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Proceedings of the

5th

Undergraduate Research Symposium

Strengthening Healthcare through Research and Innovation

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Faculty of Allied Health Sciences
University of Jaffna

FACULTY OF ALLIED HEALTH SCIENCES

UNIVERSITY OF JAFFNA

Proceedings of the 5th Undergraduate Research Symposium 2023

"Strengthening health care through research and innovation"

28th March 2023

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MESSAGE FROM THE VICE CHANCELLOR

It is with great pleasure I am sending my greetings and best wishes for the 5th Undergraduate Research Symposium hosted by the Faculty of Allied Health Sciences (FAHS), University of Jaffna. University of Jaffna has its vision to be a leading centre of excellence in teaching, learning, research and innovation. It also stands with an outstanding history of supporting the research activities of the staff and students of this entity. In that manner, I congratulate the efforts of the staff of the FAHS for taking the initiatives to conduct this symposium for undergraduate students. I expect this symposium to be the best scientific forum for the young graduates to provide exposure and to make their research work visible to the scientific community. I am foreseeing this symposium as a way to establish an undergraduate research culture within the faculty which in turn can promote research among the future undergraduates and also can encourage the young academics of the faculty to be more engaged in research and innovation. This symposium would be a sizzling experience for the undergraduates.

Enhancement of Innovative research skills of the undergraduates through continuous encouragement and providing opportunities for scientific communication is highly important to produce competent graduates. In that manner, the theme of the symposium "Strengthening healthcare through research and innovation" ascertains the importance of research in opening the horizons of healthcare beyond expectations. Further, this also emphasizes the need for enhancement of wisdom and energy of the younger generation to face the future challenges with confidence.

Hence, I take this opportunity to appreciate the time and efforts of the staff of FAHS and the members of the organizing committee in making this event a success. I wish to congratulate the young researchers who are presenting their valuable findings in this forum.

I wish this conference a great success and glories to God.

Prof. S. Srisatkunarajah,
Vice Chancellor,
University of Jaffna.

MESSAGE FROM THE DEAN

I am very much pleased to give this message to this 'Undergraduate Research Symposium 2023' organized by the Faculty of Allied Health Sciences. This is our 5th Undergraduate Research Symposium and the previous four symposia were conducted jointly with the Faculty of Medicine, University of Jaffna. The experiences we gained from previous symposia gave us the strength and platform to conduct this Symposium as a standalone one.

This Symposium is focused on the theme entitled "Strengthening healthcare through research and innovation". I firmly believe that this theme is carefully chosen to address the issues currently faced by the people of this country. This research symposium provides a great opportunity and a platform for our students to engage in and carry out fruitful research, and to present their research findings with their peers. I am sure that this research symposium would definitely take the talents of our students a step ahead of others. Further, a research symposium like this would provide a greater platform for undergraduate students to develop their critical thinking skills, analytical skills and presentation skills which are essential to become a highly skilled professional in the modern world.

My gratitude goes toward our keynote speaker Professor Niroshini Nirmalan for accepting our request and ready to deliver the keynote address in this forum. As the Dean of the Faculty, I would also like to express my sincere gratitude to all the members of the organizing committee for their effort to make this symposium a success. I believe that this conference will be a successful stepping stone for all the participants and I wish them all success. My wholehearted congratulations and wishes for our students and my heartiest greetings for a successful symposium.

Thank you,

Mrs. Deivy Thabotharan,
Dean, Faculty of Allied Health Sciences,
University of Jaffna.

MESSAGE FROM THE SYMPOSIUM CHAIR, 5TH URS 2023

It is a great pleasure to write this message as a chair of the 5th Undergraduate Research Symposium 2023 of the Faculty of Allied Health Sciences (FAHS), University of Jaffna. Although the previous four Undergraduate Research Symposiums were jointly organized by the Faculty of Medicine and FAHS, the 5th Undergraduate symposium is solely organized by the FAHS under the theme of "Strengthening Healthcare through Research and Innovation".

The trend in healthcare is rapidly changing worldwide. Every patient data in the healthcare system is an asset to the world as every patient care and treatment strategy currently used in healthcare was learnt from caring for previous patients or analyzing their data. Research using these data leads to novel discoveries of cures and treatment of life-threatening diseases and improves the health care system. Remarkably, recent innovations in artificial intelligence, molecular diagnostics and bioinformatics have created a new platform for early diagnosis, treatment, and prevention of chronic diseases.

Since the production of new knowledge is one of the ultimate goals of education, the FAHS also trains and motivates its graduates to produce new knowledge and innovations by conducting a multidisciplinary research project as a part of their degree. In this manner, today is one of the greatest days for the faculty as it contributes to the improvement of healthcare by organizing this research symposium for the undergraduates to share their new research findings and innovations with the scientific and healthcare community.

As the Chair of the 5th Undergraduate Research Symposium of the FAHS, I would like to express my sincere gratitude to all distinguished speakers, reviewers, track chairs, presenters, participants and all the members of the organizing committee as well as all the staff of the FAHS who gave their immense contribution to the success of this symposium.

I believe you all have a great time at this symposium, and I wish you good luck!

Dr. R. Karunaithas,
Symposium chair,
5th Undergraduate Research Symposium
Faculty of Allied Health Sciences

MESSAGE FROM THE EDITOR, 5ᵀᴴ URS 2023

The 5ᵗʰ Undergraduate Research Symposium has organized by the Faculty of Allied Health Sciences independently under the theme of 'Strengthening health care through research and innovation". This symposium provides the opportunity for the undergraduates to publish their research findings in this forum and get experienced. There were 28 abstracts submitted by the undergraduates of Faculty of Allied Health Sciences through the CMT. The abstracts were sent to the reviewers in the relevant field with the review report form. Based on the blind review process, all the abstracts were accepted with minor and major corrections. This review process ensured the standard of the abstracts published in the symposium.

I would like to thank the undergraduates who have submitted their research findings in this symposium and thank all the reviewers for reviewing the abstracts in a short period of time. I appreciate everyone who provided their inputs and suggestions to make this symposium proceedings in a standard level.

Mrs. V. Jegapragash,
Editor,
5ᵗʰ Undergraduate Research Symposium,
Faculty of Allied Health Sciences.

ABSTRACT OF THE KEYNOTE SPEECH

SCIENTIFIC RESEARCH CAREERS: OPPORTUNITIES, CHALLENGES AND REWARDS

The keynote address will explore the different routes for achieving a career in research and discuss the inherent opportunities and challenges therein. The talk will be modelled on Prof Nirmalan's research career working on Drug discovery in malaria. Resistance acquisition to all categories of antimalarial drugs and the paucity of new drugs in the developmental pipeline makes drug discovery an urgent priority. With traditional developmental pipelines for a new drug taking 15-17 years, drug re-positioning or re-purposing could offer a viable alternative route to fast-track discovery. Furthermore, natural products as a drug resource continues to be sidelined despite strong evidence of effectivity in complex diseases like malaria.

Sri Lanka has achieved the highly significant and ambitious milestone of eliminating Malaria from the country. Maintaining such a status in the backdrop of relentless resistance acquisition and dwindling chemotherapeutic options, could prove challenging. The keynote address is intended to urge and inspire the next generation of research scientists, to reinforce research strategies that could help in combatting disease.

Prof Niroshini Nirmalan MBBS, MSc, PhD, FHEA
Chair in Molecular Biosciences
School of Science, Engineering and Environment
University of Salford, Manchester, UK.

LISTS OF ABSTRACTS

Perception of sports participation on academic stress among female senior secondary school students in Jaffna education zone

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Introduction: The World Health Organization reported nearly 81% of adolescents did not achieve the recommended level of physical activity worldwide. Sports participation increases alertness, and recollects information, which increases academic activity. Sports participation inspires to accomplish the heavy academic goal, attend school regularly, reduce discontinuation of school and get better academic scores. Being physically active reduces the physical inactive related diseases and improve the daily life. This leads to better academic performance.

Objective: To assess the relation of perception of sports participation on academic performance among female senior secondary school students in the Jaffna education zone.

Methodology: A school-based descriptive cross-sectional study was conducted among grades 10, 11, 12 and 13 female students in the Jaffna educational zone. A validated self-administered questionnaire was used for data collection. Data were analyzed using SPSS 23. Ethical clearance was obtained from the Ethical Review Committee, Faculty of Medicine, University of Jaffna.

Results: The estimated sample size was 845 and 830 students were responded. The age range of the participants were between 15 and 19 years with a mean age of 16.48 years (SD=1.40). Students who participate in sports are 268 (32.3%) and non-participants are 562 (67.7%). Pearson correlation revealed that the perception of sports participation significant weak positive correlation between the perception of academic performance (r=0.158, p=0.000)

Conclusion: There is no strong impact of sports participation on academic performance of female senior secondary school students in Jaffna education.

Keywords: Perception, Sports participation, Academic performance, Female, Senior secondary school, Jaffna zonal educational

Prevalence and associated factors of low back pain among bank officers in Jaffna divisional secretariat area

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Introduction: Low Back Pain is common health problem globally. Low back pain mainly affects the one's day to day activities and in their professional performance. The prevalence is high among the bank workers in other countries and having risk habits of prolong sitting, lack of physical activity, poor positioning and, no breaks during work.

Objective: To assess the prevalence of Low Back Pain and find the associated factors among bank officers.

Methodology: This was a descriptive cross-sectional study carried out among 339 bank office workers. Data were collected by using pre tested self-administered questionnaire. There was no any sampling technique adopted and the entire population was included in this study. Data was analyzed by using SPSS 25 and descriptive statics were used to describe the variables and chi squared test was used to identify associated factors. Ethical clearance was obtained to carry out this study.

Results: There were totally 351 bank office workers from banks in Jaffna divisional secretariat area and among them 96.58% were responded. Among the participants 56% were female and 30.1% were had 11-15 years working experience. The mean age of respondents was 33 years. Among the participants prevalence of low back pain was 59.29%. The prevalence of low back pain was significantly associated with age (p=0.001), marital status (p=0.001), job experience (years) (p=0.001), physical activity (p=0.001), use of computer (p=0.001), time duration of using computer (p=0.001), long term in sitting position (p=0.001) and long-term in standing position (p=0.001).

Conclusion: Prevalence of low back pain was high among bank office workers and significantly associated with many factors. It is better to have health education programs regarding prevention of this health issue and the maintaining physical wellbeing.

Key words: Bank Officers, Low Back Pain, Prevalence

Factors associated with knowledge on gastritis among undergraduates of Faculty of Allied Health Sciences, University of Jaffna

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Introduction: Gastritis is a common inflammatory disease condition. The most common cause is *Helicobacter pylori* infection. It can be affected the quality of life as well as end-up with life threading conditions such as gastric cancer. Undergraduates of Faculty of allied health sciences are the future health professional and they should have adequate knowledge on it to educate the community.

Objective: To assess the knowledge on gastritis and the associated factors on it among undergraduates of Faculty of Allied Health Sciences University of Jaffna.

Methodology: This was descriptive cross-sectional study done among the nursing, pharmacy and medical laboratory sciences undergraduates of Faculty of Allied Health Sciences University of Jaffna. Study population was 649 and stratified random sampling method was used to find the sample of 426. Data collection was done by using the pretested self-administered questionnaire. Data were analyzed by using SPSS 25 (Statistical Package of Social Science) and descriptive statistics was used to describe the variables, and chi squared test was used to find the association.

Results: Out of 426 participants 388 participants had responded (response rate: 91.07%). Within those 67.5% participants were female and 27.8% participants were studying nursing, 35.6% were studying pharmacy and 36.6% were studying medical laboratory sciences. According to the results 43% participants had been diagnosed with gastritis. In the findings 12.4% had adequate knowledge, 54.6% had moderately adequate knowledge and 33% had inadequate knowledge about gastritis. Mean of the knowledge was 59.41 with the range from 15 to 100. The knowledge on gastritis had significantly associated with age (p=0.000), nationality (p=0.027), Religion (p=0.017), and academic year (p=0.000).

Conclusion: Knowledge on gastritis of the undergraduates were moderately adequate level. Knowledge on transmission of *Helicobacter pylori* with faecal contamination, diagnostic test of gastritis and medical nutrition therapy had been noticed in low level.

Key words: Gastritis, Knowledge, Undergraduates.

Practice on prevention of gastritis among undergraduates of Faculty of Allied Health Sciences, University of Jaffna

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Introduction: Gastritis is a common inflammatory disease condition. The most common cause is *Helicobactor phylori* infection. It adversely affects the quality of life as well as end-up with life threatening conditions such as gastric cancer. Therefore, having good practices on prevention of gastritis is important.

Objective: To assess the practice on prevention of gastritis among undergraduates of Faculty of Allied Health Sciences, University of Jaffna.

Methodology: This descriptive cross-sectional study was done among 426 undergraduates of Faculty of Allied Health Sciences, University of Jaffna selected by stratified random sampling method. Data were collected by using the pretested self-administered questionnaire. Descriptive statistics was used to describe the data and the associated factors were found by using chi squared test. The ethical clearance was obtained from the Ethics Review Committee of Faculty of Medicine, University of Jaffna.

Results: The response rate was 91.07%. Among them two third of the participants were female (67.5%). Mean age of the participants was 23.8years (SD=0.625). In the findings 43% of the participants had been diagnosed with gastritis., 46.1% were having good practice on prevention with the mean of 47.6 (SD= 7.678). Majority of the participants were following bad practices on prevention like eating uncooked food (70.9%), skipping more than one meal in a day (63.1%), eating high spicy foods (67%), eating fast foods (66.8%), high salty intake (71.4%), and high citrus intake (72.4%). Further, this study revealed that a smaller number of participants were following the good practices like washing hands before meal (50.8%), following clean technique on food handling (47.9%), getting meal on proper time (45.9%), referring about practice on prevention (46.1%), following stress realising techniques (53.1%), and doing regular physical exercises (41.7%).

Conclusion: This study found that less than half of the participants only had good practice on practice on prevention of gastritis. The study concludes that the practice of prevention of gastritis were poor among undergraduates.

Key words: Gastritis, Practice on prevention, Undergraduates

Prevalence of anaemia and its associated factors among the undergraduates of the Faculty of Allied Health Sciences, University of Jaffna

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Introduction: Anaemia is one of the most common public health concerns worldwide. Although community-based studies are ongoing throughout Sri Lanka, there is a lack of contemporary data on the prevalence of anaemia among university students.

Objective: To determine the prevalence and associated factors of anaemia among the undergraduates at the Faculty of Allied Health Sciences, University of Jaffna.

Methodology: The cross-sectional descriptive study was carried out among 341 undergraduates. Ethical clearance for the study was obtained from the ethical review committee of the Faculty of Medicine, University of Jaffna. Following informed consent, blood samples were collected, and haemoglobin estimation was performed by the cyanomethaemoglobin method. A self-administered questionnaire was used to assess the factors regarding anaemia. Statistical analyses were performed using the statistical package for the social sciences version 15, and the P value <0.05 was considered statistically significant.

Results: Amongst the 341 participants, 63.9% were female, representing a male-to-female ratio of 1:1.77. Furthermore, 44.3% and 55.7% of participants were aged between 20-24 and 25-29 years, respectively. The haemoglobin estimations revealed that 23.2% of the undergraduates were anaemic based on the World Health Organization criteria. Among the anaemic students, the proportion of females was markedly high (98.7%). Statistical analysis revealed that following factors were significantly associated with the anaemia among undergraduates; irregular exercise pattern (p=0.015), exercise less than 20 minutes per day (p=0.018), and consumption of green leaves less than 4 times per week (p=0.03).

Conclusion: The prevalence of anaemia among undergraduates at the Faculty of Allied Health Sciences, University of Jaffna, was high. Focused education and awareness programs for the prevention of anaemia among undergraduates are recommended. Such programs should include the associated factors identified in this study.

Key words: Anaemia, Undergraduates, Risk Factors, Faculty of Allied Health Sciences.

Risky sexual behaviours and the associated factors among undergraduates of the University of Jaffna

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Introduction: Sexual behaviors refers to a wide range of actions that people use to express their sexual orientation. It ranges from solitary behaviors such as masturbation to partnered sex like intercourse or non-penetrative sex. The behaviors with potential to harm a person's health are recognized as risky sexual behaviors.

Objective: To assess the risky sexual behaviors and its associated factors among undergraduates of the University of Jaffna.

Methodology: A descriptive cross-sectional study was conducted among 428 undergraduates, at the University of Jaffna. A self-administered questionnaire was used to collect the data. Data were analyzed by using Statistical Package of Social Science (SPSS) version 26. The association of risky sexual behaviors with the Socio - demographics, and other factors was determined by chi-Square test.

Results: Among the 428 prospective participants, almost half were males (50.9%). And most of them (66.6%) were under the age of 24 years. Among them 42.5% were Buddhists, and 36.9% were Hindus. Only a few students (15%) were living at their houses with their parents or spouse. More than half of the students were studying in their first and second years of study in their respective Faculties. Regarding their sexual practices, 26.6% of them were sexually active. Among them 15.2% were engaged in any type of risky sexual behavior. The following factors were associated with the exposure to risky sexual behaviors; Gender ($p=0.001$), Faculty they belong ($p=0.002$), monthly income ($p=0.019$), cigarette smoking ($p=0.001$) and the habit of accessing pornography ($p=0.001$), chronic worries in life ($p=0.047$), peers' influence on sexual activity ($p=0.001$).

Conclusion: The prevalence of risky sexual behaviors among undergraduates seems higher compared to other national studies. And it is associated with several factors. Interventions to abstain from risky sexual behaviors among the students are mandatory. The associated factors identified should be considered while planning such activities.

Key words: Risky sexual behaviors, Undergraduates, Sexual health

Knowledge on hypothyroidism and associated factors on it among hypothyroidism patients attending endocrinology clinic at Teaching hospital Jaffna

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Introduction: Hypothyroidism is a relatively second most common endocrine disorder and if it is not treated properly, it can lead to complications. Adequate knowledge about disease and treatment is important to improve quality of life and prevent the progress of disease affecting health.

Objective: To assess the Knowledge on hypothyroidism and associated factors on it among hypothyroidism patients attending Endocrinology Clinic at Teaching Hospital, Jaffna.

Methodology: This was a hospital based descriptive cross-sectional study among 278 Hypothyroidism patients in the Endocrinology Clinic at Teaching Hospital Jaffna. Pre-tested and validated interviewer-administered questionnaire was used to collect the data. The data were analysed by using IBM SPSS Statistics 25. The variables were described by using mean, standard deviation, percentages, and frequencies. The Chi-Squared test was used to find the association between knowledge and the factors. The ethical clearance was obtained from Ethics Review Committee of Faculty of Medicine, University of Jaffna.

Results: The mean age of the participants was 35 years (SD=14.289). The majority of the participants were females (89.6%). More than half of participants studied up to O/L (51.8%) and two third of them (66.5%) were married. Three fourth of the participants (75.2%) had adequate knowledge on hypothyroidism. More than three quarter of participants (76.6%) knew that women had a high risk to develop hypothyroidism. There were significant associations found between knowledge and socio-demographic variables such as age (p=0.001), gender (p=0.002), educational level (p=0.002), and marital status (p=0.041).

Conclusion: the findings revealed that most of the participants had adequate knowledge on hypothyroidism. It is recommended to educate other participants also for getting optimal care.

Keywords: Hypothyroidism, Knowledge, Jaffna

Knowledge of atorvastatin and associated factors on knowledge among the patients with ischemic heart disease at Teaching hospital, Jaffna, Sri Lanka

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Introduction: Ischemic heart disease is the leading cause of hospital deaths in Sri Lanka, which accounts for 14.1% of all cases. Statins reduce the risk of developing atherosclerosis among patients with ischemic heart diseases. Adequate knowledge on medicines will improve the adherence and thus therapeutic outcomes.

Objective: To assess the knowledge of atorvastatin and associated factors among the patients with ischemic heart disease at the Teaching hospital, Jaffna.

Methodology: A descriptive cross-sectional study was conducted among 430 patients with ischemic heart disease using systematic random sampling technique. An interviewer-administered questionnaire was used to collect data. The 11 items knowledge questionnaire included dose, frequency, side effects, and purpose of usage. Knowledge on atorvastatin was categorised as adequate and inadequate with the cut-off value of 50% of the total knowledge score. The Chi-Square test was used to assess the association between variables at the 95% confidence interval and P value less than 0.05 was considered as a significant level. Data was analysed using SPSS version 25. Ethical clearance was obtained from the Ethics Review Committee, Faculty of Medicine, University of Jaffna.

Results: The response rate was 96.51% (N=430). More than half of the patients (63%) had adequate knowledge on atorvastatin. Gender (p=0.013), level of education (p=0.044), occupation (p=0.026) and having side-effects (p=0.002) had significant association with knowledge. However, age, marital status, ethnicity, monthly income, duration of treatment, lifestyle modification, usage of traditional medicine and clinic visit did not associate with knowledge on atorvastatin. Patients have more knowledge on purpose of statin usage (70%), frequency (86.7%) and miss dose of statins (97.4%). Most of the patients had poor knowledge about the name of statin (27.9 %) and their dose (28.8%) need of prescription for purchasing statins (2.8%).

Conclusion: Knowledge on atorvastatin among patients with ischemic heart disease was adequate among more than half of the patients. More attention needs to be taken to improve the knowledge especially among females, patients studied up to O/L, nonemployees and patients having side effects. Pharmacists could play a role in educating patients by providing counselling to improve their knowledge.

Key words: Knowledge, Atorvastatin, Ischemic Heart Disease

Prevalence of constipation and associated factors among undergraduate students of Faculty of Allied Health Sciences, University of Jaffna.

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Introduction: Constipation is a common chronic gastrointestinal complaint and, although not life-threatening, is physically and mentally inconvenient condition for many patients. The health-related quality of life is diminished in the group of constipated population. And also, chronic constipation has major impact on life. Impact of the constipation should not be underestimated and it can result in high expenditure for the health care cost as well as burden on the health care system.

Objective: To assess the prevalence of constipation and associated factors among undergraduate students, Faculty of Allied Health Sciences, University of Jaffna.

Methodology: This was an institutional based descriptive cross-sectional study carried out among 426 undergraduate students, Faculty of Allied Health Sciences, University of Jaffna. Data were collected by using pretested self-administered questionnaire. The descriptive statistics was used to describe the variables and chi square test was performed to identify association among variables. Ethical clearance was obtained to carry out this study.

Results: There were 426 undergraduate students recruited as sample for this study and 90.14% were responded. Mean age of the participants were 24.2 (SD= 0.478) and 65.6% were female. According to the academic year, participants were almost evenly distributed. Among the participants, prevalence of functional constipation and self-reported constipation were 25.5% and 33.3% respectively. Gender, intake of self-medication, fibre food intake, fast food consumption and consumption of water were significantly associated with the self-reported constipation while intake of self-medication, fibre food intake and consumption of beverages were significantly associated with functional constipation.

Conclusion: The prevalence of self-reported constipation and functional constipation were significantly prevailed among the population. Prevalence of self-reported constipation was more common in females than male.

Key words: Constipation, Prevalence, Associated factors, Undergraduate

Prevalence of anaemia and its association with ABO/Rh blood groups, age and sex among thyroid patients attending to endocrine clinic Teaching Hospital Jaffna

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Introduction: Anaemia is one of the most common problems faced by thyroid patients. Even though anaemia and thyroid disorders frequently occur concurrently, the underline relationship between these disorders is still unknown.

Objective: To determine the prevalence of anaemia and its correlation with ABO/Rh blood groups, age and sex among thyroid patients attending to Endocrine clinic, Teaching Hospital, Jaffna.

Methodology: An institutional based cross-sectional study was conducted among 208 thyroid patients attending the Endocrine clinic, Teaching Hospital Jaffna. Selected participants were tested for haemoglobin levels and red cell indices. Participants identified as anaemic were further tested for ABO and Rh D grouping. Cramer's V Correlation (v) was used to find out the association between ABO/Rh, age, sex and anaemia.

Results: Among the 208 participants, 73.6% were hypothyroidic and 26.4% hyperthyroidic. Anaemia was present in 28.8% among the thyroid patients; 75% hypothyroid and 25% hyperthyroid. The prevalence of normocytic normochromic anaemia, microcytic hypochromic anaemia and macrocytic anaemia among hypo and hyperthyroid patients were: (57.8%, 40%), (31.1%, 53.3%) and (11.1%, 6.7%) respectively. ABO blood group distribution in the hypo and hyperthyroid anaemic patients was: "O" (46.7%, 46.7%), "A" (31.1%, 26.7%), "B" (20%, 26.7%), and "AB" (2.2%, 0%) respectively. In both groups, the majority were Rh D positive. ABO/Rh blood groups showed a strong/moderate relationship with the presence of anaemia in thyroid patients ($v = 0.832$). A greater number (40%) of the hyperthyroid patients presenting anaemia fall into the 41-50 age group while it was 31-40 age group for hypothyroid patients (42.2%). Females were more commonly affected by anaemia than males in all thyroid cases ($p < 0.05$).

Conclusion: Normocytic normochromic anaemia was the more prevalent in hypothyroid patients whereas microcytic hypochromic was in hyperthyroid patients. The findings indicate a strong/moderate relationship between the ABO/Rh blood groups and anaemia in thyroid patients. Findings show there is a significant difference between men and women in presenting thyroid anaemia. Also, there are significant age group differences in presenting anaemia in thyroid diseases.

Key words: Thyroid patients, Anaemia, Prevalence, ABO/Rh blood groups.

Impact of patient education with Pictorial aids on medication adherence among patients attending the Diabetic Center, Teaching Hospital Anuradhapura

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Introduction: Patient education provides medicines-related information to the patients which mainly focus on the ability to understand and follow the advice delivered by health care professionals. WHO states, "increasing the effectiveness of Medication adherence (MA) interventions may have a far greater impact on the health of the population than any improvement in specific medical treatments". The general practice of dispensing reveals edifying the need for healthcare providers to move beyond the traditional didactic methods of oral and verbal communication with patients regarding medication-taking behavior, especially for chronic patients, diabetics, living with life-long disease states.

Objective: To evaluate the impact of patient education with pictorial aids on medication adherence.

Methodology: This is an experimental study. Adult diabetic patients (n=156) in the age range between 30 to 60 years were selected from the Diabetic Center by systematic sampling and assigned to Control Group (CG) and Intervention Group (IG). After the pre-adherence was measured in groups, the IG and CG received pictorial aids with verbal education and only verbal education respectively. Post-test were done after one month of intervention. The MA was measured by using Adherence to Refill and Medication Scale (ARMS). Statistics were conducted at 90% power and 95% confidence level.

Results: The pre- and post-response rates were 80% and 92% respectively. Except for gender, participants' characteristics were not significantly different in IG (n=59) and CG (n=56) such as the number of medications (n=4, IQR=2), years on medication (8, SD=6), age (53, IQR=13), and income (Rs.15000.00, IQR=17000.00). Most of the participants were oral hypoglycemic medicine only (66%), and at least attained secondary education (91%). Both educational methods significantly improved the MA in IC and CG. Further MA in IC was significantly higher than CG.

Conclusion: Patient Education with pictorial aid is better than verbal education alone.

Keywords: Patient education, Pictorial aids, Diabetic Patient

Medication adherence and associated factors among hypertensive patients attending medical clinics at Teaching Hospital Jaffna

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Introduction: Hypertension is a most challenging public health problem worldwide. Developing countries like Sri Lanka shows increased trend in prevalence of hypertension. Uncontrolled hypertension affects each system of the body. Medication adherence plays main role in control of blood pressure, prevent complications and get good clinical outcome. Associated factors with medication adherence should be identified to develop strategies for the optimum level of medication adherence.

Objective: To assess the medication adherence and associated factors among hypertensive patients attending medical clinics at Teaching Hospital Jaffna.

Methodology: A descriptive cross-sectional study was conducted among the 224 hypertensive patients attended to the medical clinic, Teaching Hospital Jaffna during November 2022. A pretested interviewer-administered questionnaire was used to collect data about socio-demographic factors and medication adherence whilst Data extraction sheet was used for identifying treatment related factors. Medication adherence was assessed with the help of Morisky Medication Adherence Scale-8 (MMAS-8) and scores were categorized as good and poor adherence. Then association was found with selected factors by using Chi square test.

Results: Two hundred and twenty-four participants were interviewed with the response rate of 100%. Majority of the participants (64.7%) were male. The mean age of the participants was 64.5 years (SD=9.6). Good adherence level was noted among 46.4% of the participants. The mean score of Medication adherence was 5.9 out of 8. Medication adherence had significant positive association with less frequency of alcohol drinking (p=0.020, ODD=1.491), hypertension under control (p=0.018, ODD=1.394) and monthly clinic visit (p=0.037, ODD 1.427).

Conclusion: The study indicated that less than half of the participants had good level of adherence to antihypertensive medications. Forgetfulness is the predominant reason for poor adherence. It is recommended to have education programmes for participants by incorporating the associated factors.

Key words: Hypertension, Medication adherence, Socio-demographic factors, Treatment related factors, Jaffna.

Knowledge on pain management and associated factors on it among the nurses working in Teaching Hospital, Jaffna

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Introduction: Pain management is a key component of patient satisfaction and wellbeing in acute care settings. Nurses spend more time with patients than any other members of the health care team and have an important role in pain assessment and management. Inadequate knowledge is a significant clinical problem leading to inappropriate and inadequate pain management practices.

Objective: To assess the knowledge and associated factors on pain management among the nursing officers working in Teaching Hospital, Jaffna.

Methodology: A descriptive, cross-sectional study was conducted among 346 nursing officers working in Teaching Hospital Jaffna by using a pre-designed and validated self-administered questionnaire. Systematic random sampling method was used to identify the participants. Data were analysed with SPSS 25 and descriptive statistics were used to describe the variables and chi squared test was performed to identify the associated factors. The ethical clearance was obtained from Ethics Review Committee of Faculty of Medicine.

Results: Mean age of the study participants was 31.55($\pm$8.236). Half of them (50.9%) had less than three years' experience as a nurse. Among the participants only 14.2% of the nurses had good knowledge, 39.0% of the nurses had moderate knowledge and 46.8% of the nurses had poor knowledge. Most participants were knowledgeable on pain is one of the vital signs (92.2%) and use non pharmacological techniques along with pain medication (84.7%). Knowledge on pain management had significant association with learned the theory from nursing educational program (P=0.017).

Conclusion: Nearly half of the participants had poor knowledge on pain management. It is recommended to have regular training sessions to update their knowledge on pain management.

Key words: Pain Management, Nurses, Knowledge, Teaching Hospital Jaffna

Geriatric depression and the factors associated among the elderly residing at the state elder's home, Jaffna district of Sri Lanka

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Introduction: Geriatric depression is a common mental and emotional disorder in elderly population. Recent economic and social changes in Sri Lanka resulted an increase number of elders spending their remaining years in elderly homes. Institutionalized elderly are more vulnerable for geriatric depression.

Objective: To assess the level of geriatric depression and its associated factors among the elderly residing at the state elder's home, Jaffna district of Sri Lanka.

Methodology: This was an institutional based descriptive cross-sectional study among 144 elderlies. An interviewer-administered questionnaire was used to gather the data. IBM SPSS version 25 was used to analyze the data and chi squared test was performed to identify the significant association of geriatric depression with various factors.

Results: The study shows the mean age of the participants was 72.08 years (SD±7.637) with the majority of males (54.9%). Three fourth of the participants were (76.4%) presented with Geriatric Depression. Level of Geriatric Depression was significantly associated with educational background (p=0.047), previous employment status (p=0.006), chronic disease (p=0.014), clinic follow-up (p=0.007), regularity of recreational activities (p=0.009), institutional environment arrangements (p=0.032), level of satisfaction with care providers (p=0.005), friends and social connection (p=0.017), and level of support of elders' home in coping to stress (p = 0.002).

Conclusion: The prevalence of depression among elderly people in the State elderly home at the Jaffna district was high. The Level of geriatric Depression is associated with various modifiable factors. The interventions to reduce the Depression among institutionalized elderly is necessary. It is recommended that the interventions should focus on the factors identified in the current study.

Key words: Geriatric depression, Elderly, Jaffna

Prevalence of different types of anaemia and its association to eGFR in heart failure patients who are attending to heart failure clinic, Teaching hospital, Jaffna

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Introduction: Heart failure is a major public health problem and an emerging epidemic. Anemia is a global public health problem that leads to human death, social and economic problems in all over the world. Patients with anemia and heart failure conditions may also have a higher risk of renal impairment.

Objective: To investigate the prevalence of different types of anemia and its association with estimated glomerular filtration rate (eGFR) in Heart failure patients who are attending to Heart failure Clinic, Teaching Hospital Jaffna.

Methodology: This is a laboratory based cross sectional study conducted among 102 heart failure patients attending to heart failure clinic, Teaching Hospital Jaffna. Haemoglobin concentration and red cell indices were measured in collected samples. Based on the findings, anemia prevalence was determined and was further classified into microcytic, normocytic, or macrocytic anemia. eGFR was calculated by using the patients' creatinine report. All the data were analyzed by using SPSS version 21. Ethical clearance was obtained from Ethics Review Committee of Faculty of Medicine.

Results: Among the total study population, 64.2% were anemic while 35.8% were non-anemic. Out of 64.2% anemic patients, 75.3% had normocytic normochromic anemia, followed by 22.1% with microcytic hypochromic anemia and 2.6% with macrocytic hyperchromic anemia. When considering the eGFR association, 75.3% of the anemic and 90.7% of non-anemic had eGFR ≥ 60ml/min/1.73m^2 and the remaining 24.7% of anemic and 9.3% of non-anemic population had eGFR <60ml/min/1.73m^2. A significant association between eGFR and anemia was observed ($p<0.05$).

Conclusion: According to our study, prevalence of anemia is high in heart failure patients and the most common type of anemia is normocytic normochromic. Also, there is a significant relationship between eGFR and anemia in HF patients. Therefore, HF patients who were anemic have a high risk for renal impairment.

Key words: Heart Failure, Anemia, Renal impairment

Prevalence of sleep problems and its associated factors among the elderly living at the Jaffna divisional secretariat division

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Introduction: Sleep problems are more common among elderly due to physiological changes and poorly recognized due to negligence. Study on sleep problems and its associated factors to reduce sleep complaints and increase sleep quality among elders.

Objective: To assess the prevalence of sleep problems and its associated factors among elderly living at the Jaffna divisional secretariat division.

Methodology: The community based cross sectional study was conducted among 395 elderlies during November 2021 to November 2022. Participants were selected by two stage stratified random sampling. Predesigned interviewer administered questionnaire was used to gather the data. Data was analyzed in SPSS 25.0. Chi squared test was used to identify the association between the sleep problems and the selected factors.

Results: Most of the participants (64.3%) were between 60-69 years of age. 55.7% of them were males, and 74.7% were married and (87.3%) were retired from previous employment. All the participant reported at least one sleep problem. Difficulty to fall sleep was the leading problem (74.6%) in this study, insufficiency of sleep duration (72.2%), dissatisfaction of sleep (71.4%), wake up earlier than they desired (68.3%) and night awakening (60.5%) were other identified major sleep problems. In addition, sleepiness (25.6%), not feeling well (17.3%) and disturbed body function (13.7%) during the day time were reported. Following factors were shown statistically significant association between sleep problems of study participants; age, gender, level of education, working status, permanent income, noise disturbance, light disturbance, temperature of the environment, day nap, incontinence, chronic worries, using addictive substances, family respect, using alcohol, sleep soon after dinner, watching TV before sleep, drinking caffeinated drinks before bed, smoking, reading in bed, chronic illness and difficulty in daily activities.

Conclusion: Prevalence of sleep problems among the participants are high. Interventions to eliminate the sleep problems among the elderly are mandatory. The associated factors which are identified should be considered while planning such interventions.

Key words: Prevalence, Sleep problems, Elderly, Disturbance

Evaluation of antibacterial activity of root extracts of herbal plant, *Leucas zeylanica*

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Introduction: *Leucas zeylanica* used to treat inflammatory conditions, gout and microbial infections such as wounds, sores, itches, vertigo, anorexia, acute and chronic dyspepsia and flatulence in Sri Lankan traditional Ayurvedic.

Objective: To investigate the antibacterial activity of different solvents extractions of root of *L. zeylanica* against the *Staphylococcus aureus and Escherichia coli* present in chronic wounds.

Methodology: The root of *L. zeylanica* was collected in Rathnapura district and shade dried, extracted using maceration technique separately with petroleum ether, acetone, and methanol. The antibacterial activity of root extracts of *L. zeylanica* was determined against *S.aureus* and *E. coli* by using agar well diffusion method by occupying Co-amoxiclav as the standard. The diameter of the zone of inhibition (mm) of the extracts were measured and expressed as Mean ± Standard Deviation. Preliminary phytochemical screening was performed separately on the extracts of root.

Results: Methanol and acetone root extracts of *L. zeylanica* exhibited antibacterial activity against both *S. aureus* and *E. coli*. Methanol extract was exhibited; the mean values of inhibition zones against the *S. aureus* for 40 mg/ml was 15±1.00 mm, whereas the acetone extract was shown 15.67±2.08 mm. Methanol extract exhibited the mean values of inhibition zone against *E. coli* for 40 mg/ml was 14.67±1.00 mm, whereas the acetone extract was found to be 15±0.00 mm. Extract of petroleum ether did not show antibacterial activity against both *S. aureus* and *E. coli*. Phytochemical screening of methanol extracts spectacled positive results for flavonoids, tannins, polyphenols, sterols, carbohydrates, and proteins. Similarly, acetone extract revealed positive results for alkaloids, flavonoids, glycosides, polyphenols and sterols while petroleum ether extract revealed positive results for glycosides, polyphenols, gum and mucilage, sterols and carbohydrates.

Conclusion: It was found that root extracts of methanol and acetone of *L. zeylanica* showed antimicrobial activity against *S. aureus* and *E. coli*. However, petroleum ether extract of the root did not show any antibacterial activity. Further studies are required to isolate the active phytochemicals which were corresponding to the antibacterial activity.

Key words: *Leucas zeylanica*, Antibacterial activity, Root

Formulation and evaluation of poly herbal topical anti-bacterial ointment

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Introduction: Treatment of skin infection is one of the main challenges in human due to emerging antibiotic resistance. Nowadays the usage of the herbal product is increasing and become popular among consumers. Many polyherbal formulations are developed and used for the different ailments. Polyherbal ointments could be used against skin infections. Neem, Henna and Bracteated birthwort showed good antimicrobial activity and are used in the treatment of several skin conditions.

Objective: To formulate and evaluate polyherbal topical antibacterial ointment using leaves of extracts of *Azadirachta indica, Lawsonia inermis* and *Aristolochia bracteata.*

Methodology: The herbal extract was prepared by maceration method and the minimum inhibitory concentrations (MIC) of plant extracts were determined using micro-broth dilution method. Based on the MICs values, polyherbal mixture was prepared and incorporated into ointment bases. The ointments were formulated with 1% (F1), 2% (F2), 4% (F3) and 6% (F4) of polyherbal extracts. Parameters of ointments such as viscosity, pH, spreadability and stability studies after 30 days were estimated. Antibacterial activity was evaluated by agar well diffusion method against *Staphylococcus aureus, Streptococcus pyogenes* and *Pseudomonas aeruginosa* using Mupirocin ointment as standard. The statistical significance was evaluated by Paired sample t-test for stability studies and two-way ANOVA for anti-bacterial activity and P value < 0.05 was considered statistically significant.

Results: F4 ointment had comparable zone of inhibition (mm) 33.67, 10.83 and 5.00 to Mupirocin ointment 32.00, and 15.50 and 7.00 against *Staphylococcus aureus, Streptococcus pyogenes* and *Pseudomonas aeruginosa* respectively. pH, viscosity and spreadability of F4 were 5.72, 32.37 cPs and 10.04 gcms^{-1} respectively. Stability studies confirmed that no significant changes were observed in the prepared ointments after storage period of 30 days.

Conclusion: This study revealed that the polyherbal ointment with 6% extract was effective against skin infections causing selected bacteria and comparable activity to Mupirocin ointment.

Key Words: Formulation, Evaluation, Polyherbal ointment, Neem, Henna, Bracteated birtwort.

Awareness on Tuberculosis treatment and the socio demographic factors influence on compliance of Tuberculosis treatment among the patients at the Chest clinic Jaffna

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Introduction: Tuberculosis (TB) is a major global public health problem and one of the leading causes of death among infectious diseases. Noncompliance with the treatment remains the main challenge for TB prevention and control. Poor compliance may cause prolonged disease infectiousness, drug resistance, relapse, and death. Multiple underlying factors linked to noncompliance with treatment need to be addressed to promote compliance with treatment.

Objective: To assess awareness of Tuberculosis treatment and identify the influence of socio-demographic factors on compliance with TB treatment among TB patients in the chest clinic, Jaffna.

Methodology: A descriptive cross-sectional study was conducted among patients who were ≥18 years registered from 1st of June 2020 to 31st of May 2022 with pulmonary tuberculosis in the Chest clinic, Jaffna. Data was collected by using an interviewer-administered questionnaire and statistical software SPSS 25 is used to analyse the data. Data was presented in frequencies and percentages and Chi-square test was used to find the association. Ethical approval was obtained from ERC, Faculty of Medicine, University of Jaffna.

Results: Totally 259 patients participated in the study. The mean age was 56.6 years. The majority of the study participants were males (70.3%). Most of them were Sri Lankan Tamils (84.2%). Among them, 78.4% patients had good treatment compliance. Almost all of them (99.2%) knew the duration of the Tuberculosis treatment period as 6-12 months and they were aware that Tuberculosis can be cured by regular treatment (87.6%). BCG is given to prevent primary Tuberculosis (91.1%), Most of them (94.6%) knew sputum samples are used to diagnose pulmonary Tuberculosis. Also, nearly 70% were aware of Tuberculosis treatment. Age, education level, occupation and family monthly income, were shown the statistical significance with the treatment compliance on Tuberculosis.

Conclusion: The majority of the participants had good treatment compliance. Age, education level, occupation and family monthly income were showed the statistical significance with the Tuberculosis treatment.

Keywords: Tuberculosis, Treatment, Compliance, Factors,

Knowledge of menopause among women at the Nallur MOH area

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Introduction: Menopause is permanent cessation of menstruation. It will cause physical and psychological symptoms which affect the well-being and quality of life of middle-aged women. Knowledge on menopausal symptoms, consequences and management may improve the quality of peri and postmenopausal women's lives.

Objective: To assess the knowledge on menopause among women in the Nallur MOH area.

Methodology: Community based cross sectional study design used to collect the data from 426 women who aged between 40 to 60 years in Nallur MOH. Semi-structured interviewer administered questionnaire was used to collect the data. Data was analyzed using SPSS and presented in tables and diagrams. Ethical approval was obtained from the Ethics Review Committee, Faculty of Medicine, University of Jaffna.

Results: Mean age of participants was 50.88 years (SD=6.046)**.** Almost all the participants of this study were Tamil, among them most of the participants (82.5%) were Hindu. Around 79.8% of the participants were married and most of them (56.8%) were housewives. More than half of participants (63.7%) had moderately adequate knowledge on menopause. All the participants knew the meaning of menopause and also the majority of them (93.4%) knew the menopausal age range. Majority of the participants (84.5%) considered that menopause is a normal body process. Most of the participants knew that joint and muscular discomfort (75%), weight gain (64%) and irritability (51.5%) are menopausal symptoms. However, the majority of them did not know that hot flushes (80.6%), anxiety (75.75%), inner restlessness (62%) and decreased memory (61.75%) are menopausal symptoms. Majority of the participants (71%) knew that osteoporosis is a long-term consequence of menopause. Majority participants knew that eating a calcium rich diet (76.75%) will help to cope up with menopausal symptoms. Relatives were the main source of information regarding the menopause.

Conclusion: Most of the participants had moderately adequate knowledge.

Keywords: Menopause, Knowledge

Father's psychological adaptations and involvement during their transition to parenthood, among the fathers living at Nallur MOH area Jaffna.

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Introduction: It is a known fact that in the early decade mothers played a major role in the child nurturing process and fathers focused on providing the financial support they needed. However, this trend has changed now; fathers are expected to be active parents in their father role while sharing responsibilities with their partners. Fathers' adaptation to the paternal role in the transitional period is crucial for the child's growth and development.

Objective: To assess father's psychological adaptations during their transition to parenthood among the fathers living at Nallur MOH area, Jaffna.

Methodology: This community based descriptive cross-sectional study was conducted from August 2021 to January 2023 among 387 fathers. The response rate was 90.84%. Data was collected using an interviewer administered questionnaire and analysed using SPSS 25. Data was presented in frequencies and percentages.

Results: Age range of the study participants is 18 to 49 years and mean age was 34.5years. Most of the participants (97.9%) were Tamil, Majority were employed (91.7%). The findings revealed that during the transition period, the fathers were psychologically well adapted. Majority of the fathers (84.8%) felt affection for their baby during their partner's pregnancy. Fair number of them felt happy (39.4%), proud (31.3%) and love (28.3%) towards their child. They felt the father's role is important in child caring (91.9%) and their responsibilities increased (61.2%). Fathers were physically arranged with things needed to welcome their new baby (89.75%), felt more connected towards family (92.2%), happiness level in their marriage was highly increased (66.4%) with the baby and reported their experiences in sleep changes (25.2%). Myths, believes on caring for the baby were stated as fathers' difficulties (32.8%). Family members' advice was more helpful for them (33%). Fathers expressed their interest for more information (56.6%) to improve parenthood, and expected appreciation from partners for doing baby care (59.4%).

Conclusion: Fathers were well adapted psychologically. They worried about sick, crying babies and myths, believing they were their difficulties. Fathers reported a good level of involvement.

Key words: Fathers, Psychological adaptation, Transition, Parenthood

Knowledge on health hazards associated with the consumption of carbonated soft drinks among undergraduates of University of Jaffna

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Introduction: Carbonated soft drink consumption is most common among the youngest population worldwide. These beverages posed many health hazards, especially non-communicable disease. However, the youngest population consumes more without awareness of the health hazard of carbonated soft drink consumption.

Objective: To determine the knowledge on health hazards of consumption of carbonated soft drinks among undergraduate students at the University of Jaffna.

Methodology: Institutional based descriptive cross-sectional study was carried out among the undergraduates of Jaffna University. There were 423 students recruited as study participants from selected faculties of the University of Jaffna via a proportionate random sampling technique. A self-administered questionnaire was administered to collect the data. Data were analyzed by using SPSS version 25 and presented with descriptive statistics of mean, SD, percentages. Ethical approval was obtained from ERC, Faculty of Medicine, University of Jaffna.

Results: The age of the participant varied from 22 to 27 years old with a mean age of 24.35 (SD = 0.896) years. Majority of the participants were from the faculty of arts. Majority of the students knew that carbonated soft drinks contain poor nutritive value (72.8%). However, nearly 50% of them believed that it is a high-calorie drink. Many of them were aware that soft beverages have poor protein (96.2%) and mineral (94.6%) contents. The majority of them agreed that prolonged consumption of carbonated soft drinks posed the greatest health risks of obesity (80.4%) and diabetic mellitus (80.4%). More than half of the participants reported that hyperacidity (64.5%), nausea (61.0%), and sleep disturbances (52.5%) are the most common acute effects of the consumption of the carbonated soft drink. More than half of the participants (61.2%) were aware there is a colour code indication on the carbonated soft drinks labels. The available colors in the code mentioned by the participants were red (61.2%), orange (44.4%), and green (41.8%). Many are unaware of the sugar value in grams which represents each colour code and the safest level of consumption of soft drinks in a day (91.5%).

Conclusion: Nearly half of the participants had good knowledge regarding carbonated soft drinks.

Keywords: Knowledge, Health hazard, Carbonated soft drinks

Knowledge on consequences of unplanned pregnancy and associated factors on prevalence among antenatal mothers attending antenatal clinics in the Jaffna MOH area

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Introduction: Unplanned pregnancy is a worldwide problem that affects women, their families, and society. The most serious consequences of unplanned pregnancy are maternal death, maternal sickness, unsafe abortion and maternal stress.

Objective: To assess the knowledge of consequences of unplanned pregnancy and associated factors on prevalence among antenatal mothers attending antenatal clinics in the Jaffna MOH area.

Methodology: The institutional based descriptive cross-sectional study was carried out among 426 antenatal mothers by using an interviewer administered questionnaire who were attending antenatal clinics in Jaffna MOH area. Data was analyzed by using SPSS 25 and data was presented in frequencies and percentages and Chi-square test was used to find the association.

Results: Age range of participants was 18 to 38 years and mean age was 27.8 (SD$\pm$4.39) years. The prevalence of unplanned pregnancy was 21.9% and it was high among (61.5%) teenage mothers. They stated the impact of unplanned pregnancy has on baby's health, mother's health, mother's psychological wellbeing and financial status. Age, mother's educational level, mother's occupation, partner's educational level, income, type of family, usage of contraceptive, history of unplanned pregnancy, mother's medical condition was significantly associated with the prevalence of unplanned pregnancy.

Conclusion: The prevalence of unplanned pregnancy was 21.9%. Nearly 70% of the participants had moderate/adequate knowledge on consequences of unplanned pregnancy.

Key Words: Unplanned pregnancy, Prevalence, Knowledge

Prevalence of elder abuse and its associated factors among the elderly in Kekirawa division of Anuradhapura district

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Introduction: The population of elderly is growing rapidly. Global increase of elderly population creates various global challenges. One of the most serious problems is the rise in elder abuse.

Objective: To determine the prevalence of elder abuse and its associated factors among the elderly at Kekirawa division of Anuradhapura District.

Methodology: This is a community-based cross-sectional descriptive study among 371 elderly people. The data were collected using an interviewer-administered questionnaire and were analyzed using SPSS version 25. Participants were selected randomly from the list of elderly population of each Grama Niladhari division. The association between prevalence and its associated factors was determined by using the chi-square test.

Results: Out of 371 participants 28.3% were above 70 years of age and mean age was 67.47(SD=5.63) years. Around half of the elderly were female (51.8%). More than one third (39.1%) of the elderly were reported to experience at least one form of abuse. Psychological abuse was more prevalent (35.8%) while none of them reported sexual abuse. Few have reported other abuses also; such as physical abuse (7.0%), financial abuse (7.5%) and neglect (16.7%). Experiencing at least one form of abuse was associated with the following factors: age, marital status, living with partner, monthly income, receiving physical/ moral support from others & presence of chronic illness.

Conclusion: The prevalence of elder abuse among elderly in Anuradhapura district is high. and it is associated with several personal factors of the elderly. Immediate interventions to prevent elder abuse is mandatory. Such interventions should give special attention to the vulnerable elderly.

Key words: Elder, Abuse, Prevalence, Elderly

Attitude on nursing profession and the associated factors among the nursing students at the Faculty of Allied Health Sciences, University of Jaffna and College of nursing, Jaffna

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Introduction: Nursing is one of the honorable professions in the world and nursing education is becoming more demanding each day. Attitude is directly involved in choosing the nursing profession and the quality of the nursing profession.

Objective: The study aimed to assess the attitudes towards the nursing profession and the factors that influence on it among nursing students.

Methodology: An institutional-based descriptive cross-sectional study was conducted among the 323 nursing students who were studying at the Faculty of Allied Health Sciences, University of Jaffna, and College of Nursing, Jaffna. The data were collected by a self-administered questionnaire and analyzed by using IBM SPSS 25.0. The chi-square test was used to analyze the factors' influence on attitude of the participants.

Results: The mean age was 24.28 years, Female and male ratio was 3:1. Majority of the participants stated that they do not have any gender-based preference to choose nursing as their career (96.6%). Most of the students stated that they chose nursing due to their interest and to improve their financial status. The majority (55.9%) indicated that creating a good nurse-patient relationship is the major characteristic needed for a successful nurse. Also, they mentioned this relationship should be in a professional way with sympathy. The major responsibilities of the nurse mentioned by many (93.1%) are caring for the patient, helping in patients' recovery and maintaining their legal rights regarding their privacy, confidentiality, and psychological support. Half of them did not have a good opinion on going out of the workplace in uniform. There was a statistically significant association between participants' attitudes on the nursing profession and participants' gender, age, and their father's education level.

Conclusion: The majority of the participants had a good attitude toward the nursing profession. Participants' gender, age, and their father's education level were statistically significant associations on participants' attitudes towards the nursing profession.

Keywords: Nursing profession, Nursing students, Attitude, Associated factors

Psychological challenges posed by the threat of covid-19 of nursing staff at Teaching hospital Jaffna

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Introduction: Health care workers have to play a major role in combating this COVID-19 disease. The health care workers faced many psychological challenges during the COVID-19 pandemic.

Objective: To assess the psychological challenges posed by the threat of COVID-19 for nursing staff at Teaching Hospital Jaffna.

Methodology: This study was a hospital based descriptive cross-sectional study. A simple random sampling method was used and 393 nurses were recruited for the study. A self-administered questionnaire was used to collect data and data was analyzed by SPSS version 25.

Results: The age range of the participants is 25 and 59 years old. Sri Lankan Tamils (57.5%) and Sinhalese (40.2%) represent the majority of the population. Male: female ratio is 1:2. Near 95% of the participants worried as covid 19 infection is a great danger to health and they worried about covid 19 situation (92.1%). However, they stated (88.9%), they have confident enough to managing covid 19 situation. Most of the participants felt annoyed (44.6%) at work due to the anxiety of getting the infection. Nearly half the nurses stated (54.2%) that they felt sad when the few health care workers skipped from caring the COVID- 19 patients. More than half of (56.4%) them felt that their health condition is threatening while caring the patients with Covid -19. Many nurses stated (92.6%) that they avoided close contact with their family when they suspect they are infected. The worries encountered by the participants about their kids during the COVID pandemic were: disturbed education of children (64.6%), and smartphone addiction of them (69.2%).

Conclusion: A significant number of nurses faced various psychological challenges when work is posed by the threat of COVID-19.

Key words: Psychological challenges, Nursing students, COVID-19

Knowledge of cardiovascular disease among three-wheeler drivers in Anuradhapura police division

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Introduction: Cardiovascular diseases are one of the leading causes of death. Three-wheeler drivers are exposed to various risk factors which make these individuals vulnerable to cardiovascular diseases.

Objective: To assess the knowledge on cardiovascular diseases (CVD) among three-wheeler drivers in the Anuradhapura police division.

Methodology: A community-based descriptive cross-sectional study was done among 383 three-wheelers in the Anuradhapura police division. An interviewer-administered questionnaire was used to collect data. Data were analyzed by SPSS 25 (Statistical Package of Social Sciences). Data were analyzed in descriptive statistics.100 three-wheeler parks were selected by convenience sampling method based on the distance, among these participants were randomly selected from the list of auto drivers.

Results: The age range was 23 to 75 years and the mean age was 50.07 years (SD=10.303). More than fifty percent (51.2%) had an average knowledge of CVDs. The average score of the knowledge was recorded as 68.029 (SD= 11.489). The majority of the participants understood "heart disease" as a blockage in the heart (97.1%) and they only knew the heart is an organ affected by CVDs (96.3%). Only 22.2% identified pain on the left side chest & arm as the symptom of a heart attack. Most of the participants (81.2%) were aware high blood sugar can cause heart disease. The majority of the participants (92.2%) knew that sudden death may occur due to CVD, whereas none of them was aware kidney failure also can occur due to CVDs. The risk factors of CVD identified by many of them were: Smoking (98,2%, oily foods (98.2%), sitting a long time per day (97.4%), Increased salt intake (83.8%), obesity (95.3%), work-related stress (82.2%), sleeping disturbance (85.1%), high blood sugar (86.4%), and high blood pressure (90.9 %). However, almost all of them (99%) were not aware of alcohol, also one of the risk factors.

Conclusion: Nearly half of the participants (48.8%) had poor knowledge on cardiovascular diseases. Conduction awareness programme on cardiovascular risk factors, especially hazardous effects of consumption of alcohol is mandatory.

Keywords: Cardiovascular diseases, Heart diseases, Three-wheeler drivers, Risk factors.

Awareness, attitude, and utilization of psychological counselling and guidance among undergraduates at the University of Jaffna

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Introduction: Psychological counselling and guidance is a recently discovered, modern way of solving problems. Most of the time, it involves clarifying matters and showing possibilities to the client.

Objective: To assess the awareness, attitude, and utilization of psychological counselling and guidance among undergraduates at the University of Jaffna.

Methodology: This institute-based descriptive cross-sectional study was conducted among 426 undergraduates of the University of Jaffna. Data was collected using a self-administered questionnaire and SPSS 25 software was used to analyse the data. Descriptive statistical test; mean, frequency, percentages were used to analyse the data. Five faculties were selected by convenience sampling method and participants were selected from each faculty by proportionate random sampling method.

Results: University students (87.4%) were aware of the University counselling services and guidance. The majority (42.9%) got this awareness through their orientation programmes. Many (32.5%) approached counsellors for academic problems. Among them (78.9%) believed university counselling was a good service and was important to release their stressors (25.2%). However, (94.3%) of participants had never utilized the University counselling system. Only a few (5.7%) were used. Some (45.5%) were not satisfied with the service offered.

Conclusion: The majority of the participants were aware of university counselling services at A positive attitude was observed among participants towards counselling services. Although the counselling centre offers a variety of services, most of the participants were not aware of it and those who used the counselling services were less.

Keywords: Awareness, Attitude, Utilization, Psychological counselling and guidance

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