopy, Jaffna, Caecal intubation, Landmark, Criteria

Abstract 9**Incidence, pathological stage, histological type, and association of socio-demographic factors on the incidence of oral, pharyngeal and oesophageal cancers reported at the Teaching Hospital, Jaffna**

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Background: Oral, pharyngeal and oesophageal cancers are more common in the Northern Province. It is very important to have knowledge on the incidence of these cancers

and associated socio-demographic factors to improve the quality of service.

Objectives: This study aimed to determine the incidence of cancers in oral, pharyngeal and oesophageal regions reported by the histopathology laboratory of the Teaching Hospital, Jaffna from 2019 to 2021, their pathological stage and histopathological type at the time of diagnosis and their association with socio demographic factors.

Methods: An institution-based descriptive cross-sectional study was carried out among 813 patients' pathological reports using a data extraction sheet containing questions developed according to research objectives and literature review. Data were entered in SPSS version 21. Significance of socio-demographic factors on cancer was assessed using the chi-square test.

Results: The study was carried out in main three regions, where a total number of 813 cancer cases were reported. The number of cases reported in 2019, 2020, and 2021 was 312, 238, and 263 respectively. Among the three regions, the highest incidence was in the oral region (47.5%, n=386) followed by esophagus (29.6%, n = 241) and pharynx (22.9%, n = 186). Most of the oral cancer cases were diagnosed at pathological stage 1 (44.8%), whereas the pharynx (57.2%) and oesophagus (65.3%) were diagnosed at later stages of the disease. Irrespective of the region, the most common histopathological type at the time of diagnosis was squamous cell carcinoma (90.2%, n = 734). All three regions showed higher incidence in male sex (75.3%, n=612), age group ≥ 60 (63.2%, n = 508) and Jaffna district (91.1%, n=732). The most common site reported in oral region was cheek mucosa (23.9%) and showed association with male sex ($p=.005$), age group ≥ 60 ($p<.001$) and Jaffna district ($p<.001$). Common site reported in pharyngeal region was anterior epiglottis (29.6%) which showed an association with male sex ($p=.003$). Oesophageal cancer was reported commonly at lower third of oesophagus (35.7%) and not otherwise specified sites (37.7%) and showed association

with male sex ($p<.001$), age group ≥ 60 ($p=.005$) and Jaffna district ($p<.008$).

Conclusion and recommendation: A high incidence of upper GI cancer predominantly in males was observed at Jaffna district. A considerable proportion of cancers are reported in the late stage. There is a need to establish planned early detection programme.

Keywords

Oral, pharyngeal and oesophageal cancers, Northern Province, Oral cavity, Pharynx, Oesophagus

Abstract 10

Pre-hospital delays after acute ischaemic stroke in patients who did not receive thrombolysis: A hospital-based study in Northern Sri Lanka

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Background: Stroke is a leading cause of morbidity and mortality. Thrombolysis remains an effective treatment for patients who arrive at the hospital within the 4.5-hour window period.

Objective: This study describes delays in hospital arrival, associated socio-economic factors, and self-reported reasons for delay amongst patients with acute ischaemic stroke (AIS) who did not receive thrombolysis at the Teaching Hospital, Jaffna (THJ).

Methods: A hospital-based analytical cross-sectional study was conducted at the medical wards of THJ. Consecutive sampling was used to recruit all patients who presented with AIS and did not receive thrombolysis. Data were collected at the bedside from patients or their bystanders during a three-month period (May to August 2022). Delayed arrival was defined

as >4.5 hours. Data were analyzed using SPSS (v20) with standard descriptive statistics, chi-square test, and Fisher's exact test (critical level 0.05).

Results: Of 105 participants, most were males (60%), ≥ 60 years (73.4%) without O/L qualifications (61.5%), and residing ≤ 50 km from THJ (73.3%). Over two-thirds (69.5%) presented first to another healthcare facility; half (53.3%) were transferred by ambulance to THJ. The mean arrival time was 23.5 (SD 32.5) hours after the onset of symptoms (median of 13.8 (IQR 5.1-29.8) hours); a large majority (80%, n=84) arrived after the window period of 4.5 hours. Greater distance from THJ ($p=0.003$), being transferred ($p=0.04$), and presenting to another facility ($p=0.003$) were significantly associated with delays. Age group, gender, marital status, education level, employment status, monthly income, mode of transport, and history of stroke were not associated with delays ($p>0.05$). Common self-reported reasons for delay included waiting for symptoms to alleviate (35.2%), waiting to be taken to the hospital by a family member (14.3%), lack of transport (8.6%), and attributing symptoms to another disease (8.6%).

Conclusion: The results suggest that delayed hospital arrival is a barrier to receiving thrombolysis. Improving stroke facilities in remote areas and raising public awareness regarding stroke symptoms and the 4.5-hour window period may empower patients to seek early treatment.

Keywords: Acute ischaemic stroke, Delays, Window period, Thrombolysis, Jaffna

Abstract 11

Prevalence of urinary symptoms and awareness on prevention of urinary tract infection among pregnant women at obstetrics wards, Teaching Hospital, Jaffna

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Background: Urinary tract infection (UTI) is defined as "the establishment and multiplication of micro-organisms within the urinary tract". Pregnant women are more susceptible to acquire UTI. Untreated UTIs during pregnancy are associated with an increased risk of severe complication to both the mother and the fetus. Therefore, it is essential to detect early and treat promptly to reduce complications. Further, appropriate knowledge about UTI among pregnant women may also contribute to the early detection and prevention of UTI.

Objective: To determine the prevalence of urinary symptoms, knowledge on prevention of UTI, and factors associated with urinary symptoms among pregnant women at the obstetrics wards, Teaching Hospital Jaffna.

Methods: This was a descriptive cross-sectional study carried out using an interviewer-administered questionnaire. 251 pregnant women of all three trimesters were recruited. The knowledge regarding UTI was assessed by using a scoring system to decide whether the participant's knowledge was "Good", or "Average", or "Poor". Data were analyzed using SPSS and bi-variable analysis was done using the chi-square statistical test.

Results: The most prevalent urinary symptoms were frequency (86.5%, n=217), nocturia (83.7%, n=210) and urge urinary incontinence (31.5%, n=79). Awareness on prevention of UTI was assessed through their knowledge. Among them, 27.9% (n=70) of participants had good knowledge and 60.3% (n=151) of them had average knowledge regarding UTI. There was a significant association between urinary symptoms and pre-pregnancy BMI ($X^2=7.76$, df=3, $p \leq 0.05$) and previous history of UTI ($X^2=11.70$, df=1, $p=0.001$). Even though urinary symptoms worsen with trimester physiologically, in our study there was no

association between trimester and urinary symptoms.

Conclusion: The majority of pregnant women were suffering from frequency and nocturia. Pre-pregnancy BMI and previous history of UTI showed significant association with urinary symptoms. Educating pregnant women during antenatal and pre-conception periods regarding urinary symptoms and UTI via Public Health Midwife or Medical Officer of Health in clinics and antenatal classes would help to overcome the knowledge gap and promote the self-reporting of urinary symptoms.

Keywords: Urinary tract infection, Lower urinary tract symptoms, Pregnant women, Teaching Hospital Jaffna

Abstract 12

Computer vision syndrome and its association with the pattern of digital screening among medical students, Faculty of Medicine, University of Jaffna

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Background: Computer vision syndrome (CVS), also referred to as digital eye strain, describes a group of eyes- and vision-related problems that result from prolonged digital screen usage. It is one of the most common eyes-related disorders among all groups of population who are dealing with digital screens, which is highly increasing nowadays.

Objective: This study aims to determine the prevalence of computer vision syndrome and its association with the pattern of digital screening among medical students, at the Faculty of Medicine, University of Jaffna.

Methods: An institutional descriptive cross-sectional study was conducted among medical students from the Faculty of Medicine,

University of Jaffna. A stratified proportionate sampling was used and a self-administered questionnaire was used to collect data. CVS was diagnosed with a single symptom severity score and its association with digital screening pattern was analysed using SPSS version 21. The significance of association was assessed using the chi-square test.

Results: In total, 378 students participated in the study. Out of them, the majority were female (61.9%). All the participants had an exposure to the digital screens. The prevalence of CVS among the participants was 24.3%. Relatively equal proportion of male 32 (22.2%) and female 60 (25.6%) had CVS. Presence of CVS had significant association with using screen filters or blue ray spectacles, taking breaks while using digital screens, having a habit of intentionally looking at a distance and keeping eye level. Out of participants who had the habit of taking breaks, CVS was present in 79 (26.7%) likewise, using screen filter was 51 (30.9%), having the habit of intentionally looking at a distance while taking breaks was 50 (20.7%) and keeping at eye level while using devices was 47 (27.5%).

Conclusion: The prevalence of Computer Vision Syndrome among the participants was 24.3%. The effect of CVS can be minimized by adjusting the work area and digital screen according to comfort vision, developing the habit of taking breaks and looking intentionally at far distances while using screens and avoiding learning with softcopies or digital for long time. The association of the factors could be affected due to the temporality in nature which have the relationship with time. It is good to carry out the study with the study design which could eliminate the effect of temporality.

Abstract 13

Selected epidemiological factors of confirmed COVID-19 cases reported to the Jaffna MOH

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Background: COVID-19 was considered as a public health problem which is caused by SARS-CoV-2 virus. The World Health Organisation had declared COVID-19 as a pandemic disease on 11th March 2020. There were limited researches on describing the epidemiological factors of confirmed COVID-19 cases.

Objective: This study was aimed to describe the selected epidemiological factors of confirmed COVID-19 cases reported to Jaffna MOH in August and September 2021.

Methods: This was a descriptive cross-sectional study based on confirmed COVID-19 case data from Jaffna MOH. COVID-19 case investigation forms during August 1st to September 30th 2021 were used in this research as the most number of cases were reported in that period. Sample size was 1372 (whole sample). Data extraction forms were used for data collection. SPSS 21 (Statistical Product and Service Solution 21) was used to analyze the data. Results were calculated as point and interval estimates. Ethical clearance was obtained from the Ethics Review Committee, Faculty of Medicine, University of Jaffna.

Results: Out of 1372 infected population, 828 (60.3%) were males. The median age was 37 years (minimum age 1 year and the maximum of 91 years). There were 373 (27.2%) positive cases reported with comorbidities and 876 (63.8%) presented with symptoms. Significant number of positive cases were unemployed (n=589, 42.9%) and least number of positive cases were plant and machine operators and assembler (n=9, 0.7%). Significant number of positive cases were from 318 (23.2%) Bazar 1 PHI area and least number of cases 71 (5.2%) were from Kurunagar PHI area. There were 539 (39.3%) positive cases with history of visit to hospital within 7 days and among them, 433 (31.6%) had visited to Teaching Hospital, Jaffna. From the total positive cases, 630 (45.9%) positive cases had a contact history

and among those, 259 (41.1%) had a contact history in the same residence and 284 (45.1%) had a contact history in the same working place. Positive cases of 438 (31.9%) with a travelling history of 14 days and among those, 207 (43.8%) used public transport.

Conclusion: Most number of confirmed COVID-19 cases were males. More positive cases were with median of 37 years. Less number of the positive cases had comorbidities but presented with symptoms. More number of positive cases were reported from Bazar 1 PHI area.

Keywords: COVID-19, pandemic, distribution, comorbidities.

Abstract 14

Peripheral neuropathy and associated factors among patients with type 2 diabetes mellitus attending the medical clinics of the Teaching Hospital, Jaffna

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Background: Peripheral neuropathy is a common microvascular complication of diabetes mellitus that increases the potential for morbidity and disability due to ulceration and amputation.

Objectives: To determine the occurrence and severity of peripheral neuropathy and its association with selected socio-demographic, life style, and clinical factors among patients with type 2 diabetes mellitus attending the medical clinics of the Teaching Hospital, Jaffna.

Methods: This hospital-based analytical cross-sectional study was carried out among adult patients (≥18 years) attending the medical clinics of the Teaching Hospital Jaffna. Systematic sampling was used to select the

calculated sample size of 312. Data were collected from April to June 2022. The Toronto Clinical Scoring System (TCSS) was used to assess peripheral neuropathy. Frequencies, percentages, mean and median were used to describe the variables. Chi square test was used to determine the association between peripheral neuropathy and selected factors (critical level 0.05).

Results: Of 312 participants, 67.6% were >60 years, 52.9% males, and 28.8% had primary education or less. Mean (last documented) HbA1c was 8.1% (SD 1.7) with a median of 7.7% (6.8-9.2); 16.7% (n=52) were in the well-controlled range ($\leq 6.5\%$). In total, 34.9% had peripheral neuropathy; 23.4% had mild neuropathy, 8% moderate neuropathy, and 3.5% severe neuropathy. Patients >60 years ($p=0.003$) and those who had diabetes for >20 years ($p<0.001$) were more likely to have peripheral neuropathy based on the TCSS score. Sex, education level, monthly household income, body mass index (BMI), and knowing the complications of diabetes mellitus were not significantly associated with peripheral neuropathy ($p>0.05$).

Conclusion and recommendations: Over a third of patients with diabetes mellitus attending the medical clinics of the Teaching Hospital, Jaffna had TCSS scores compatible with peripheral neuropathy. Older patients with a longer duration of diabetes were more likely to have peripheral neuropathy. Early detection through routine screening and appropriate intervention are recommended to improve health outcomes.

Keywords: Diabetes mellitus, Peripheral neuropathy, Toronto Clinical Scoring System, Jaffna

Abstract 15

Prevalence of Underweight, Overweight, and Obesity and its Related Factors among the Residents of the State Elders Home, Kaithady, Jaffna

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Background: Underweight, overweight, and obesity are becoming serious public health concerns in Asian population. Dietary practices, socio economic factors, physical activity, and chronic diseases are mainly associated with nutritional status of an individual.

Objectives: This research was conducted to determine the prevalence of underweight, overweight, and obesity and to determine the association between dietary pattern, and nutritional status among the elders who were in an elders' home.

Methods: This was an institutional based descriptive cross-sectional study which was conducted among 176 residents of the elders' home Kaithady. Demographic information, dietary patterns, and clinical information were gathered using an interviewer-administered questionnaire and a check list. Height and weight were measured by the interviewers to calculate the BMI. Mini Nutritional Assessment (MNA) score was used to assess the nutritional status. Data were analyzed using SPSS software.

Results: Among the eligible participants (n=130), 19.9% are underweight, 11.4% are overweight, and 4.5% are obese. Among the study participants, 56.3% (n=99) were malnourished, 34.7% (n=61) were at risk of malnutrition, and 9.1% (n=16) are in normal nutritional status according to the MNA score. Age ($p=0.502$), and gender ($p=0.368$) were not significantly associated with nutritional status of the elders, but the physical activity ($p<0.001$) was. Type of food, portion of food that they consume during each meal, reduction of food intake, individual dietary diversity score, and duration of stay can be associated with the nutritional status of the elders.

Conclusion and recommendation: More than half of the population was found to be malnourished according to the MNA score. Physical activity showed a statistically significant association with nutritional status. This research showed the necessity of more studies among the elderly population with adequate participants, accurate measurements with relevant investigations to determine the accurate prevalence of nutritional status.

Keywords: Underweight, Overweight, Obesity, Elders, Elders' home

Abstract 16

A preliminary survey of dementia and its associated factors among elders visiting the Out-Patient Department of the Teaching Hospital, Jaffna

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Background: Dementia is a growing concern, particularly in low- and middle-income countries where health systems are yet to adapt to cater to the needs of the rapidly ageing population. Very little is known about dementia and its associated factors in Sri Lanka.

Objectives: To screen for dementia and determine its association with socio-demographic, comorbid, and lifestyle factors among elders (≥ 60 years) visiting the Out-Patient Department (OPD) of Teaching Hospital, Jaffna (THJ).

Methods: This hospital-based analytical cross-sectional study was carried out at the OPD of THJ. Systematic sampling was used to recruit the required sample size of 380 between April and June 2022. Participants were interviewed on socio-demographic characteristics, lifestyle

factors, and selected comorbidities, and underwent neurocognitive screening using the Concise Cognitive (CONCOG) test (maximum score 30; ≤ 23 positive for dementia). Severity of dementia was measured by the CONCOG score (20-23 mild, 13-19 moderate, ≤ 12 severe). Data were analysed using SPSS (v29). Chi-square test was used to determine the association between CONCOG screening status and selected factors (critical level 0.05).

Results: In total, 380 elders participated (response rate 87.1%). Mean age was 67.9 (SD 6.3) years. In the sample, 117 (30.8%) participants screened positive for dementia; most had mild (16.6%), followed by moderate (11.1%) and severe (3.2%) dementia. A positive CONCOG score was associated with being ≥ 70 years ($p < 0.001$), lower education level ($p < 0.001$), employment status ($p = 0.049$), lower number of social interactions in the past week ($p < 0.001$), higher number of household members ($p = 0.020$), and lower sleep satisfaction ($p = 0.006$). Gender, marital status, smoking/alcohol consumption, participation in social activities, and having diabetes, hypertension, dyslipidaemia, ischemic heart disease, or a history of stroke, were not significantly associated with a positive CONCOG score ($p > 0.05$).

Conclusions and recommendations: Almost a third of elders visiting the OPD at THJ screened positive for dementia. Community-based longitudinal studies are needed to determine the incidence and factors associated with dementia among elders. Prevention strategies should be developed to prevent and/or halt disease progression.

Keywords: Dementia, Cognitive impairment; Risk factors, Neurocognitive screening, Concise Cognitive Test

Abstract 17

Test anxiety and its associated factors among medical students of the University of Jaffna

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Background: Test anxiety is a set of psychological and behavioral responses due to concerns about the negative consequences of failure of tests. About 25-40% of all undergraduate students are known to experience test anxiety.

Objectives: Our study aimed to assess the level of test anxiety and its association with sociodemographic, psycho-social, and academic factors among medical students of the University of Jaffna.

Methods: A descriptive cross-sectional study was conducted among 400 first to final year medical students at the Faculty of Medicine, Jaffna. A self-administered questionnaire was used to collect data. Stratified random sampling was used to ensure proportional representation across batches. Test anxiety was measured with the Westside Test Anxiety Scale (WTAS) at three levels: mild, moderate and severe. Self-esteem, psychological distress, and social support were determined using the Rosenberg Self-Esteem Scale, Kessler Psychological Distress Scale (K-10) and Multidimensional Scale of Perceived Social Support, respectively. Data analysis was done using SPSS (v26). Chi-square test was used to assess for associations (critical level 0.05).

Results: The sample comprised 163 (40.75%) males and 237 (59.25%) females. In total, 26.07% had severe, 48.35% moderate, and 25.56% mild test anxiety. Academic batch ($p=0.035$), timing of the next exam ($p=0.034$), level of self-esteem ($p<0.001$) and level of psychological distress ($p<0.001$) were significantly associated with the level of test anxiety. Students who had an exam within one month, those with low self-esteem and severe psychological distress were more likely to record severe test anxiety. There was no association between gender, place of

residence, and level of social support, and the level of test anxiety ($p>0.05$).

Conclusions: Almost a three-quarter of students at the Jaffna Medical Faculty experience moderate to severe test anxiety. Poor self-esteem and psychological distress need to be identified and addressed early. Equipping students with a better understanding of the exam system and guiding them to have realistic goals and expectations may help them to cope with test anxiety.

Keywords: Test Anxiety, Psychological distress, Self-esteem, Westside Test Anxiety Scale

Abstract 18

The severity of nausea and vomiting and its associated factors among pregnant women in the first trimester attending antenatal clinics at the Teaching Hospital, Jaffna

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Background: Nausea and vomiting are common complaints during the first trimester of pregnancy and are known to cause discomfort and distress.

Objective: To describe the severity of nausea and vomiting in pregnancy (NVP) and its associated socio-demographic, lifestyle, and pregnancy-related factors among pregnant women in the first trimester attending the antenatal clinics of the Teaching Hospital, Jaffna (THJ).

Methods: This was a cross-sectional analytical study among first trimester pregnant women attending antenatal clinics of the THJ between April and June 2022. Data were collected using an interviewer-administered questionnaire in the clinic setting. The modified Pregnancy-

Unique Quantification of Emesis (PUQE) scale was used to measure NVP. Data were analyzed using SPSS (v20). Standard descriptive statistics and the Chi Square test were used in the analysis (critical level 0.05). NVP severity was categorized into two groups (mild, moderate to severe) in assessing the associations between selected factors and the presence of NVP.

Result: In total, 184 participants were recruited. Most were between 20 and 35 years (85.9%). Tamil, married, with at least O/L qualifications and a POA of 6 to 12 weeks were 96.7%, 98.9%, 85.9% and 85.2% respectively. In total, 78.8% of the sample had scores compatible with NVP; 51.1% had mild, 46.7% moderate and 2.2% had severe NVP. A statistically significant association was found between severity of NVP and ethnicity ($p=0.015$), education level ($p=0.008$), history of NVP ($p<0.001$), family history of NVP ($p<0.001$) and body mass index (BMI) ($p=0.007$). Being Tamil, studying <O/L, having a history of NVP, having a first-degree relative who has had NVP and being underweight / having a normal BMI were more likely to be associated with moderate to severe NVP.

Conclusion: Almost half the sample had moderate to severe NVP in the first trimester. However, pregnant women are not routinely assessed or treated for NVP in Sri Lanka. More research is needed in view of treatment with attention to the categories identified to be more prone to NVP.

Keywords: Nausea and vomiting in pregnancy, severity, Modified Pregnancy- Unique Quantification of Emesis (PUQE) scale, Jaffna

Abstract 19

Demographic and clinical characteristics features among patients with urolithiasis managed in the Genito-Urinary Clinic, Teaching Hospital - Jaffna

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Background: Urolithiasis (Urinary stones) is dangerous and can cause severe renal damage. Early diagnosis and intervention on urolithiasis are necessary to decrease economic burden and negative impact on quality of life of the patients.

Objective: The objective of this study was to describe demographic and clinical characteristics features among patients with urolithiasis managed in the Genito Urinary Clinic, Teaching Hospital, Jaffna.

Methods: This was a hospital based descriptive cross-sectional study conducted in the Genito-Urinary Clinic, Teaching Hospital Jaffna from May 2021 to December 2022 using interviewer-administered questionnaire and data extraction form. Descriptive and inferential statistics were performed using SPSS software.

Result: One hundred and thirty-seven participants were recruited in this study and sample coverage was 85.6% (137/160). Mean age of study sample was 46 years (SD 15.13). 93 (67.9%) were males. Majority of participants presented with lower abdominal pain (76.6%) and dysuria (67.9%). Ultrasound scan and serum creatinine were done in 95.6% ($n=131$) and 91.2% ($n=125$) of the participants respectively. Less than one fourth (23.4%, $n=32$) of the stones were located in vesicoureteral junction. Mean stone size was 4.4mm. Majority (68.6%, $n=94$) of the participants were surgically managed.

Conclusion: Urinary calculi were more common in males and in middle aged group. Most of the urolithiasis patients presented with dysuria and lower abdominal pain. A higher number of patients underwent surgical management.

Keywords: Urolithiasis, Urinary Calculi, Dysuria, Vesicoureteral junction

Abstract 20**Knowledge, attitude, practice, and factors associated with blood donation among medical students, Faculty of Medicine, University of Jaffna**

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Background: Blood transfusion is a vital clinical procedure used to treat a variety of medical conditions. Knowledge and attitudes play a major role towards blood donation practices.

Objective: This study aimed to determine the knowledge, attitude, practice and socio-demographic factors associated with blood donation among the medical students of the Faculty of Medicine of University of Jaffna.

Methods: An institution-based analytical cross-sectional study was conducted among 295 undergraduate students at the Faculty of Medicine of the University of Jaffna. Data were collected using a self-administered questionnaire and analyzed using SPSS version 21. Descriptive statistics were performed and Chi-square test was performed to determine the association with the critical value at 0.05.

Results: In order to assess the level of knowledge on blood donation, seven questions were asked. Level of knowledge was described as good for those who obtained 75 and above. Among the participants, 31.2% had good knowledge, 43.4% had average knowledge, and 25.4% had poor knowledge. Results of the study revealed that the mean knowledge score was 72.47% with a median of 77.78%. Most participants exhibited a favourable attitude towards donating blood when the shortage occurs, when the family needs blood, and when friends need blood. Among the participants, 69.15% had never donated blood, while 30.85% had donated blood at least once. Among the donors, 47.25%

had donated blood multiple times. The most common motivating factors for donating blood were a desire to serve society (91.2%), encouragement from the surrounding community (68.1%) and maintaining good health (44%). Significant associations were found between donating blood and situations such as family need ($p=0.050$), and friends' need ($p=0.005$). Additionally, socio-demographic factors showed significant associations with the practice of blood donation, specifically sex ($p<0.001$) and ethnicity ($p=0.015$).

Conclusions and recommendations: The findings suggest that most medical students possess average knowledge regarding blood donation. Certain socio-demographic factors also influence blood donation. While the majority of students exhibit favourable attitudes towards blood donation, their actual practice of donating blood was poor. Therefore, organizing seminars and awareness sessions on blood donation will serve as a motivational tool.

Keywords: blood shortage, ethnicity, family, friend, sex

Abstract 21**Occupational stress and associated socio-demographic, economic, and work-related factors among nurses in the Teaching Hospital, Jaffna**

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Background: Nurses are the category of staff who are very important to provide quality service to patients and their high levels of work stress can bring hazardous impact on their health and on their abilities to cope with job demand. The major contributor to job stress among nurses is the job itself. Heavy workload, repetitive work, and poor working

environment were among the stressors identified in the category of the job itself.

Objective: This study aimed to assess occupational stress and associated socio-demographic, economic, and work-related factors among nurses working in Teaching Hospital, Jaffna.

Methods: This is a descriptive cross-sectional study and the study setting was the Teaching Hospital, Jaffna. Total nursing population of Teaching Hospital, Jaffna was considered as sample. Data were collected using a self-administered questionnaire. Nursing Stress Scale (NSS), an internationally validated self-administered close ended questionnaire with 4-point scale was used to assess the level of stress among nurses. Data was entered and analyzed at a 95% confident interval using Statistical Package for the Social Sciences (SPSS) version 21. Independent sample t-test, Analysis of variance (ANOVA) and post hoc analysis and Chi-square test were carried out to assess the association.

Results: Of the seven subscales, the 'work load' (mean=2.20, SD=0.58) had the highest stress and the lowest occupational stress was in 'conflicts with physicians' (mean=1.69, SD=0.38). Among 6 sub-scales of work load, 'not enough staff to adequately cover the unit' had the highest occupational stress. Among nurses 26.1% had mild stress, 46.6% had moderate stress and 27.3% had severe stress and the distribution of occupational stress shows normal distribution. Occupational stress was found to have significant associations ($p<0.05$) between religion ($p<0.05$), professional qualification ($p<0.05$), mode of transport ($p<0.05$), relaxation techniques used ($p<0.05$), working unit ($p<0.05$), and total nursing work experience ($p<0.05$). Occupational stress of Buddhists was less than Hindus. When the professional qualification of nurses became advanced, the level of occupational stress was reduced. Nurses who worked in surgical unit and pediatric unit had greater occupational stress than those who worked in other units. When the total nursing

work experience increased, there was a significant reduction in occupational stress.

Conclusion: This study conclude that majority of the nurses had moderate and severe stress. The highest occupational stress was found in 'work load' subscale and the lowest occupational stress was found in 'conflicts with physicians'. Occupational stress was found to have significant associations between religion, professional qualification, mode of transport, relaxation techniques used, working unit, and nursing work experience. This study recommends to adopt proper relaxation techniques and to establish psychological support and counselling services to cope up with work stress. Measures to decrease the workload by increasing the staff, reducing non-nursing activities, and proper planning of duty schedules are required to reduce the work load of nurses.

Keywords: Nursing Stress Scale, Relaxation techniques, Religion, Work experience

Abstract 22

Prevalence of Shift Work Disorder and its associated factors among the Nursing Officers at the Teaching Hospital, Jaffna

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Background: Shift Work Disorder (SWD) is a circadian rhythm sleep disorder under the ICSD-10 classification. It is expressed by a persistent/ recurrent misalignment between the sleep pattern of the shift worker and the pattern that is regarded as the social norm. The vulnerability of nursing population to SWD and the lack of studies regarding SWD in Sri Lanka paved the way to conduct this study.

Objective: The aim of this study was to estimate the prevalence of SWD and its

associated factors among the nursing officers at Teaching Hospital, Jaffna (THJ).

Methods: A descriptive cross-sectional study was carried out among 259 Nursing Officers working in shifts at THJ. The participants were randomly selected. Data were collected from April to June 2022, using self-administered questionnaires. The prevalence of SWD was determined by the BSWSQ tool (Bergan Shift Work Sleep Questionnaire). Measures of central tendency, frequencies, and percentages were used to describe SWD and its associated factors. Relationships between SWD and selected factors were determined using the chi-square test and T-test.

Results: Among the 217 respondents (response rate 83.7) more than half (58.06%) were found to have SWD. Socio-demographic factors such as age ($p=0.001$), having children ($p=0.0047$), and living as an extended family ($p=0.008$) were found to have significant negative associations with SWD. Among work-related factors, service period ($p=0.0002$), current grade ($p=0.0332$), and duration of working in the current ward ($p=0.002$) were found to have significant negative association with SWD and the number of night shifts ($p=0.012$) had significant positive associations with the SWD. No significant association was found between comorbidities and SWD.

Conclusion: The prevalence of SWD is high among the Nursing Officers working at THJ. The presence of SWD varies with some socio-demographic and work-related factors. Further studies need to be done including more participants with known comorbidities.

Keywords: Sleep Quality, Nursing Officers, Teaching Hospital, Jaffna (THJ), Shift Work

Abstract 23

Quality of sleep and associated factors among medical students at University of Jaffna

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Background: Sleep is a very complicated process. Quality of sleep is an essential factor for the health of an individual. Sleep deprivation causes very harmful effects on the health of an individual. Prevalence of sleep impairment among medical undergraduates is higher than counterparts in other faculties due to several factors like complex syllabus and academic stress.

Objective: To determine the quality of sleep and the related factors among medical students at University of Jaffna.

Methods: This was an institutional descriptive cross-sectional study carried out from March 2022 to June 2022 among all the medical students from 39th, 40th, 41st, 42nd, 43rd and 44th batches who were registered and following the MBBS course during the study period. Estimated sample size was 384. Data was collected using a self-administered online questionnaire and analyzed using Statistical Package for Social Sciences (SPSS 23). PSQI (Pittsburg sleep quality index), which is a standardized international questionnaire was used in this research to assess the sleep quality of medical students. Sleep quality was ranked scores between 0-21 and considered 0-4 as good sleep quality, 5-21 poor sleep quality. Statistical tests used in this research were Chi square and independent T test. Frequency and proportions were used to describe sleep quality and social, behavioral, academic, physical and environmental factors affecting sleep. The association between sleep quality and associated factors were assessed.

Results: Total number of students participated in the research is 384. Majority (61.6%) of the sample were females while 38.4% are males. 53.5% of the students were sleeping at 10 - 11 pm. 59.3% of the students fell asleep within 15 minutes. 58.2% of the participants were having good sleep quality. Only 5% of the participants were having habitual sleep efficiency more than 90. Smoking ($p=0.003$), watching movies

($p=0.033$), late night discussions ($p =0.033$), alcohol ($p=0.002$) and type of diet ($p=0.013$) had negative impact on sleep quality. Students attending clinical appointments had better sleep quality than preclinical students. Male students were having poorer sleep quality comparing to female students.

Conclusion: This research pointed out that around 40% of the medical students participated in the research were having poor sleep quality according to PSQI. Several factors from various social, were considered. Results of the research indicated smoking, watching movies, late night discussion, type of diet had a negative impact on sleep quality. Sleep is an important aspect determining the health and performance of every human being. Therefore, it is necessary to educate medical students about the negative impact of smoking in sleep quality. More extensive research should be done in this field in order to explore in depth.

Keywords: Sleep quality, medical undergraduates, University of Jaffna

Abstract 24

Satisfaction with childbirth and associated factors among women delivering at Teaching Hospital, Jaffna

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Background: Childbirth is a significant milestone in a woman's life. Low satisfaction with childbirth may lead to inferior postnatal psychological adjustment and other negative consequences.

Objective: This study aimed to assess birth satisfaction and associated sociodemographic, antenatal, and intranatal factors among

women delivering at the Teaching Hospital, Jaffna (THJ).

Methods: A hospital-based cross-sectional analytical study was conducted among women who delivered babies by vaginal delivery in all four obstetric units of THJ between April and May 2022. An interviewer-administered questionnaire and a data extraction sheet were used to collect data. The 10-item Birth Satisfaction Scale-Revised (BSS-R), scored out of 40, was used to measure birth satisfaction (higher scores indicate greater satisfaction). Data were collected at the bedside and analyzed using SPSS (v23). T-test and one-way ANOVA were used to assess mean differences in birth satisfaction (critical level 0.05).

Results: In total, 175 mothers participated (response rate 95.1%). Majority were 19-34 years (89.1%), Tamil (97%), married (94.3%), educated \geq O/L (79.4%) and unemployed (80%). Most delivered at term (88%) by normal vaginal delivery (96.6%), had spontaneous onset of labour (65.1%), underwent episiotomy (88.6%) and did not have postpartum complications (92.5%). Mean birth satisfaction score (BSS) was 29.03 (SD 5.94; median 29, IQR 24-34). Dissatisfaction was expressed by the highest proportion regarding the extent of their involvement in decision-making during delivery (35%). Multiparous women had a higher BSS (mean=30.6, SD=5.88) compared to primiparous women (mean=27.29, SD=5.54; $p<0.001$) and those who attended \geq 3 antenatal classes had a higher BSS (mean=29.69, SD=4.95) compared to those who had less attendance (mean=28.86, SD=6.17; $p=0.026$). Mean BSS did not differ by age, ethnicity, education level, presence of antenatal risk factors, and having a companion during delivery ($p>0.05$).

Conclusion: Birth satisfaction of women who delivered at THJ is comparable to countries like Ethiopia, Iran and also the UK. Hospital staff could involve women more in decision-making during delivery. Encouraging antenatal class attendance, especially among primiparous women, may help to increase satisfaction with childbirth.

Keywords: Normal vaginal delivery, Satisfaction with childbirth, Birth Satisfaction Scale-Revised, Jaffna

Abstract 25

Psychosocial and work-related issues during the COVID-19 pandemic among nurses in the Teaching Hospital, Jaffna

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Background: COVID-19 has been a worst devastating pandemic of the recent history. Health care workers are at high risk due to unavoidable exposure to infected patients, and they faced various psychosocial and work-related issues. This study describes psychosocial and work-related issues among Nurses in the Teaching Hospital, Jaffna during the COVID-19 pandemic.

Objective: To describe the factors associated with psychosocial and work-related issues during the COVID-19 pandemic among nurses in the Teaching Hospital, Jaffna.

Methods: A descriptive cross-sectional study was carried out in the Teaching Hospital, Jaffna. The study population was total number of nurses in the Teaching Hospital Jaffna and stratified random sampling was done to ensure inclusion of nurses from all relevant units. The study tool was a self-administered questionnaire including socio demographic factors, past occurrence of COVID-19, work related factors and psychosocial issues. Data was analyzed using SPSS version 20.

Result: Total of 361 nurses aging from 20 to 60 were recruited to the study. The alteration of sleep pattern ($p=0.012$) and feeling of hopelessness and depression ($p=0.001$) differed statistically between the working units. The level of confidence in engaging with COVID-19 patients significantly differed with

the years of experience ($p<0.001$). Significant number of nurses faced discrimination by the society ($p < 0.001$) and felt for the need of psychological support ($p<0.001$). The fear of being quarantined also resulted in feeling depressed ($p=0.029$). Nurses with past history of COVID-19 infection were worried while treating patients ($p=0.027$).

Conclusion: Majority of the nurses had psychosocial and work-related issues which varied according to the working units, place of residence, working experience, social factors and past history of infection. A well-structured psychosocial intervention component for the health staff during the pandemics would address their psychosocial issues, both immediate and long term.

Keywords: COVID-19, nurses, past occurrence, socio-demographic factors, working unit

Abstract 26

The perception and associated factors in relation to attire for clinical appointments among medical students of University of Jaffna

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Background and Objectives

The attire of medical students in a teaching hospital setting influences judgment about personality, approachability, identification and has profound effect on infection prevention and control. The code of attire of medical students' inwards are being modified several times so as to suit the needs and circumstances (Example: During Covid-19 pandemic). But the perception of medical students on their attire is most of the time left unheard. Therefore, the objective was to describe the perception and associated factors in relation to attire for clinical appointments among the para-clinical

and final year medical students of the University of Jaffna in this study.

Methods: An institutional cross-sectional analytical study was conducted among 426 para-clinical and final year medical students of the Faculty of Medicine, University of Jaffna using an online self-administered questionnaire from April 2022 to June 2022 and analyzed using Chi-square test in SPSS.

Results: Among 326 (response rate= 76.9%) participants, majority were females (59.8%). Buddhists, Christians, Hindus and Sri Lankan Moors were 31%, 7.1%, 49.4% and 12.6% respectively. With regard to consume less amount of space when storing, easy to laundering, consume less time to getting ready, sustained usage, suit their physique, have sense of comfort and ease with movement and ensure uniformity among batch mates, males prefer scrubs, and formal wear with regard to comfortable with selected mode of transport, suit to climate and according to culture. Sinhala-Tamil females prefer scrub for all the above reasons. Muslim females prefer abaya for the above reasons except for storage purpose, for which they prefer scrubs. Most number of males and females have chosen scrubs with regard to preventing transmission of hospital-acquired infections and to have patients feel comfortable to discuss their confidential information with the exception of majority of the Muslim female students having preferred abaya for the latter purpose. Overall majority of males, Sinhala-Tamil females and Muslim females have chosen scrubs as the attire they prefer for clinical appointments.

Conclusion: Scrubs are preferred by the majority. Formal wear with white coat among male, sari among Sinhala-Tamil females, and abaya with white coat among Muslim females were least preferred. Medical students' choices of attire for clinical appointments were influenced only by batch ($p=0.02$). Factors such as sex, religion, ethnicity, financial status, fabric choices, laundering time, mode of transport, and physique did not influence the choice of attire.

Keywords: Perception, associated factors, student related factors, patient related factors

Abstract 27

Level of birth preparedness and complication readiness and its associated factors among women delivered at the Teaching Hospital, Jaffna

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Background: Pregnancy and childbirth are momentous events in a women's life. The World Health Organization has introduced a concept known as Birth Preparedness and Complication Readiness (BP/CR) to give adequate knowledge that might be needed in an emergency during pregnancy. Therefore, level of BP/CR and its associated factors are topics that deserve attention.

Objectives: The objective is to determine the level and factors associated with Birth Preparedness and Complication Readiness among women delivered at the Teaching Hospital, Jaffna (THJ).

Methods: An institutional descriptive cross-sectional study was conducted among 204 mothers selected from all 4 obstetric wards in the THJ using systematic sampling method (April to June 2022). Ethical approval was obtained from Ethics Review Committee, University of Jaffna. The data were collected using an interviewer administered questionnaire and a data extraction sheet. Data was analyzed using SPSS. Independent t-test and Chi-square test were performed to determine the statistical significance ($p \leq 0.05$).

Results: Among the 196 responders, mean age was 29.3 years with a standard deviation of 5.3 years. Only 35.2% mothers knew the concept of BP/CR. 168 (85.7%) participants scored 5 or

more of the total 8 components of BP/CR meaning well prepared. The most known danger signs identified by the participants were water breaks without labor (99.5%), abnormal fetal movements (99%) and vaginal bleeding (96.9%). Educational level of the mother ($p < 0.001$) and partner ($p = 0.011$), occupation of the mother ($p = 0.049$), monthly family income ($p = 0.007$), knowledge on BP/CR ($p = 0.033$), planning pregnancy ($p = 0.003$), POA of Public Health Midwife (PHM) registration ($p = 0.021$), number of PHM visits ($p = 0.042$), participation of the mother ($p = 0.031$) and the partner in ANC classes ($p = 0.021$) had a significant association with BP/CR. Factors such as age ($p = 0.298$), religion ($p = 0.836$) and number of Medical Officer of Health (MOH) clinic visits ($p = 0.752$) had no evidence of association with BP/CR.

Conclusion: Less than half of the population knew the concept of BP/CR. But more than half of the population identified more than five components of BP/CR. Attending ANC classes, planning pregnancy, early registration and ensuring visits by PHM at recommended frequency are suggested for improvement in BP/CR.

Keywords: Birth Preparedness and Complication Readiness, Maternal Mortality Ratio, Antenatal care, Public Health Midwife, Medical Officer of Health

Abstract 28

The perceived experience in clinical clerkship and the associated factors among medical students of the Faculty of Medicine, University of Jaffna during the COVID-19 pandemic

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Background: The COVID-19 pandemic had a major impact on the clinical clerkship of medical students worldwide due to the

restrictions imposed to prevent the spread of infection. Thus, the scope of its impact should be explored so as to prevent further similar occurrences.

Objective: To describe the perceived experience in clinical clerkship and the association of student, patient, and COVID-19 infection factors on it among medical students during the COVID-19 pandemic.

Methods: An institutional descriptive cross-sectional study was carried out from May 2021 to December 2022 among medical students from academic years 2015/2016, 2016/2017, 2017/2018, and 2018/2019 using a self-administered paper-based questionnaire and analyzed using IBM SPSS Version 25. Descriptive statistics and chi-square tests were performed.

Results: Out of the 330 (response rate of 77.28%) medical students, 57.6% were females and 66.7% were in the age category of 24-26 years. 27% of the participants had COVID-19 infection, while 55.2% of the participants underwent quarantine procedures, but only 17.3% perceived that their clinical learning was affected due to the pandemic. 25.5% had to change their transportation, out of which 91.67% had to spend an extra amount. Final year medical students perceived that their clinical experience was affected (31.5%) compared to other batches. Inadequacy of patient numbers and less cooperation of patients during history taking and examination, along with inadequate safety measures in hospitals were found to be associated with the perceived experience of the medical students with a significance level of less than 0.05.

Conclusion: The COVID -19 pandemic affected the clinical exposure of medical students which can be minimized by taking measures to improve patient cooperation and by improving the safety measures taken in the hospital environment.

Keywords: COVID-19, clinical clerkship, perceived experience, Jaffna, medical students

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