

URSFMAS-2021

13th and 14th of October 2021



**Third Undergraduate Research Symposium
Faculty of Medicine and Allied Sciences
Rajarata University of Sri Lanka - 2021**

Abstracts of Poster Presentations

**Faculty of Medicine and Allied Sciences
Rajarata University of Sri Lanka**

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Abstracts of Poster Presentations of 3rd Undergraduate Research Symposium of Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka - 2021

16th October 2021

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Message from the Vice Chancellor Rajarata University of Sri Lanka



As the Vice Chancellor of Rajarata University of Sri Lanka, it gives me a great pleasure to send this message to the 3rd Undergraduate research symposium organized by the Faculty of Medicine and Allied Sciences.

This symposium comprises a broad spectrum of researches done by 3rd year students of Faculty of Medicine and Allied Sciences. A big applaud should be given to the parties who introduced a research component to these students, familiarizing them with the concepts of a scientific research. I'm certain that this opportunity would be of great help to these young researchers in their future career and I sincerely hope that this will encourage these students to involve in more scientific studies. I would like to take this opportunity to congratulate the organizing committee of the symposium and also to convey my best wishes to all those junior researchers of Faculty of Medicine and Allied Sciences.

Dr. B. A. Karunaratne,
BSc, MSc, PhD
Vice Chancellor
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Message from the Dean Faculty of Medicine and Allied Sciences



Research is an essential skill of a doctor in the 21st century. The clinician researchers are hard to find even in the developed world and they are highly valued for their contribution to improved patient care.

Despite being one of the youngest medical faculties in the country, we have already included research as an integral part of the undergraduate medical curriculum and have successfully conducted the First and Second Undergraduate Research Symposium in 2018 and 2019 consecutively.

This year, the Faculty of Medicine and Allied Science, Rajarata University of Sri Lanka conducts the Third Undergraduate Research Symposium as a virtual conference. I wish to thank students, supervisors, academic staff of the Community Medicine Department and all other non-academic staff members who strived to make this event a success.

I wish all the students who genuinely carried out their research a successful future!

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Message from the Head Department of Community Medicine



The importance and compulsion of integrating scientific research training into undergraduate medical curriculum is widely emphasized across the globe. The research process not only allows students to build up their scientific research knowledge, but also contributes to develop higher order research competencies such as critical-thinking, problem-solving and life-long learning.

Hence, in line with the global trends in medical education, the Faculty of Medicine and Allied Sciences (FMAS), Rajarata University of Sri Lanka (RUSL) has introduced the 'Research in Medicine' module early in the undergraduate medical curriculum.

As the Head, Department of Community Medicine and as the Module coordinator of the 'Research in Medicine' module, it is indeed a great pleasure to witness the fruitful results of the hard work of all the undergraduates, who have conducted research in a wide spectrum of important health related topics.

I would like to congratulate all 32-research groups, whose research findings will be featured in the Third Undergraduate Research Symposium of FMAS, RUSL and also would like to thank all academic supervisors for their invaluable guidance throughout the period.

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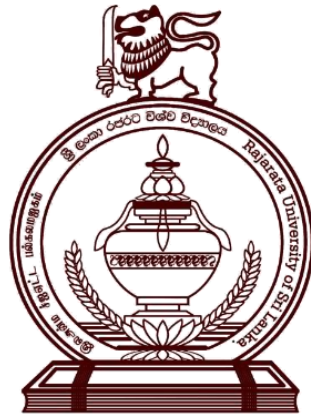
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Abstracts of Poster Presentations



PERSONALITY TRAITS AMONG PRE-CLINICAL AND PARA-CLINICAL MEDICAL STUDENTS IN FACULTY OF MEDICINE AND ALLIED SCIENCES, RAJARATA UNIVERSITY OF SRI LANKA – CROSS SECTIONAL STUDY

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Background: Personality traits are used to distinguish internal properties of individuals from their behaviour and investigate their causal relationship. The personality of a medical student is important to understand the future direction in their carrier pathway. Personality traits were not tested in the present population.

Objectives: The aim of the study was to describe personality traits among pre-clinical and para-clinical medical students in Faculty of Medicine and Allied Sciences (FMAS), Rajarata University of Sri Lanka (RUSL).

Methods: A descriptive cross-sectional study among medical students of FMAS, RUSL was conducted with the ethical clearance from the Ethics Review Committee, FMAS, RUSL, selected by non-probability conventional convenience sampling. The Big-five personality-trait test validated to Sri Lankans was used as a self-administered questionnaire. According to the scoring protocol in the test manual, personality traits were decided as, extraversion (EXVS), agreeableness (AGB), conscientiousness (CNT), neuroticism (NRT), openness-to-experience (OPE) and mixed traits (MXT). Data were analyzed using SPSS software for windows and presented as percentages of the total sample.

Results: Participants were 401 medical students with mean (\pm SD) age of 23.4 (\pm 4.1) years were participated. Of them, 119 (29.7%) were males and 282 (70.3%) were females representing both pre-clinical (n=261) and para-clinical (n=140) courses. Prevalence of the OPE, AGB, CNT, EXVS, NRT and MXT among para-clinical students were 52.1% (73), 22.1% (31), 20.0% (28), 3.6% (5), 0.71% (1), 2% (2) and among pre-clinical students were 45.2% (118), 27.2% (71) 18.4% (48), 1.9% (5), 2.3% (6), 5.0% (13).

Conclusion: Openness was the most prevalent personality trait among pre and para medical students while ‘neuroticism’ being the least among para-clinical and Extraversion being the least among pre-clinical medical students in FMAS, RUSL according to the Big five personality trait model.

Keywords: Big five personality traits, Medical students, Personality traits

**ADVERSE EFFECTS OF IRON CHELATION THERAPY IN THALASSEMIA
PATIENTS AT TEACHING HOSPITAL ANURADHAPURA –
A CROSS-SECTIONAL STUDY**

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Background: Thalassemias are genetically determined blood dyscrasias. The management of transfusion-dependent thalassemia involves iron chelation therapy. Iron chelation therapy revolves around three drugs: Desferrioxamine, Deferiprone and Deferasirox.

Objectives : The objective of this study is to determine the prevalence of adverse effects of iron chelation therapy in transfusion-dependent and non-transfusion-dependent thalassemic patients who are at Teaching Hospital Anuradhapura (THA).

Methods: This descriptive cross-sectional study was conducted at the thalassemia ward (28) in THA. Data were collected using an interviewer-administered questionnaire from thalassemic patients and their parents and guardians.

Results: Among 73 participants, 14(19.2%), 15(20.5%), 1(1.3%) and 44(60.3%) subjects were administered Deferasirox, Desferrioxamine, Deferiprone and a combination of Deferasirox and Desferrioxamine, respectively. 25, 52, and 1 expressed the adverse effects of Deferasirox, Desferrioxamine, and Deferiprone, respectively. Arthralgia - 1.9% (1/52), skin reactions – 26.9%(14/52), deafness – 1.9%(1/52), vision impairment – 7.6%(4/52), myalgia – 3.8%(2/52), nausea – 5.8%(3/52), abdominal pain – 19.2%(10/52), vomiting – 13.5%(7/52), diarrhea – 1.9%(1/52), urine discoloration – 84.6%(44/52), bone disorders – 3.8%(2/52) were observed among subjects expressing adverse effects of Desferrioxamine. Skin Reactions – 13.5% (7/25), vision impairment – 4% (1/25), nausea – 12% (3/25), gastrointestinal hemorrhage – 8% (2/25), vomiting – 32% (8/25), diarrhea – 4% (1/25), urine discoloration – 84% (21/25), alopecia – 8% (2/25) were observed among the participants expressing adverse effects of Deferasirox. The participant on Deferiprone therapy showed signs of ulnar deviation.

Conclusion: No new adverse drug reactions were discovered. Only previously documented adverse drug reactions for these three drugs were observed. But our findings suggest the need for further research into the prevalence of adverse drug reactions of Iron chelation Therapy to enable hospitals to better utilize resources for the management of adverse drug reactions for these three drugs.

Keywords: Deferasirox, Desferrioxamine, Thalassemia

EFFECT OF DIFFERENT TYPES OF COMMERCIALLY AVAILABLE DINNER FOOD ON FASTING BLOOD GLUCOSE LEVEL (FBS) AND TRIACYLGLYCEROL (TAG) LEVEL

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Background: Fasting blood sugar (FBS) is one of the main parameters used for screening, diagnosis, management, and monitoring diabetes mellitus. Therefore, any factor that significantly affects the FBS will interfere with the diagnosis and management of diabetes.

Objectives: The aim of the study was to determine the effects of various types of commonly consumed Sri Lankan dinner food (rice and curry, fried rice, kottu and soup with bread) on FBS and TAG in healthy individuals.

Methods: Cross-sectional experimental study was conducted with 10 healthy individuals (age between 22-26 years, BMI within 18 – 23kg/m², FBS < 110mg/dl, TAG < 150mg/dl), selected by simple random sampling. Four dinner food (portion size= 300g) 1) rice and curry (838kcal), 2) fried rice (932 kcal), 3) *kottu* (937kcal) and 4) vegetable soup with bread (422kcal) were provided to the participants for the dinner and after 8-10 hours fasting, FBS and TAG levels were measured on the next day morning using Glucose oxidase assay kit, and TAG colorimetric assay kit respectively. Presence of significant difference in mean FBS and mean TAG relevant to the food types, at 95% CI were measured using ANOVA Tukey's posthoc test.

Results: Soup and bread meal (light diet) showed significantly lower ($p < 0.05$) mean FBS (72mg/dL) compared to all other food. A significantly lower FBS value was obtained for rice and curry meal ($p < 0.005$) compared to kottu and fried rice while there was no significant difference ($p = 0.666$) between kottu and fried rice. TAG levels were not statistically significant among all meals.

Conclusion: Soup and bread meal for dinner has the lowest effect on FBS. Fried rice and kottu for dinner significantly increase the FBS level compared to soup and rice and curry meals. None of the tested meals for dinner significantly change the fasting TAG.

Keywords: Diabetes mellitus, Dinner foods, Fasting blood sugar, Triacylglycerol

**LEARNING STYLE AND ENGLISH LITERACY ON EXAMINATION
PERFORMANCE OF MEDICAL UNDERGRADUATES AT FACULTY OF MEDICINE
AND ALLIED SCIENCES, RAJARATA UNIVERSITY OF SRI LANKA: - A
DESCRIPTIVE CROSS-SECTIONAL STUDY**

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Background: Medicine is one of the most challenging fields of tertiary education. In Sri Lanka, students with highest z-score rankings at Advanced-Level examination are selected for medical undergraduate programme. Despite their excellent pre-university results, some students are failing at different examinations during the course. Hence it is imperative to understand the possible reasons for these failures.

Objectives: We aimed to identify the effect of learning style and English literacy on the students' performance at 2nd MBBS examination, the first bar exam in medical degree programme.

Methods: A descriptive cross-sectional study was performed among 175 medical students who sat for 2nd MBBS examination in May-2019. We used pretested Sinhala and Tamil translations of Kolb learning style questionnaire to identify their preferred learning style. Socio-demographic data and English literacy in terms of A/L English results were collected through a separate self-administrated questionnaire. As per the stipulated criteria, participants were categorized into 4 learning styles; activist, reflector, theorist and pragmatist. Effects of English literacy and learning style on exam performances were analyzed using Chi-square test, taking p value <0.05 as significant.

Results: A total of 145 (83%) students responded. Mean age was 24.91 years (SD=0.957) and majority were females 54% (n=78). Preferred learning style among participants with unimodal learning style (n=128, 88%) was 'Reflector' (n=96, 66.2%). We did not find a significant association between learning style and examination performance (p=0.311). However, a significant association with A/L English results and examination performance was noted (p=0.010). Examination performance was significantly high (p=0.005) among individuals with higher grades for A/L English exam.

Conclusion: Reflector learning style which favours analytical learning is the most preferred learning style among medical students and English literacy has a significant influence on their academic performance. Activities to improve the English literacy of students, before and during undergraduate learning should be encouraged.

Keywords: English literacy, Examination performance, Learning style

PATIENTS' PERCEPTION AND IMPACT OF CUTANEOUS LEISHMANIASIS - A DESCRIPTIVE CROSS-SECTIONAL STUDY

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Background: Prevalence of cutaneous leishmaniasis (CL) in Sri Lanka is gradually increasing. Despite multiple efforts to explore the local situation of CL, knowledge on disease awareness and perception is scarce.

Objectives: We aim to explore the epidemiology, awareness and perception of CL among patients.

Methods: Adults presented to the dermatology clinic, Teaching hospital, Anuradhapura with the clinical diagnosis of CL were recruited for this prospective-cross-sectional study from August-September,2020. An interviewer-administered questionnaire was used in data collection.

Results: Total of 58 patients were recruited for the study (33-males;55.9%) with a mean age of 43.8years (SD,15.8). Twenty-eight (48.27%) were outdoor workers, with twenty-one (36.21%) being farmers. Over 90% had delayed treatment seeking due to unawareness and majority of them had a lower level of formal-education (34/58;58.62%). Fifty-three (91.37%) had their condition diagnosed correctly at primary care level. Over80% of the participants lost at least a day's work every fortnight for treatment with an average additional out-of-pocket expenditure of Rs.389 per visit. Twenty-four (41.4%) had CL-lesions on arms, while twenty-two (39.3%) had lower limb lesions. Twenty-five (41.1%) patients felt uncomfortable and eight (13.79%) changed their clothing pattern due to CL-lesions. Thirty-eight (53.3%) showed one or more forms of stigma due to CL and 3% experienced negative responses even from close companions.

Conclusion: CL awareness among public is low even within endemic settings like Anuradhapura. CL is associated with a substantial amount of psycho-social burden including stigma. Further exploration and effective-interventions to improve the awareness and psycho-social well-being is imperative.

Keywords: Cutaneous leishmaniasis, perception, stigma

KNOWLEDGE AND ATTITUDES REGARDING SUBSTANCE USE AMONG SECOND YEAR MEDICAL STUDENTS IN RAJARATA UNIVERSITY OF SRI LANKA

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Background: Substance use and abuse is a significant problem in the Sri Lankan society, including university students. Studies conducted in this area in Sri Lanka are scarce.

Objectives: The aim of the current study was to assess the knowledge and attitudes towards substance use among second year medical students in Rajarata university of Sri Lanka.

Methods: A descriptive cross-sectional study was conducted among all consenting second year medical students of the Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka. Data was collected via a self-administered questionnaire. Ethical approval was obtained from the Ethics Review Committee, Faculty of Medicine & Allied Sciences, Rajarata University of Sri Lanka and informed written consent was taken from all the participants. Data was analyzed using SPSS statistical analysis software.

Results: 49(27.4%) male students and 130(72.6%) female students participated in the study. Awareness of substances such as crystal meth($p<0.05$), cocaine($p<0.05$), LSD($p<0.05$) and pharmaceutical tablets($p<0.05$), and the knowledge towards the illegality of crystal meth ($p<0.05$) was significantly higher among male students when compared to female students. Awareness of substances and the knowledge that heroin and marijuana are illegal was significantly higher among Buddhist students, when compared to students of other religions($p<0.05$). Buddhist students were also more aware that smoking may cause loss of libido($p<0.05$). Students from rural home areas were more aware of toddy, when compared to those whose home areas are urban($p<0.05$). Only 12.7% of female students and 14.6% of male students approved of their partner using any kind of substance($p>0.05$).

Conclusions: Awareness of substances and the knowledge of the illegality of some substances were significantly higher among male university medical students and the Buddhist religious group. Despite the high substance use reported in Sri Lanka, only a few male and female students approved of their partner using any kind of substance.

Keywords: Attitudes, Knowledge, Substances

BARRIERS IN OCCUPATION & SERVICE PROVISION OF PUBLIC HEALTH MIDWIVES IN ANURADHAPURA DISTRICT

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Background: In Sri Lanka, Public Health Midwife (PHM) plays a significant role in providing essential services to uplift the health of adolescent girls, women, mothers & children in the country. While providing a standard quality care, PHMs have certain barriers in their occupation.

Objectives: To find out barriers which affect in service provision & ideas to improve quality of work of PHMs of Medical Officer of Health (MOH) areas in Anuradhapura District.

Methods: A descriptive cross-sectional study was conducted in 19 MOH areas using a pre-tested, self-administered questionnaire covering eight main domains of problems faced by PHMs.

Results: Among 188 PHMs recruited, main problems were delayed payment of overtime expenses 87.8%(n=165) and not getting office allowance 87.7%(n=164) respectively. Conflicts with PHNS 4.3%(n=8) and other staff members 5.9%(n=11) were the least common problems. 85.0%(n=159) weren't paid with enough transport expenses. 71.4%(n=130) stated that inadequate provision of knowledge on equipment was a major problem and 66.7%(n=124) didn't have enough knowledge on new technology-based data processing. 65.9%(n=122) stated lack of volunteers for help was a major problem while lack of space in clinic centers was a problem for 62.8%(n=115). 43.1%(n=81) had high stress levels in job related tasks.

Among their suggestions, 43 demanded motorbikes and to increase transport allowance. Introducing a telecommunication allowance was suggested by 45 and 26 asked for allocation of new equipment for data collection. 15 PHMs suggested to allocate a nearby MOH area to residence while 22 suggested to reduce the service area. 38 PHMs requested workshops for introducing new technology and 44 PHMs stated that it's better to pay their allowances without a delay.

Conclusion: In their service provision, problems regarding allowances and salary act as the major barrier for PHMs. Appropriate interventions by relevant authorities could further uplift the service provision of public health midwives to a better level.

Keywords: Barriers, PHM, Service

AWARENESS OF CARPAL TUNNEL SYNDROME AMONG PATIENTS AGED 20-65 YEARS ADMITTED TO SURGICAL AND MEDICAL UNITS OF BASE HOSPITAL THAMBUTTEGAMA AND PREVALENCE OF THE DISEASE AND ITS MANAGEMENT STRATEGIES

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Background: Carpal tunnel syndrome (CTS) is a medical condition due to compression of the median nerve inside the carpal tunnel. Many Sri Lankans with clinical symptoms of CTS affecting their quality of life are unaware of the disease and treatment options, hence do not complain. Usage of Boston Carpal Tunnel Syndrome Questionnaire (BCTQ) as a diagnostic tool would make the patient and the medical staff aware of this condition and management options.

Objectives: To assess the diagnostic accuracy of BCTQ with clinical diagnosis of CTS. To determine the prevalence of CTS among patients between 20 to 65 years of age who are admitted to the surgical and medical units of Base Hospital, Thambuttegama in Sri Lanka and their level of awareness of the disease and its management plans.

Methods: A hospital based; descriptive cross-sectional study was conducted among patients of 20-65 years with 3 interviewer administered questionnaires. Patients who were equal or greater than 12 in symptom severity scale were considered positive or equal or greater than 9 in functional scale of BCTQ. The patients were confirmed as diseased for CTS by clinical diagnosis through a qualified medical practitioner. Out of 186 participants, 150 were qualified for the study.

Results: 64.7% of participants were female (97) and 35.3% were male (53). Mean age was 46.57 years. 61 individuals out of 150 participants were tested positive (40.7%) for CTS by clinical diagnosis. BCTQ has a sensitivity of 96.72%, specificity of 92.13%, PPV of 89.3% and NPV of 97.6% when compared with clinical diagnosis.

Conclusions: Awareness about the disease and its management strategies are very low among the participants, and larger community-based education and awareness programs are recommended for improved quality of life and reducing disability burden in the society. BCTQ is useful in diagnosing CTS when physical examination cannot be performed as in the current pandemic situation.

Keywords: Carpal tunnel syndrome, BCTQ, median nerve disease, hand numbness

**EXPLORATION OF PERCEPTION ON SEXUAL EDUCATION
AMONG EDUCATION STAKEHOLDERS AND KNOWLEDGE ON SEXUALITY AND
SEXUAL BEHAVIORS OF GRADE 9-12 STUDENTS OF SCHOOLS
IN ANURADHAPURA MUNICIPAL AREA.**

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Background: Sexual education is important in improving reproductive health and preventing social problems.

Objectives: The present study was conducted to assess the present textbook content, quality of delivery, stakeholder perception and knowledge, attitude, behavior with regards to sexuality among school students.

Methods: Content of the grade 6-11 school textbooks were assessed qualitatively. A cross-sectional analytical study was conducted in the schools of the Anuradhapura municipal area. The data were collected from grade 9-12 students, parents, and teachers using pre-tested self-administered questionnaires.

Results: Textbooks were mainly focused on structure and function of the reproductive system. The sample consisted of 649 students, 49 parents and 41 teachers. Anatomy and physiology of reproductive system, sexually transmitted diseases, and secondary sexual characteristics were the topics most frequently discussed at the school; 95.5%, 85.2% and 81.5%. Details about contraceptive methods, masturbation, reproductive rights and sexual act were discussed with one third of students. Half [51.5%] of the students selected the school as the main source of information for sexual education. Around 40% has stated that the sexual education given by the text books is adequate [39.7%] and teachers convey whole textbook contents at school [40.9%]. Less than one third [29.3%] and 36.6% teachers have stated that the content in school textbooks and allocated time period for sexual education is adequate. Only 29.3% reported that they feel uncomfortable when teaching about sexuality of school. More than half [55.1%] of parents reported that they feel uncomfortable to discuss about sexuality with their child. Nearly half [46.9%] of parents stated that sexual education provided by school is inadequate.

Conclusion: The school is the most appropriate place to provide sexual education. Most of the students, parents and teachers feel that the sexual education provided by school is inadequate. In depth exploration is important to expand the content.

Keywords: School curriculum, Sexual education, Sri Lanka

PARENTS' KNOWLEDGE ON EXCESS SCREEN TIME

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Background: Excess screen time is known to be associated with adverse health consequences in children, such as impaired language development and obesity. Preschool children are the most vulnerable group that can be affected by this.

Objectives: This study was conducted to assess the knowledge of parents of preschool children in Anuradhapura Municipal Council area regarding excess screen time.

Methods: This cross-sectional descriptive study was conducted using a printed and online self-administered questionnaire. Data was collected from parents of preschool children after taking informed consent.

Results: A total of 223 individuals responded to the study and 73.1% of responders were mothers. Median age of responders was 34 years and 31.8% had tertiary education while 26% had education only up to the ordinary level. Among children, 22.9% had average screen time less than one hour per day while 8.9% had more than 3 hours a day while 35.9% and 32.9% had screen times of 1-2 hour and 2-3 hour respectively. Entertainment (77.5%) and education (80.3%) are the common use of digital screens while 22.1% children needed screens during feeding time. Only 3.6% children had demonstrated some developmental or behavioural issues.

Majority of parents (78.3%) had some knowledge about harmful effects of excess screen time and 83.4% of parents had taken steps to limit screens. Only 11.55% parents believe that their children are unnecessarily attached to screens. Health care professionals and media were the most important source of knowledge that accounted for 51.9% and 59.6% respectively. Parents' education levels ($p=0.015$) are significantly associated with the knowledge on harmful effects of screens.

Conclusion: Majority of parents have some knowledge regarding harmful effects of digital screens. Both health care workers and media can play a significant role in improving this awareness further.

Keywords: Knowledge, Pre School children, Screen time

USAGE AND PERCEPTIONS OF TRADITIONAL MEDICINE AMONG CKD PATIENTS ATTENDING TO TEACHING HOSPITAL ANURADHAPURA

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Background: Sri Lanka is listed as a geographic “hot spot” of Chronic Kidney Disease (CKD) ¹. North Central Province has a high prevalence of CKD; especially in agricultural communities. Traditional Medicine (TM) is in wide practice and commonly used in Sri Lanka. Use of TM is observed among CKD patients as well.

Objectives: To assess the usage of Traditional Medicine and perceptions about TM among CKD patients attending to THA.

Methods: This Quantitative research study was carried out using primary data collected from 279 CKD patients who attended to clinics at Teaching Hospital Anuradhapura (THA) from 2020.03.16 to 2020.04.12. Patients who attended to Nephrology and Medical clinics were - included in the study based on convenience sampling technique during the analysis. A self-administrated questionnaire was used as the Data collection tool. IBM SPSS was used for data analysis.

Results: 13.3% (37 participants) of CKD patients attending to clinics at TH Anuradhapura use TM. 86.7% (242) use western medicine only. The below Analysis is based on the 37 participants who use Traditional medicine. Out of the 37 patients using TM 10 (27.02 %) were currently using TM along with western medicine. 27 (72.9%) have used it at some time during their CKD treatment. Several forms of TMs were used; Ayurveda 26(70.3%), Hela wedakama 6 (16.2%), Unani 1 (2.7%) and other forms 4 (10.8%). Out of the reasons for using TM; Time saving and local availability was the most common reason 12(32.4%) while other reasons being unwillingness to use western medicine 2 (5.4%), Influenced by others 11 (29.7%), Feeling comfortable while doing treatment 4(10.8%), Not satisfied with western medicine 4 (10.8%) and Other 3 (8.1%). Out of the 279 Patients who have not used TM, 28(10%) have an expectation to use TM in future. 52 (18.6%) have Positive perceptions and 137 (49.1%) have negative perceptions while 90 (32.3%) have no idea about TM use in CKD.

Conclusion: Based on the Descriptive statistics derived from the Collected data it was concluded that the majority of CKD patients have a negative perception about TM but about one fourth of CKD patients have used or is expecting to use TM. The results of this study might give new insight for future researches.

Keywords: CKD, Perceptions, Traditional medicine

PREVALENCE OF CRYSTALLURIA AMONG 21 TO 25 YEARS OLD MEDICAL STUDENTS OF RAJARATA UNIVERSITY OF SRI LANKA: A DESCRIPTIVE CROSS-SECTIONAL STUDY

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Background: Presence of crystals in urine is known as crystalluria. Urine crystals are present in both normal and pathological conditions. Supersaturation of urine is the main cause for the crystal formation. Urinary stones are formed by the interaction between renal epithelial cells and calcium oxalate crystals and / or oxalate ions.

Objectives: To determine the prevalence of crystalluria and the relationship between crystalluria and selected socio-demographic factors among medical students of Rajarata university of Sri Lanka (RUSL).

Methods: A descriptive cross-sectional laboratory-based study was conducted. Midstream urine samples were collected from the participants. They were asked to fill in the questionnaires after that. Urine samples were refrigerated overnight at 4°C. Next morning 1 ml were pipetted out and centrifuged at 3000 rpm for 5 minutes in eppendorf tubes using a micro-centrifuge. Supernatant was discarded by inverting the tubes and 20µl was placed on a glass slide, covered with a coverslip and examined under the microscope. A digital photograph of every slide was taken.

Results: Sample consisted of 138 medical students (98 males, 40 females). 32.65% (32/98) of males and 22.5% (9/40) of females had crystalluria. Total number of students having crystalluria was 29.71% (41/138). Gender (P = 0.239) was not significantly associated with the prevalence of crystalluria.

Conclusion: Nearly one third of Medical Students of RUSL who were tested were having crystalluria.

Keywords: Crystalluria, Medical students, Prevalence

MICROBIAL COLONIZATION IN THE CANTEEN AND THE FOOD HANDLING MEASURES AMONG CANTEEN STAFF AT FACULTY OF MEDICINE AND ALLIED SCIENCES, RAJARATA UNIVERSITY OF SALIYAPURA, SRI LANKA

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Background: Food is a good source for bacterial growth because it has high nutrient content and moisture. Microbial colonization in food and food handling surfaces may lead to food intoxication and infections.

Objectives: To assess the microbial colonization at the faculty canteen and hygienic practices among canteen staff at FMAS, RUSL, and Saliyapura to ensure food safety.

Methods: Samples were taken from the surfaces of the food preparation area, dining area and retail area using moisten sterile swabs trice in a single day. Swabs were inoculated on blood, MacConkey agar and incubated at $35 \pm 2^{\circ}\text{C}$. Cowen and Steel manual was used for identification of microbes. An interviewer administered questionnaire was used to assess the current infection control practices, and data were expressed as percentages.

Results: Ninety samples were collected and from that total of 141 bacteria were isolated. Of them, 5 (3.5%) MRSA, 1 (0.7%) *Pseudomonas aeruginosa*, and 1(0.7%) *Escherichia coli* were identified. Out of 5 MRSA, 1 (20%) was isolated from the retail counter, 2 (40%) were isolated from both the dining area and the kitchen. *E. coli* and *P. aeruginosa* were isolated from the kitchen. All kitchen staff and retail staff wear aprons and chef hats, but they did not wash and change them daily. All kitchen staff and retail staff practice hand washing before handling food. The cleaning staff cleans the dining area every morning and following lunch and dinner. The cleaning staff used different chemical compounds for cleaning, but they lack the proper knowledge to use them efficiently.

Conclusion: All three areas of the canteen is colonized with several potential foodborne pathogens. Reinforcement of infection control practices and regular auditing are demanding. Screening canteen staff for MRSA carrier state and decolonization is recommended.

Keywords: Canteen, Microbial colonization, MRSA and Staff food handling measures

**QUALITY OF LIFE AND SYMPTOM CONTROL AMONG ASTHMATIC PATIENTS
ATTENDING THE RESPIRATORY CLINIC OF TEACHING HOSPITAL
ANURADHAPURA, SRI LANKA**

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Background: Asthma is a common global public health concern with a significant negative influence on the quality of life (QoL). However, the QoL of adult Sri Lankan asthmatic patients has not been adequately studied.

Objectives: To determine the QoL and symptom control among physician-diagnosed asthmatic patients, attending the respiratory clinic of Teaching Hospital Anuradhapura, Sri Lanka.

Methods: A descriptive cross-sectional study was conducted in the respiratory clinic of Teaching Hospital Anuradhapura in August-2020 to assess the QoL and asthma control in adult asthma patients. We selected 100 consecutive physician-diagnosed asthma patients. Data collection tools were the mini-asthma quality of life questionnaire (AQLQ) and asthma control questionnaire (ACQ) which were validated and culturally-adapted to Sinhalese and Tamil.

Results: From the selected patients, 85 participants completed the questionnaire. Out of them 76 (89.4%) were females. The mean age of participants was 56 years \pm 13. The mean total asthma related QoL score was 4.44 ± 1.47 on a 7-point scale, with 47 (55.3%), 50 (58.8%), 41 (48.2%) and 29 (34.1%) participants reporting good asthma-related QoL in the symptoms, activity limitation, emotional function and environmental stimuli domains, respectively. Asthma related QoL was not associated with age, gender, level of education, annual income and other socio-demographic factors. However, asthma is well controlled only in 29 (34.1%) participants, and 15 (17.6 %) participants had borderline control and 41(48.2%) had poor control. Asthma symptom control was associated with good QoL ($P < 0.01$).

Conclusion: Poor asthma-related QoL and inadequate control of symptoms in more than half of the study sample suggest the need for regular lung function assessment-based patient care and patient education based on asthma symptom control and QoL improvement.

Keywords: Asthma, Quality of Life, Asthma symptom control

PREVALENCE AND ASSOCIATED MATERNAL RISK FACTORS OF LOW-BIRTH-WEIGHT IN CHILDREN BORN AT BASE HOSPITAL THAMBUTTEGAMA, ANURADHAPURA DISTRICT, SRI LANKA

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Background: Sri Lanka is a country with a good health system, still low birth weight (LBW) is a major public health problem. LBW is associated with many neonatal and child mortalities and morbidities.

Objectives: This study was designed to determine the prevalence and different maternal factors associated with LBW in children born in base hospital Thambuttegama.

Methods: Study was conducted as a descriptive cross-sectional study. Data of 299 women who delivered children from February to May 2020 at Thambuttegama base hospital have been used. Cases were crosslinked with the already available Rajarata pregnancy cohort data for the analysis. Analysis was done using SPSS statistics software.

Results: 299 mothers were recruited for the study and the mean age of the sample was 27.82(SD=5.463). The majority (97%, n=290) were Sinhalese. 29.1%(n=87) were at their first pregnancy while 67.8%(n=212) of the mothers were at gravida two or more. The prevalence of LBW in the sample is 13.8%(n=41) with the mean birth weight of 2.929kg (SD=0.425). Among LBW deliveries majority delivered on or before 38 weeks of POA (71.4%, n=25). And 73.2%(n=28) were at their second pregnancy or more. 61.5%(n=24) of the mothers with LBW babies are younger than 30years of age. 39%(n=16) mothers with LBW infants reported as overweight or obese. 22.7%(n=9) of the mothers with LBW child this pregnancy had a LBW child at her first pregnancy as well. 29.4%(n=10) mothers with LBW babies who had exposure to secondhand smoking in the household.

Conclusion: LBW in the studied population is higher than the national value. A further in-depth analysis will be necessary to identify the causative and associated factors.

Keywords: Low birth weight, Maternal and child health, Sri Lanka

EFFECT OF MUSIC ON SHORT TERM MEMORY OF MEDICAL UNDERGRADUATES IN RAJARATA UNIVERSITY OF SRI LANKA

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Background: Studies on music have shown important beneficial effects on memory. In addition, music can be used to relieve mental stress. As a measure of relieving mental stress, medical students often tend to listen to music.

Objectives: To assess the impact of music under three different conditions (silent, calm, rock) on short term memory.

Methods: A cross sectional study was conducted among a group of randomly selected students of 2018/2019 batch of FMAS/RUSL. Recall memory task, forward and backward digit span tests were done under three conditions as mentioned above. One way repeated measures analysis of variance (ANOVA) was used to analyze the data using SPSS version 23.

Results: One hundred and two students participated in the study. One way repeated measure ANOVA was conducted to assess the effect of music on short term memory under three conditions; silent (no music), calm music and rock music. There was a significant effect of music in the performance of all three tests; in digit span forward $F(2, 100) = 33.28, p < .0001$, in digit span backward $F(2, 100) = 119.78, p < .0001$, in recall memory task $F(2, 100) = 49.1, p < .0001$. Pair-wise comparisons indicated significant ($p < 0.05$) positive effect of calm music compared to silence while rock music had significant ($p < 0.05$) negative effect for all test scores.

Conclusion: Short term memory may be enhanced by calm music. Secondly the current result suggests that silent environment influence positively on short term memory than rock music.

Keywords: Medical students, Music, Short term memory

EFFICACY OF INDIAN AND AUSTRALIAN POLYVALENT ANTIVENOMS IN NEUTRALIZING THE PROCOAGULANT EFFECTS OF FOUR SNAKE VENOMS

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Background: Comparative neutralisation of Sri Lankan saw-scaled viper (SSV), Merrem's Hump nosed viper (HNV), green pit viper (GPV) and Australian brown snake (BS) venoms by Indian polyvalent antivenom (IPAV) and Australian polyvalent antivenom (APAV) is poorly understood.

Objectives: Comparatively assess the procoagulant activity of the SSV, HNV, GPV and BS venoms. Determine the efficacy of IPAV and APAV in Neutralizing pro-coagulant effects of above four venoms.

Methods: Plasma minimum coagulation dose (MCD-P) based in-vitro study was conducted. MCD-P defined as minimum venom dose required to clot 200µl fresh frozen plasma (FFP), from 120seconds in a new 5ml glass tube, at 37⁰C without Ca²⁺. Minimum effective volume (MEV-MCD-P) of antivenom was defined as minimum volume of antivenom required to prolong the clotting time of MCD-P up to 240seconds. Varying volumes of APAV (batch no: AUST R 74899) and IPAV (Bharat, batch no: A05317123) were incubated with MCD-P of each venom separately (total volume of 50 µl) at 37⁰C for 30 min. The venom-antivenom mixture was added to 200µl of FFP and the clotting times were monitored. All experiments were triplicated.

Results: The MCD-P of BS, SSV, HNV and GPV were 42.8ng, 303.16ng, 2100ng and 2370ng respectively. The MEV-MCD-P of IPVA for SSV was 1.71µl and APAV did not cross-neutralise SSV. The MEV-MCD-P of APAV for BS was 0.12µl and IPAV did not cross-neutralize BS. The MEV-MCD-P of IPVA for HNV was 30µl and APAV did not cross-neutralize HNV. APAV and IPAV did not cross neutralise GPV.

Conclusion: IPAV and APAV neutralized the procoagulant activities of SSV and BS, in clinically meaningful antivenom doses. MEV-MCD-P indicated one vial of IPAV neutralizes only 700µg of HNV hence unlikely to be practically useful. Both antivenoms are not useful to treat GPV envenoming.

Keywords: Antivenom, Cross neutralization, Pro-coagulant activity

ASSOCIATED FACTORS AND OUTCOMES OF TEENAGE PREGNANCIES IN ANURADHAPURA SRI LANKA

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Background: Globally complications during pregnancy and childbirth is the main cause of deaths of teenage girls. Despite continuous preventive measures, teenage pregnancies remain as a main public health priority in Anuradhapura district. Therefore, continuous surveillance for risk factors and assessment of outcomes are essential for minimizing the burden of teenage pregnancies.

Objectives: The objectives of this study are to determine associated factors and outcomes of teenage pregnancies of Anuradhapura district.

Methods: Case control study to determine the associated factors and Retrospective cohort study to determine the outcomes of teenage pregnancies, were done on September 2020 in Rambewa, Nuwaragampalatha central and Mihinthale MOH areas of Anuradhapura. Mothers attending to vaccination clinics were recruited. Mothers who had their first pregnancy during teenage were categorized as cases(case-control) or exposed(cohort) group and mothers who had their first pregnancy after teenage were controls(case-control) or non-exposed(cohort) group. An interviewer administered questionnaire was introduced for consented mothers.

Results: There were 88(30.3%) teenage pregnancies and 202(69.6%) non teenage pregnancies. Having a friend who had a teenage pregnancy(aOR=2.6,p=0.001),husband's low education status(aOR=3.2,p=0.003), lack of knowledge about teenage pregnancy complications(aOR=1.9,p=0.031) and Moor nationality(aOR=1.9,p=0.001) were the independent predictors of teenage pregnancy. Lack of sex education of mother(chisq=6.6,p=0.011) and father(chisq=10.4,p=0.002),mother's low education status(chisq=50.7,p<0.000),having a sister who had a teenage pregnancy(chisq=12.482,p=0.001) were associated factors for teenage pregnancy. Suicidal ideation (RR=18.6,p<0.05) and suicidal attempts(RR=20.2,p<0.05) were significantly higher and significant proportion feel unhappy about pregnancy(p<0.001) among teenage mothers. Missing the first antenatal clinic before 12 weeks of POA, low birth weights, early loss of educational opportunities were significant adverse outcomes(p<0.05). No significant difference was observed in antenatal and postnatal complications to mother and baby between two groups.

Conclusions: Mental and social unfavorable outcomes of teenage pregnancies were more prominent than physical outcomes. Continuous surveillance for risk factors targeting diverse populations could be implemented as some of the identified risk factors were not established by previous studies.

Keywords: Teenage, Pregnancy, Sri Lanka

PRE-RETIREMENT PLANNING, ITS CORRELATES AND ASSOCIATION WITH MENTAL HEALTH STATUS AMONG ARMY OFFICERS IN SECURITY FORCES HEADQUARTERS WANNI

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Background: Global literature suggests that retired military personnel face great challenges in the transition from service to civilian life. Sri Lankan army officers retire early at a relatively younger age than other government workers in Sri Lanka. Thus, it is important to assess their status of pre-retirement planning (PRP), especially given the local evidence gap.

Objectives: To determine the PRP, its correlates and association with mental health status among army officers in Security Forces Headquarters, Wann

Methods: A cross-sectional study was conducted in the Security Forces Headquarters Wann - '21 Division' among army officers below the rank of the officer cadet using a self-administered questionnaire. The status of PRP was determined as satisfactory, using the 75th centile score as the cut-off value. Mental health status was assessed using validated Sinhala versions of the General Health Questionnaire-12 (GHQ-12) and the Copenhagen Burnout Inventory (CBI). Satisfactory PRP status was calculated as point and interval estimates. Odds ratios (OR) with 95% confidence intervals (CI) were computed to assess the correlates of PRP.

Results: Out of the 600 officers, 480 (80.0%) completed the questionnaire. The majority were males (n=467,97.2%). The mean (SD) age was 39.6 (4.8) years. Only, 28.3% officers had satisfactory PRP (95%CI=24.2-32.3). Bivariate analysis revealed that officers with other income sources (OR=4.5,95%CI=2.5-8.0;p<0.001), who had more than 10 years experience in the current post (OR=1.7,95%CI=1.0-2.9;p=0.046), whose having less than 5 years before retirement (OR=1.6,95%CI=1.0-2.6;p<0.001) were more likely to have satisfactory PRP. There were no significant associations of satisfactory PRP with having minor psychiatric morbidities (OR=0.7,95%CI=0.5-1.1;p=0.140) or burnout (OR=0.6,95%CI=0.4-1.0;p=0.079).

Conclusion: Despite having preparatory courses on PRP, the level of PRP among army officers in the study setting is low. Given that the officers with longer service experience have satisfactory PRP, it is recommended having such courses targeted from the early stages in the service.

Keywords: Army officers, Pre-retirement planning, Mental health status

PREVALENCE AND FACTORS ASSOCIATED WITH VISUAL IMPAIRMENT AND OTHER EYE-RELATED PROBLEMS AMONG UNDERGRADUATES OF RAJARATA UNIVERSITY OF SRI LANKA

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Background: University students are a vulnerable group to have visual problems as they are exposed more to work and study-related factors with potentially harmful effects on vision.

Objective: To assess the prevalence and factors associated with visual problems among undergraduates of Rajarata University of Sri Lanka (RUSL).

Methods: A descriptive cross-sectional study was conducted among students of 2015/2016 batch in RUSL. Data was collected using a pre-tested, self-administered questionnaire, and analyzed using descriptive statistics, chi-square test and odds ratio (OR).

Results: Total of 336 students participated, and majority (63.4%) were females. 132(39.2%) were having a diagnosed visual problem, mainly short-sightedness (118; 89.4%). Among them, 33(25%) were diagnosed after university entrance and 79(59.8%) reported worsening of visual problem after university entrance. The commonest eye-related complaints were eye strain (40.8%), short-sightedness (30.1%), eye irritation (21.4%) blurred vision (19.6%), dry eyes (15.5%), and 173(51.5%) reported headache. 122(36.3%) were wearing spectacles/contact lens while 14(4.2%) were using other treatment methods for eyes. Blurred vision showed a significant association with use of online/digital study notes (OR:1.868; 95% confidence interval [CI]:1.010-3.453) and sewing/knitting/handicraft as leisure activities (OR:2.635; CI:1.223-5.679). Headache showed significant association with social media use (OR:2.398; CI:1.478-3.890) and watching movies (OR:1.712; CI:1.097-2.673) as leisure activities. Students using reading glasses showed an increased risk of dry eyes (OR:3.506; CI:1.457-8.434), while those who do sewing/knitting/handicraft showed a higher risk of short-sightedness (OR:2.770; CI:1.138-5.734). Significant associations were observed between duration of viewing phone/tablet computer screen per day and blurring (p=0.010), eye strain (p=0.026) and headache (p=0.007). No significant association was observed between other factors related to study and sleeping habits, and eye-related problems.

Conclusion: Visual problems are common among students of RUSL, which showed association mainly with digital screen use. Therefore, students should be educated regarding the proper usage of digital screens and healthy practices to maintain good eyesight.

Keywords: Visual problems, Eye problems, University students, Digital screens, Study habits

KNOWLEDGE REGARDING BREAST CANCERS AMONG NURSING STUDENTS

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Background: Breast cancers are the most prevalent cancer type in women all over the world. It is important for health professionals to be aware of breast cancer prevention as their belief and behavior can have a profound effect on other women. Therefore, this study was designed to assess the knowledge regarding breast cancers among nursing students.

Objectives: General objectives are to assess the level of knowledge regarding breast cancers among nursing students in Nursing Teaching School Anuradhapura. Specific objectives are to assess the knowledge of identifying breast cancers, to determine the knowledge of breast examination, to assess the knowledge of the prevention of breast cancers.

Methods: Institution based descriptive cross-sectional study was conducted among 143 second year nursing students of Anuradhapura Nursing Training School (NTS), including both male and female students. A self-administered questionnaire was used to collect data on knowledge towards breast cancers. Data was analyzed via SPSS software and the result were expressed as percentages.

Results: Total participants 143 (Female- 82.5%, Male – 17.5%). 76.9% had more than 70% correct responses. (Mean - 74.54, SD - 6.935). 78.3% marked > 15/20 questions on identification correctly. 67.8% marked > 20/30 questions on examination correctly. 65.7% correctly marked > 20/30 questions on risk factors and diagnosis. Only 37.8% had correctly marked > 15/20 questions prevention. 87.4% of participants had trained on clinical breast examination.

Conclusion: This result indicated that the overall knowledge on breast cancer among nursing student in NTS Anuradhapura was very good.

Keywords: Breast cancer, Nursing student, Knowledge

PUBLIC VIEW ABOUT PROFESSIONALISM LAPSES AMONG SRI LANKAN DOCTORS

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Background: Professionalism lapses among Sri Lankan doctors have been much debate in the society recently.

Objectives: To explore professionalism lapses among Sri Lankan doctors

Methods: A qualitative study was conducted to obtain the views from school teachers in Anuradhapura District. Individual telephone interviews were conducted using interview guides and data saturation was reached on 10th interview. All the interviews were audio recorded, verbatim transcribed and analysed using inductive thematic analysis.

Results: Analysis of the data revealed five different themes; Problems in Clinicianship, lack of competency, lack of citizenship, inadequate workmanship and lack of good appearance. The interviewees expressed a mixed range of experiences which comprising happiness, gratitude, uncertainty and disappointment towards Sri Lankan doctors.

Conclusion: The professionalism lapses identified during the study according to the public perceptions, would provide a fruitful navigation to improve the quality of service given by the doctors.

Keywords: Doctors, Lapses, Professionalism

KNOWLEDGE AND ATTITUDES OF ANTIBIOTIC RESISTANCE AND MISUSE AMONG DOCTORS, AND ASSOCIATION BETWEEN THE LEVEL OF EXPERIENCE AND KNOWLEDGE ON ANTIBIOTICS USE IN A SINGLE CENTRE IN SRI LANKA

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Background: Recognition of the attitudes and perceptions of medical practitioners towards antibiotic resistance (AR), and assessing their knowledge on antibiotics use (AU) are crucial in planning future training and stewardship programmes.

Objectives: The study aims to assess the knowledge and attitudes towards AR and misuse among doctors and association between the level of experience (LE) and knowledge about AU among doctors.

Methods: The survey was administered including registered doctors (159) in Teaching Hospital Anuradhapura, divided into four groups based on LE. Percentages were calculated to determine the level of attitude towards AR, and the association between knowledge on AU and LE was calculated using one-way ANOVA.

Results: Antibiotic resistance was identified as a national issue by 95.0% and 68.6 % identified it as an institutional issue. A significant majority identified *Escherichia coli* and *Staphylococcus aureus* AR as a health care issue, and antibiotic misuse as its root cause. The most recognized causes of AR due to antibiotic misuse were the excessive broad-spectrum AU, excessive use of antibiotics on livestock and use of inadequate doses and multiple antibiotics. Drugs purchasing over the counter, using internet for self-medication and requesting doctors to prescribe antibiotics were recognized by a majority as community factors influencing AR. In contrary, only 15.7% were influenced by pharmaceutical representatives' advice. Only 17.6% had scored 50% or more in AU knowledge assessment (mean of 34.52, SD=15.16). There was no significant association between LE and knowledge on AU ($f=0.369$, $p=0.775$).

Conclusion: Even though the doctors are aware of AR and the major contributors of this development, poor knowledge on AU is a major contributing factor involved in antibiotic misuse and the development of AR.

Keywords: Antibiotic resistance, Antibiotic misuse, Knowledge

ASSOCIATED PARENTAL RISK FACTORS AMONG THE EPILEPTIC PATIENTS: A CASE CONTROL STUDY

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Background: Epilepsy is a common neurological disorder of the brain, affecting around 65 million of people worldwide. However, paucity of data is published on associated parental risk factors among epileptic patients in developing countries.

Objectives: To determine the association between epilepsy and parental risk factors among the epileptic patients.

Methods: This was a case control study. Two hundred diagnosed epileptic patients [male (52%), age 12-45 years] were recruited as the case group from the neurology clinic at Teaching Hospital Anuradhapura, Sri Lanka. Patients with cerebral palsy, mental retardation and psychiatric disorders were excluded. Only the first identified cases in each sibling were included while affected siblings were excluded. Two hundred controls [male (30%), age 12-45 years] were recruited from the Out Patient Department (OPD), excluding those having any neurological disorders. An interviewer administered questionnaire was used to identify associated parental risk factors among epileptic patients.

Results: Parental factors associated with epilepsy were consanguinity [18.8% in epileptics vs 8% in controls, odds ratio (OR) 2.36, 95% confidence interval (CI) 1.25-4.46, p=0.008] and family history (18.3% vs 5.5%, OR 3.5, 95% CI 1.72-7.15, p=0.001). However, maternal age at child birth, parental age gap and mode of delivery were not associated with epilepsy (p<0.05).

Conclusion: Consanguinity and family history are associated parental risk factors for epilepsy.

Keywords: Consanguinity, Epilepsy, Parental risk factors

KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING DIETARY SALT INTAKE AMONG GOVERNMENT SCHOOL TEACHERS IN NUWARAGAMPALATHA EAST EDUCATIONAL DIVISION IN ANURADHAPURA DISTRICT

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Background: Excess dietary salt intake is a main risk for non-communicable diseases. We assessed the knowledge, attitudes and practices on dietary salt intake among school teachers, an educated population.

Objectives: To describe the knowledge, attitude, practice regarding dietary salt intake and to determine the associated factors among government school teachers.

Methods: A cross sectional study was conducted among teachers working in Nuwaragampalatha East education division of Anuradhapura district in September 2020. All teachers in the randomly selected schools (n=12) were invited to participate. A self- administered questionnaire was used.

Results: Of the 371 participants, 309 (83.3%) were females and 96% (n=356) were Sinhalese. At least a bachelor's degree was available for 213 (54.8%). Mean age was 44 years. Though 240 (64.7%) had heard about a recommended maximum dietary salt intake per day, 14 (3.7%) knew the correct recommendation. 316 (85.2%) knew that children should be consuming less salt than adults and 312 (84.1%) knew salt should not be used in infant food. All most all (98.1%, n=364) believed that amount of consumed salt level is associated with their health. 82 (22.1%) did not think salt consumption by children should be restricted. Most popular reasons for this belief were that children are more active than adults (39, 47.5%) and they are in a growing period (36, 43.9%). Though 254 (68.5%) strongly agreed: they try to adhere to a healthy diet, only 198 (53.4%) strongly agreed that they try to reduce salt intake. Salt was added to rice daily by 80 (21.6%). Salted fish is consumed daily or often by 74.9 % (278). Average daily salt consumption was 7.2 g per individual. There was no difference between salt consumption and educational level, gender, age (P>0.05).

Conclusion: Knowledge, attitudes and practices regarding salt intake are suboptimal even among well-educated groups like teachers.

Keywords: Dietary Salt, School teachers, Anuradhapura, Knowledge, Attitude, Practice

PREVALENCE AND ASSOCIATED FACTORS OF ORAL CANDIDIASIS IN PATIENTS ATTENDING THE RESPIRATORY CLINIC, TEACHING HOSPITAL ANURADHAPURA

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Background: Many patients are diagnosed with oral candidiasis annually and it has been increasing among individuals with respiratory diseases in Sri Lanka. Oral candidiasis is the most common fungal infection of the mouth. It is an opportunistic infection, which may develop due to several predisposing factors. However, the risk factors for this condition or etiology of it in Sri Lankan population is lacking in medical literature.

Objectives: The objective of this study was to determine prevalence of oral candidiasis and to describe risk factors and the level of awareness of oral candidiasis among patients in the Respiratory Clinic of Teaching Hospital Anuradhapura (RC-THA).

Methods: A descriptive cross-sectional study was conducted in patients attending the RC-THA in year 2020. An interviewer-based questionnaire was used for data collection and a clinical examination was done to assess the presence of oral thrush. Data were analyzed using SPSS version 23.

Results: A total of 187 patients were analyzed in the study of which 167 were inhaled corticosteroid (ICS) users. Majority (32.83% n=22) was from the 61-70 years age category. Presence of oral thrush did not show a statistically significant association with the use of ICS (Fisher's exact test statistic =0.88117, P>0.05). Only 28.38% of the positive cases were aware that they had oral thrush. 35 % (n=24) had experienced complications of thrush. Loss of taste, burning sensation, pain, difficulty in speaking and mouth odor in 54%,14%,12%,6% and 4% respectively. 97.48% (n=155) of all inhaler users wash mouth with water after use. Out of 21 patients known to have thrush 52.4% didn't seek medical advice.

Conclusion: This study found that oral thrush is a common occurrence among patients attending the respiratory clinic, THA. It is associated with several side effects. Though mouth washing is done by most inhaler users, it seems to not be effective.

Keywords: Oral thrush, Candidiasis, Fluticasone, corticosteroids, *Candida albicans*

**REPRODUCTIVE PREFERENCES AND ATTITUDES OF PARENTS OF CHILDREN
WITH BETA THALASSEMIA MAJOR MANAGED IN A TERTIARY CARE
HOSPITAL IN SRI LANKA**

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Background: Patients with transfusion dependent anaemia incurs significant socioeconomic burden to the families affected as well as the state. Legal and sociological outlook on prenatal diagnosis and termination of pregnancy is complex. The reproductive attitudes and opinions of the affected families remain largely unknown.

Objectives: Assessment of reproductive opinions and attitudes among parents of children diagnosed with beta thalassemia major.

Methods: The study is cross sectional and qualitative, using in-depth interviews with parents having at least one diagnosed thalassemia child registered in the thalassemia unit, Teaching Hospital Anuradhapura.

Results: We conducted 30 interviews among 26 mothers and 4 fathers. Majority of them were Sinhalese by ethnicity and Buddhist by religion. Most (73%) of the participants did not plan to have another pregnancy. Themes emerged from data analysis demonstrated that fear, uncertainty and external influences persuaded them to decide not to have another pregnancy while a few (20%) of the participants were planning for another pregnancy due to the external influences, beliefs and because they felt it will help the child already diagnosed with thalassemia. Almost all (87%) the participants admitted that they would perform amniocentesis of an unexpected pregnancy. Majority (73%) of them had a positive opinion regarding therapeutic termination of pregnancy if it is prenatally diagnosed to be thalassaemic foetus. When the narrations were scrutinized, uncertainty about the treatment options, hardships experienced by the ill child and the parents were the main themes extracted. Few (13%) of the participants did not consider therapeutic termination of pregnancy due to the religious beliefs and emotional ideas.

Conclusion: Majority of the participants did not plan subsequent pregnancies following the diagnosis of a child with thalassaemia. Almost all participants preferred to have amniocentesis in a future pregnancy. Most of them would consider termination of pregnancy if a prenatal diagnosis of thalassemia is made.

Keywords: Amniocentesis, Prenatal diagnosis, Therapeutic termination of pregnancy

BELIEFS AND MYTHS ON PREGNANCY AND CHILDBIRTH AMONG PREGNANT WOMEN IN ANURADHAPURA DISTRICT

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Background: Pregnancy and childbirth carry varying meanings across different societies and cultures and lead to events and traditions. Together with these traditions, certain beliefs and myths on pregnancy and childbirth are created in many cultures. These beliefs and myths can have considerable negative effects on maternal and child health.

Objective: This study aimed to explore beliefs and myths prevail on pregnancy and childbirth among pregnant women in Anuradhapura district.

Methods: The research used qualitative study design and adopted in-depth interviews as the data collection method. Pregnant women who attended to the antenatal clinic of the professorial unit of Anuradhapura teaching hospital were selected as the study population. Convenience sampling method was used to select study participants. In-depth interviews were conducted using an interview guide, tape-recorded and transcribed. Thematic analysis was used to develop sub-themes and themes and findings were presented under those themes.

Results: 27 pregnant mothers participated for this study and range of beliefs and myths were identified together with pregnant women's perception and attitude towards those. Five main themes were identified during the analysis and presented as: (1) beliefs and myths regarding dietary preferences, (2) beliefs and myths regarding physical activities, (3) beliefs and myths regarding gender prediction of the child, (4) mother's perception on beliefs and myths and (5) mother's sources of information

Conclusion: Various beliefs and myths on pregnancy and child birth are still prevailing among pregnant women in this population. Majority believe and follow those beliefs and myths. Some of them seem to have adverse effects on maternal and child health. Therefore, debunking these beliefs and myths and eliminating related practices should be a major concern in the healthcare services.

Keywords: Beliefs and Myths on Pregnancy, Beliefs and Myths on child birth, Qualitative research

PREVALENCE OF MINOR PSYCHIATRIC MORBIDITY AMONG UNDERGRADUATES OF BHIKKHU UNIVERSITY OF SRI LANKA

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Background: Depression and anxiety are common among university students. Although this is a well-studied area, same is not true for certain undergraduate student groups such as Bhikkhu university attendees. Moreover, Bhikkhu university students may be experiencing unique challenges that make them vulnerable to psychological problems.

Objectives: To determine the prevalence of minor psychiatric morbidity and to describe biological, psychological, and social factors that contribute to above in the students of Bhikkhu University at Anuradhapura.

Methods: This is a descriptive cross-sectional study that used non-probability conventional convenience sampling to choose 206 student monks from the Bhikkhu University of Sri Lanka. Validated 12 item General Health Questionnaire (GHQ-12) Sinhala version was used along with another data collection sheet designed to gather sociodemographic and other associated factors of psychological morbidity. Each item of GHQ-12 questionnaire was rated on four-point Likert scale and analyzed with SPSS statistical software.

Results: Out of the 206, 59 (28.6%) showed positive results for minor psychiatric morbidity. Factors that showed a significant association with psychiatric morbidity were “Not practicing meditation regularly” ($p=0.020$, $OR=2.128$, $95\%CI= 1.120-4.042$), “Dissatisfaction with the guidance in monastic life” ($p=0.042$, $OR=2.114$, $95\%CI=1.018-4.393$) and “Dissatisfaction with current economic state” ($p=0.031$, $OR=2.087$, $95\%CI=1.062-4.098$).

Conclusion: Prevalence of minor psychiatric morbidity among student monks in Bhikkhu University of Sri Lanka in Anuradhapura is high. This study may be providing some insights on which areas to address in interventions to improve their mental wellbeing of Bhikkhu undergraduates.

Keywords: Minor psychiatric morbidity, Prevalence, Buddhist monks, Associated factors

BURDEN OF OCCUPATIONAL HEALTH HAZARDS AND OCCUPATIONAL DISEASES AND THEIR EFFECT ON THE QUALITY OF LIFE OF HEALTHCARE WORKERS OF PROFESSORIAL UNIT, TEACHING HOSPITAL ANURADHAPURA

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Background: Healthcare workers (HCWs) are at risk of exposure to a multitude of occupational health hazards (OHHs), including biological, chemical, ergonomic, physical, and psychosocial factors that lead to the development of occupational diseases, which could adversely affect the lives of healthcare workers and the quality of health services they provide.

Objectives: To assess the prevalence and influence of OHHs and occupational diseases on the quality of life of HCWs and the health services they provide in the Professorial Unit, Teaching Hospital Anuradhapura.

Methods: A descriptive cross-sectional study was conducted among doctors, nurses, healthcare attendants, and cleaning staff of the Professorial Unit, Teaching Hospital Anuradhapura. Participants were selected by feasible cluster sampling. A pre-tested, validated, self-administered questionnaire was used as the study tool. Data analysis was done using Microsoft excel 2016 and the beta version of SPSS.

Results: Total of 201 participants including 164 females (81.6%) and 36 males (17.9%). 54.2% (n=109) have experienced at least one OHH during the past 3 months. The common OHHs were needle prick injuries (23.9%, n=48), cuts (14.4%, n=29), work related stress incidents (16.9%, n=34), uncomfortable postures (12.9%, n=26) and radiation accidents (8%, n=16).

36.3% participants (n=73) reported to suffer from occupational diseases. Mental health related conditions, recurrent respiratory tract infections, and ankle oedema were the most prevalent occupational diseases in this population. The perception of the influence of the occupational disease on participants' mental health (p-value = 0.003) and work-life (p-value = 0.00) were statistically significant.

Conclusion: High incidence of OHHs increases the risk of developing occupational diseases which negatively influence the quality of life and performance of HCWs. Therefore, interventions should be implemented by the authorities to mitigate and monitor the OHHs and occupational diseases.

Keywords: Healthcare workers, Occupational diseases, Occupational health hazards

CHALLENGES TO WIVES OF DISABLED MILITARY VETERANS OF SRI LANKA; A QUALITATIVE STUDY

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Background: The civil war lasting for nearly three decades accounted for a significant population of disabled military veterans (DMV) in Sri Lanka. As a consequence of husbands' disability, the well-being of wives was greatly affected. The well-being of DMV was less studied while the well-being of wives of DMV was a neglected area of research.

Objectives: This study explores the social and family challenges perceived by the wives of DMV.

Methods: A qualitative study was conducted using in-depth interviews (thirteen) on wives of disabled soldiers in three divisional secretariat areas in Anuradhapura district. Following data transcription, inductive thematic analysis was performed.

Results: Analysis of data revealed eight different themes. Financial challenges were present due to high expenses on children's education and husbands' disability leading to debit. Marriage and sexual problems rose due to impotency, reduction of husbands' inclination on sexual life due to pain and neurological problems and conflicts due to aggressive behaviours and memory impairments of husbands. Due to the father's injury children had a negative influence on education and their opportunities were restricted. Support of neighbours and relatives was inadequate and social participation was limited. The impact on mental health was high due to less social network, anxiety and fear on the stability of the family and lack of time to engage in religious activities. Some families developed coping through social relationships, caregiving on children and family bonds. In the midst of many problems' expression of love and affection towards husband and children was admirable. They were proud of their husbands' dedication on country and had no regret on marrying them.

Conclusion: Health and wellbeing of wives and children of disabled soldiers are threatened by various socio-demographic factors that may limit their life expectations and self-consolation.

Keywords: Disable, Military Veterans, Wives

COMPARATIVE ANALYSIS OF PREVALENCE AND ASSOCIATED FACTORS OF ANEMIA BETWEEN TEENAGE AND ADULT PREGNANT MOTHERS IN ANURADHAPURA DISTRICT; A CROSS-SECTIONAL STUDY

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Background: Anemia is a condition where the erythrocyte count or the haemoglobin concentration within them are lower than normal. Anemia in pregnancy is one of the most common preventable causes of maternal morbidity and poor postnatal outcome.

Objectives: To determine the prevalence and associated factors of anemia between teenage and adult pregnant mothers in Anuradhapura district.

Methods: A field based cross – sectional study was conducted on March 2020 in two MOH areas of Anuradhapura district. The study population included all the pregnant women aged 14 and above whose gestational age was 12 weeks and above. An interviewer administered questionnaire was introduced to assess the associated factors of anemia.

Results: Of the 125 pregnant mothers, 40 (32%) were found to be anaemic (Hb <11.0 g/dl) at the time of their booking visit (mean Hb: 11.37 +/- 1.2 g/dl, range 8.10–15.4 g/dl). Majority had mild anemia (60%, Hb 10.9-10 g/dl). The mean haemoglobin level didn't differ significantly between adults and teenagers. The mean age of the teenagers (T) was 18.9 +/- 0.9 years (minimum 16.8 years) and of the adults (A) 29.5 +/- 4.9 years (maximum 40.64 years). In adults heavy menstrual bleeding was a risk factor for anemia (OR = 1.53, 95% CI: 1.32-1.76), but not in teenagers. No significant association was observed with socio-economic and demographic (p>0.05), maternal nutritional (p>0.05) and obstetric variables (p> 0.05).

Conclusion: Though the prevalence of anemia is high in the study population, the assessed socioeconomic and demographic and maternal nutritional factors alone couldn't explain our results. Therefore, not only the problem of iron deficiency, but also other possible etiologies should be further investigated to implement strategies to lower the anemia prevalence among pregnant mothers.

Keywords: Anaemia, Anuradhapura, Haemoglobin, Pregnancy

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