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Editor in Chief- Dr. E. A. K, K, Edirisinghe

Managing Editor- Dr. Dinusha Kanatiwela Niriella



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From the Managing Editor

It is indeed with great pleasure that I write this message on the occasion of Bio-Inquirer 10 – Annual Academic Sessions, International Institute of Health Sciences, 2016. This year, IIHS together with health professionals organize this event based on the *Sustainable Development Goals of the United Nations* on the 19th of November 2016. This year, the forum facilitate abstracts categorized under several themes *viz.* Nursing, Medical Administration and Policies, Gender equality, Public Health, Biomedical Sciences and Humanitarian Issues and Health. Over 100 researches published in this conference proceedings will be presented on this day. We welcome all the conference delegates to Bio-Inquirer- 10 and hope this will encourage the interaction among intellectuals from different disciplines of health, which will lead to multidisciplinary research.

In 2015, the UN implemented 17 Sustainable Development Goals to promote health and wellbeing to the world. In order to promote wellbeing, combating poverty in all its forms is essential. It is extremely vital to incorporate multi-disciplines and drive forward with a collective force to reach the goals. The targets of each goal underline the need to formulate interventions to endorse inclusivity, peace, wellbeing, security and prosperity. Though the political arena at times may not be conducive to executing appropriate systems, it is vital for institutions, public and private to unite together to formulate strategies to achieve the desired objectives.

IIHS is the first institution in Sri Lanka to implement projects targeting all 17 goals. These IIHS projects are themed around empowerment prosperity, eradicating poverty, reducing inequality and promoting peace. Whilst the projects involve numerous stakeholders, it is the vision of IIHS to invest in not only the national but also the global community to promote well-being across the spectrum.

Finally, I wish presenters all success and an inspiring conference for all the participants!

Managing Editor

BioInquirer Journal

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DR. SARATH SAMARAGE

Promoting wellbeing through Sustainable Development Goals

The Sustainable Development Goals (SDGs), officially known as Transforming our world: the 2030 Agenda for Sustainable Development is a set of seventeen aspirational "Global Goals" with 169 targets between them. The SDGs were adopted in September 2015, spearheaded by the United Nations, through a deliberative process involving its 193 Member States, as well as global civil society. Building on the Millennium Development Goals (MDGs), the SDG agenda demonstrates unprecedented scope and ambition.

Health is centrally placed in the 2030 Agenda. The health goal (SDG3) is comprehensive and aims to ensure healthy lives and promote well-being for all at all ages, profiles health as a desirable outcome. Importantly, however, health is also presented as an input to other goals, and a reliable measure of how well sustainable development is progressing in general.

SDG 3 includes 13 targets covering all major health priorities, grouped around the unfinished MDG agenda; new health priorities including NCDs, injuries and environmental issues, and means of implementation targets.

Countries are at different stages of progress towards Universal Health Coverage, and attention is needed both on access to care and financial protection. There is a need to go beyond average estimates for health-care coverage: Given the SDG commitment to 'leave no-one behind', there remains much to do to address inequities and exclusion.

PLENARY I- OP01

MR. W.A. KEERTHIRATHNA-

PLENARY I - Core Competencies in Nursing

Developing and evaluating competence are high in current nursing agenda. National Nursing organizations (NNAS), National Nursing Boards (NNBs) and National Nursing Councils (NNCs) are looking forward in developing competencies within their cultural context and preparing tools to evaluate those competencies in professional practice, education, and management. The role of the nurse is evolving as the mode of delivery of health care services has undergone major changes both locally and internationally in the past decades. Then we are developing a health care system that provides lifelong holistic care, promotes health, enhances the quality of life and enables human development. The availability of qualified and competent health care professionals is the key to the delivery of quality health care services.

Registered nurses (RNs) utilize evidence-based nursing knowledge and professional nursing judgment to assess health needs, provide nursing care, educate clients and support individuals to manage their health holistically. They practice in collaboration with other healthcare professionals. They are accountable for their scope of practice including the supervision and delegation of nursing activities to the enrolled nurses and nursing assistants. RNs may practice in a variety of clinical contexts depending on their education preparation and practice experience (Singapore Nursing Board).

Nurses contribute in development of health care system locally and globally by assuming deferent roles. They require various competencies that suit to their widen role. Basically nurse requires core competencies to enter the profession and perform her role efficiently and effectively. The registered nurse is individually responsible and accountable for maintaining professional competence (ANA 2010).

An individual who demonstrates competencies performing at an expected level. The Institute of Medicine (IOM, 2003), defined professional competence as “the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individuals and community being served.” A competency is an expected level of performance that integrates knowledge, skills, abilities, and judgment. The integration of knowledge, skills, abilities, and judgment occurs in formal, informal, and reflective learning experiences. Knowledge encompasses thinking, understanding of theories, professional standards of practice, and insights gained from context, practical experiences, personal capabilities,

and leadership performance. Skills include communication, interpersonal, and problem-solving skills. Ability is the capacity to act effectively. It requires listening, integrity, self-awareness, emotional intelligence, and openness to feedback. Judgment includes critical thinking, problem solving, ethical reasoning, and decision-making. Inter-professional refers to the shared relationship among individuals, groups, and organizations from different disciplines. Thus, apart from the roles of a caregiver, the nurse needs to develop competencies to take up the roles of a health promoter, educator, counselor, care coordinator, case manager, researcher as well as that of a client advocate to provide comprehensive holistic care for their clients. Hence, education programs for preparing nurses must ensure that the students acquired the essential competencies that enable them to fulfill these roles competently and ethically

OP02

Compassion Fatigue associated when encountering deaths in Clinical Settings among Undergraduate Nursing students in Sri Lanka

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Introduction: Compassion fatigue is a significant problem affecting both job satisfaction and physical and mental health of nurses which requires an early identification. Since it can be easily encountered with deaths of clients in clinical settings, student nurses should be well aware of its signs in order recognize and seek further assistance.

Objectives: To assess the presence and perception of compassion fatigue among undergraduate nursing students and identification of risk factors leading to compassion fatigue.

Method: A quantitative study was conducted among 500 third year nursing students selected using convenient sampling from five nursing training schools in Sri Lanka.

Results: overall 94% of females and 6% of males participated to the study. 41% responded that being a nurse is their ambition while 22% choose nursing under the influence of their parents. However only 53% is happy regarding their choice while 25% regret and 20% wants to quit. 61% of the students confirmed to get angrier with the clients while working. 79% of the students experience sleeping problems, while 63% stated to have poor concentration while working. Comparing 1st and 3rd year experience, there is a significant decline of anxiety and emotional attachment with dying clients in the hospital settings.

Conclusion: Even though the majority undertook nursing as their dream career only a small percentage is satisfied regarding their choice. Throughout the three years of practice, students experienced a drastic reduction of both anxiety and empathetic care levels when dealing with death or dying clients.

Key words: Compassion Fatigue, Nursing students, Deaths, Sri Lanka.

OP03

Public Awareness and Practices on Allergic Reactions in Gampaha District

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Introduction: Allergic reactions can present from mild to severe attacks. Awareness and effective pre-hospitalize care would be beneficial for preventing threatening circumstances.

Objectives: To determine the knowledge of allergic reactions and its practices among public.

Method: A descriptive cross-sectional quantitative study among 150 people selected using convenient sampling method by administering an interviewer-administered questionnaire during September 2016.

Results: 56 % declared allergies can be severe. 80 % stated mild allergies can develop into an anaphylaxis. 46 %, 34 %, 53 % and 62 % stated, patients with asthma, eczema, cancer and kids are more vulnerable for an allergy respectively. 93.9 % said there is a risk of recurrence of allergic reactions. 72.6 % had an experience of an allergy from a relative or by themselves, particularly from food, drugs, dust and sting bites. More than 80 % were known rash and itching are signs of allergy. Less than 40 % were not aware gastro intestinal symptoms and circulatory compromising symptoms are signs of an allergy. 22.6 % stated hospitalization is compulsory for an anaphylaxis. Chlorphenaramine knew by 64 %, 11.3 % knew adrenalin pen, Loratidine by 8 % and prednisolone about 7 % as medicines. 4 % identified raising leg as a first aid. In anaphylaxis, 62 % would hospitalize patient immediately, 11.3 % would assess breathing, and 16 % would assess pulsation and 14 % would administer piriton. 57 % were informed about allergies by doctors and 16 % by nurses. Only 12 said allergic patients should have an adrenalin pen and 24 % said patients should undergo an allergy test.

Conclusion: Lack of knowledge and practices for allergic reactions were the main issues identified.

Keywords: Allergic Reactions, Public awareness, Practices

OP04

Survival of Breast Cancer Patients Treated at Teaching Hospital Karapitiya, Galle from 2004 to 2008

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Introduction: Breast cancer is the commonest cancer in women worldwide and in Sri Lanka. Early detection and improvements in therapy will help to improve survival of breast cancer patients. Data on survival of patients treated for breast cancer are limited in Sri Lanka.

Objective: To determine the survivorship of breast cancer patients treated at Teaching Hospital, Karapitiya, Galle from 2004 to 2008

Methods: A retrospective study was done among 590 female breast cancer patients who were registered at the oncology clinic of Teaching Hospital, Karapitiya, Galle from 2004 to 2008 and followed up till 31st December 2012. Patient details were extracted from oncology clinic records. The patients who have stopped clinic visits were contacted via telephone or a letter to determine their current status. Survival analysis was done by Kaplan Meier curves and Cox's proportional hazards model.

Results: The mean survival time was 56.3 months (SD=31.67) and the median survival time was 62 months. The commonest age group presenting with breast cancer was between 45-54 years. Tumour status, nodal status, presence of metastases, Nottingham grade and status of treatment were significant ($P<0.001$) independent predictors of survival. Nodal status, presence of metastases, Nottingham grade and treatment status were significant predictors of survival after controlling for other variables.

Conclusion: Nodal status, onset of metastases, Nottingham grade and treatment status were significant predictors of survival in breast cancer patients.

Key Words: Survival, Breast Cancer, Sri Lanka

PLENARY II-OP05

MR.UPENDRA RANDENIYA

PLENARY II - Evolution of Healthcare Facilities and the Healthcare System of Sri Lanka

Earliest records of dedicated healthcare facilities in the world is situated in Mihintale, Sri Lanka where archaeological evidence of medical treatment facilities for patients were found. Based on Indian Ayurvedic practice and indigenous treatment methods such as “oral administration of drugs, external applications, inhalations, fermentation, suction of poison, bandaging, steam & hot water therapy, immersion therapy, surgery, and rituals for curing diseases were also performed. Substantial archaeological evidence pertaining to healing places “hospitals”, healing gardens and ponds is available to support this. They were based on a holistic approach to healing supported by Buddhist principles of healing of the mind, body and the spirit.

Today, the indigenous healing system exists known as “eastern medicine”, popularly known as alternative medicine to the “western medicine”. Both systems co-exist supported by the public healthcare system based on the British model of the National Healthcare System.

The current trend in the global business of healthcare has reached the market place in Sri Lanka, with the liberalization of the economy since 1976. The competition to promote healthcare through healthcare tourism, public and private partnership in healthcare providers has given rise to new typologies in the market place, opening up opportunities for investors in the healthcare sector. As a result there is a fusion between the traditional typology of holistic healthcare systems and the western medicine- a fusion between east and west complimenting the design of hospitals as one typology.

It is argued here, creating a new hybrid of healthcare centres which is a combination of a hospital and a wellness centre could become the new “Civic Centre” of the future city.

Our exposure to such market forces in the last 5 years as architects of hospitals and Ayurvedic resort hotels will be illustrated in this presentation.

OP06

Effectiveness of Vertical Transportation in Multispecialty Hospitals in Sri Lanka

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Introduction: Most private hospitals in Sri Lanka are built vertically due to less land space available, however building vertically, would affect quality patient care negatively, where any person would expect value for the money being spent. Vertical Transportation, in other words, is the use of elevators/lifts to reach a destination of curative/investigative/rehabilitative care while being admitted in a hospital.

Objective: To assess the distance, time and speed of which a patient is transported from the ward to each unit – investigative/ curative/ rehabilitative, *via* the use of an elevator and to compare the time between vertical and horizontal transportation.

Method: A descriptive study was done where a process analysis and transportation parameter data was collected from the private multispecialty hospitals in Colombo District, where they were all built vertically high.

Results: It was quite evident that the lift waiting times is the major issue. An analysis was done to show the time and distance advantage of a patient if one floor was reduced to increase the building horizontally, thereby decreasing the distance walked and the time taken to reach the required destination.

Conclusion: In the future it would be of great value to consider the time and distance wasted by a patient when travelling vertically than horizontally, where a patient would rather attend a hospital which is more convenient and has more quality of care than other hospitals and this study has proven that building horizontally would indeed affect the quality of care of a patient in a positive manner.

OP07

Identifying Treatment Gaps in Sri Lanka for Bone Cancer with the United States

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Introduction: Bone cancer is of rare incidence thus it affects the teens and the young adults according to statistics and data provided. The purpose of this research study was to explore the gaps in bone cancer treatment in Sri Lanka compared to the United States, and to identify the existence of such gap in both government private hospitals in Sri Lanka and to identify on how to minimize the effects.

Methods: Data was collected by visiting cancer care hospitals and other privatized institutions in Sri Lanka along with the touch of the native ayurvedic treatment facilities and plans in the country. Apart from visiting such institutions and other professionals, an input from Oncologists were also made.

Results: The results indicated that there is a major gap in treating cancer including bone cancer patients in Sri Lanka compared to the highest rank country in the world for best prognosis and cancer care, the United States.

Conclusions: This research study will focus on the treatment gaps in bone cancer in Sri Lanka compared to the United States. The study designed as descriptive, cross-sectional study with two phases; quantitative phase and final validation by a qualitative phase. Through the findings it was indicated that the mid income countries such as Sri Lanka is unable to provide new insights into prioritizing research gaps and a diversity of approaches to the proposed research studies to address these gaps.

Keywords: Treatment Gaps, Bone Cancer

OP08

Effects of Medical Insurance for the Health and Health Seeking Behaviour of Urban Early and Middle aged Adults in Sri Lanka

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Introduction: Different stakeholders offer different Health Insurance packages in Sri Lanka, yet proper assessment on benefits and pattern of utilizing them has not been done. If having insurance could positively affect the health seeking behavior of an individual, we should look into the prospects of arranging affordable insurance schemas to the general population.

Objective: To assess dependent factors for health and health seeking behavior of the urban early and middle aged adults. Also the awareness and ability to own private insurance and factors which affect the ownership of medical insurance were also assessed.

Method: A self-administered questionnaire was used to gather data from 379 individuals and quantitatively assessed. The variables personal attributes, family attributes, employment status, income/ability to pay, experience regarding the hospitals (cost/distance/satisfaction) and health condition and habits that may have adverse effects on health were assessed on the dependent variables 'health seeking behavior' and 'insurance status'.

Results: Around 1/3 of the study population did not have any kind of medical insurance. Testing for the hypothesis, the results showed that all the above mentioned variables always had a significant association ($p= 0.000$) with 'health seeking behavior' and 'insurance status' except one or two occasional sub variables. Moreover the health seeking behavior directly associated with the insurance status, i.e. having or not having a medical insurance package ($p= 0.000$).

Conclusion: Investing in private/community based insurance schemes and making them available at an affordable rate may have an impact on the health seeking behavior and ultimately health indicators of the country.

Key Words: Medical Insurance, Private Medical Insurance, Health Seeking Behavior, Ability to own Insurance, Community Based Health Insurance

PLENARY III- OP09

MS. CHARLOTTE BLUNDELL

PLENARY III - The contribution of empowered South Asian women to the Sustainable Development Goals

Women's input and women's leadership are crucial to the achievement of the SDGs. The SDGs are about solving the most complex challenges of this era – climate change, inequality, poverty. We need diverse groups of women and men working decisively to find sustainable solutions. It is the differences in men and women's perspectives and methods of approaching problems that leads to the best outcomes. This is called *cognitive diversity*. So whenever you have an opportunity to lead a group or to be in a group, whether in school, social life or professional life, help to ensure that your team is diverse, that men and women are included, that there are people that have a different view of the world or who take a different approach to solving a problem included, because working together, you will consistently outperform those groups governed by a singular perspective, and who knows, you might even find a solution to solving one of our world's most complex challenges!

OP10

Harassment in Public Transport in Sri Lanka

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Introduction: Harassment in public transport, is one of the major issues in Sri Lanka. However, these acts of harassment is unnoticed, ignored or unreported, it will affect the well-being of the female victims, both physically and psychologically, and likewise it also makes the offender to be more insensitive to violence against females.

Objectives: To find out the quantity, forms and effects of harassment experienced by females between the ages of 15-55 years.

Methods: Descriptive cross sectional study was done on 200 females between the ages of 15-55 years in Sri Lanka using an online data collection form based on a questionnaire.

Results: Out of 200 female respondents majority (80.5%) used buses and 55% used auto rickshaw for travelling. 65% admitted that harassment is done by both individuals and groups. 46.5% travel at least 1 to 2 times by public transport on an average day. 27% have experienced or witnessed harassment more than 5 occasions. 50% participants admitted that harassment matters to them very deeply. 65.5% of have faced harassment. 45% says they were physically harassed, 54% was verbally abused, and 58% were visually abused on public transport. 98% did not know the offender. 44.5% states that they were angry and 25% were scared. 53.5% did not receive help from the bystanders. 47% did not know about the law against harassment in public transport.

Conclusion: The results indicate a high rate of harassment and it has highlighted the fact that there are issues which contribute to women feeling unsafe and limiting their freedom of movement.

Key words: Sexual harassment, female abuse, public transport, Sri Lanka

OP11

Assessment of the Effects of Street Harassment on Female Youth in Maldives- A preliminary study for assessment of effect of street harassment among female youth in Maldives

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Introduction: Street harassment is an invisible problem; often said to be the victim's fault and in Maldives this has become a daily menace which impedes gender equality and must be taken seriously.

Objective: To assess the severity and occurrence of street harassment and psychosocial effects on young women in Maldives

Methods: A descriptive cross sectional study was done on 232 conveniently selected young women in Maldives using an online questionnaire.

Results: Out of a population of 232, 66.4% were from Male. 12.1% were only 13yrs old when they first experienced harassment. 83.6% did not report when they were harassed because 69.4% believe that even the authorities will not be that helpful. Another 53.9% said that no one had helped when they were being harassed & 25.4% had walked away. 62.1% say that they are afraid of going out alone. 54.3% believe that you should help the person being harassed yet 66.8% did not know of the existence of a law against harassment.

Conclusion: It is important to address street harassment in order to make the streets of Maldives safe for their women to walk through.

Key words: female youth, Maldives, Street harassment

OP12

A Study on Woman's role in the Fishing Industry in Southern and Northern Coastal area of Sri Lanka

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Introduction: Fishing industry has been specially designed for men. However, when considered socio-economically, women also play major role in the fishing industry. Unfortunately the role of women in fisheries is under estimated and undervalued.

Objectives: To assess the role of woman in fishing industry and the role of the fisherman's wives for the maintenance of health.

Methods: A descriptive cross sectional study was done along the North and South coastal line of Sri Lanka and a self-administered questionnaire was given to the fisherwoman in order to assess their contribution in fishing industry, and a face to face interview was conducted among 10 fishermen in order to assess their practices and the role of woman in their routine life.

Results: Among the 100 respondents 44% were between the ages 26-35. The most common accidents recorded among the fishermen were the cuts and wounds (16%). 25 % of the fishermen were suffering from long term diseases. Only 12% of the sample population had non-communicable diseases. Majority of the wives contribute the fishermen (90%). 72% of the respondents stated that they play a vital role when considering the income of the family. 55.2% of the respondents stated that they created a friendly environment when their husband was under stress. 47% of the wives stated they give self-prescribed drugs for their husbands when the husband is ill.

Conclusion: It was revealed that the wives of the fishermen play a pivotal role in supporting the income, ensuring the health of fishermen and safeguarding the family.

Keywords: Women's role, Fishing industry, Coastal area

OP13

Awareness on Post Natal exercises among women in Sri Lanka

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Introduction: Anatomical and physiological changes in the female body after a delivery can lead to many significant problems that can persist even throughout the life. Postpartum exercise administered about 24 weeks after the delivery can potentially reduce these conditions. Since these issues have the risk of affecting their daily routine, it is important to understand the level of awareness, beliefs, barriers, and enablers regarding exercises during the postpartum period.

Objectives: To Access the awareness and attitudes about postpartum exercises among women in Sri Lanka.

Methodology: A descriptive cross sectional quantitative study was done with 100 women in Western Province of Sri Lanka. The participants were selected using convenience sampling and data collection was done using an online questionnaire.

Results: Out of 100 samples, most of them were between 30 -35 years. 45% of them had delivered their baby as caesarian delivery while 41% had normal deliveries. Also majority of them were between 3-6 months after delivery. 79% had delivered 1 to 3 live births. Natal history of Diabetes and hyperlipidemia during pregnancy was comparatively high. 62% of them are thinking that they are active though who are not doing exercise and not aware of postnatal exercises are 41% and 48% respectively. 42% of them thought doing exercising is bad for their health. 82% of them were suffering from musculoskeletal pain and 65% isn't taking Physiotherapy treatment mainly due to their busy schedule and lack of knowledge regarding Physiotherapy.

Conclusion: Though the participants are suffering from musculoskeletal pain during postnatal period, majority of them are not much aware about postnatal exercises.

Key words: Awareness, Postnatal exercise

OP14

A study on assessing the Risk characteristics for the Initiation of Smoking

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Introduction: Most smokers initiate the hazardous habit; smoking in their youth due to multiple social and cultural reasons. It is important to identify the characteristics that initiated people to start smoking, thus identifying their tendency to become chronic smoker.

Objectives: To identify the risk characteristics for the initiation of smoking.

Methodology: A descriptive, cross sectional study was conducted on 180 conveniently selected chronic smokers, using a close ended online questionnaire.

Results: Out of a population of 180, 46.5% were aged 16 – 20 years, 56.8% were males and 43.2% were females. Majority were students and had started smoking between the ages 16-20. 50% of the population said that their father smokes and 48.7% said that none of their parents smoke. 68% of the population told they wanted to try and see how smoking felt and on the other hand 18.3% of the population concluded that they smoked due to the influence from friends (91.5%). It was found that most of the participants smoked at a private party (57.5%); 80.5% told that they smoked without alcohol where as the rest smoked with alcohol. It was found that from the time they started smoking 88.9% are still smoking with majority smoking more than 5 cigarettes per week (59.9%) and only 39.9% have concluded of quitting smoking. It was found that 92.9% of the population has regretted their first smoke.

Conclusion- Therefore, it has being identified that the major reason for the initiation of smoking was due to curiosity as opposed to peer pressure. If we are to minimize the initiative streak of smoking, intervention needs to be applied at the school level.

Keywords- Smoking, Initiation, Teenagers, Sociology

OP 15

Practices and Attitudes towards Alcohol Consumption and Driving among Urban Youth

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Introduction: Road traffic accidents related to alcohol has become a main cause for the rapid increase of fatal or serious road traffic accidents in Sri Lanka. In order to organize prevention programs, the drinking and driving practices of the public has to be studied.

Objective: To assess the prevalence of drinking and driving among the urban Sri Lankan adults, the factors and circumstances leading to it and the attitudes towards it.

Method: A descriptive cross sectional study was conducted among 354 conveniently selected urban Sri Lankan Adults. The data collection was done using a self-administered questionnaire.

Results: Most of the participants were males (89%) and were between age 18 to 30 years. 59.1% admitted that they are guilty of drinking and driving at times. 53.4% drank with friends, 25.2% drank more than once a week. 253 of them have not met with any accidents. 232 have never got caught to the police. 182 said they take alternative routes to bypass police checkpoints when driving drunk. Usually after a session of drinking 175 (49.4%) drove their own vehicle back home, 30% used a taxi and the rest used public transport. 147 stated that their driving skills are not affected by alcohol. 141 stated alcohol does not affect their reaction time. 55.6% said they could see clearly even when drunk.

Conclusion: Drinking and driving was highly prevalent among young adults and they continued this practice as they were under the impression that alcohol does not affect their driving

Key words: Drinking and Driving, Alcohol Road traffic accidents, Alcohol Accidents Sri Lanka, Alcohol Risk Behaviors

OP16

Total energy intake and dietary risks associated with the use of alcohol among urban Sri Lankan adults

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Introduction: Evidence suggests that moderate amount of alcohol intake (14 units per week) reduces the risk for type 2 diabetes and heart diseases. But, Sri Lanka being a country with its own food habits and practices, calorie intake associated even with the recommended alcohol amounts, puts the appropriateness of the above recommendations to doubt.

Objectives: To identify the calorie intake for a unit of alcohol and to identify food patterns in related to alcohol consumption.

Method: Descriptive cross sectional quantitative study was done on 300 males and females who are consuming alcohol using convenient sampling method in the Gampaha District, Sri Lanka through a questionnaire.

Results: Among 261 eligible participants, mean age of the participants were 35 and mean BMI was 25.33 (over weight). Considering the mean values; on a drinking day, on average 14 units of alcohol is consumed and over a week at least 28 units are consumed in total. Nearly 234 kcal of food is taken with a unit of alcohol and approximately 27 kcal of chases are added to a single unit of alcohol. Majority of the participants (257) consume hard spirits mostly at al,average of 13 units per day. 36% of the respondents have cigarettes every time they consume alcohol and the mean usage of cigarettes in an average drinking day is 8.

Conclusion: Due to high intake of energy from food and chases when consuming alcohol, the recommended safe units of alcohol consumption given in western context cannot be applied to Sri Lanka.

Key words: Calorie intake, Alcohol consumption, Alcohol and Calories, Alcohol NCD Risks

OP17

Calorie composition in traditional sweets in Sri Lanka

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Introduction: Avurudu sweets encompass the entirety of the Sinhala & Tamil New Year, held annually in Sri Lanka. It is made mainly with sugar & salt & fried in coconut oil. Province-wise, the constituents of sugar & salt added, along with the amount of oil used differs. Even though it has been consumed over years, neither the healthiness nor the calorie content of it has been assessed.

Objectives: To identify the calorie composition in traditional sweets compared to different districts in Sri Lanka and to compare the salt amounts used in preparation on traditional sweets.

Methodology: A descriptive cross sectional study was done by using a self administered questionnaire on conveniently selected 5 individuals selected from each district (Gampaha, Anuradhapura, Galle, Kegalle, Kurunegala and Puttlam) in Sri Lanka.

Results: When comparing the mean calorie levels of 11 food items, the highest mean calorie levels were found in Konda kevu (263.4 kcal) and Aasmi (265.4 kcal). There were significant differences (50kcal) among the calorie values in all food items except in kokis, when comparing them province wise. Highest calorie consumption was recorded in the Western province and lowest in North Central Province. But Southern province recorded the highest calorie levels in milk rice and Helapa significantly. Milk rice and peni walalu had the highest salt contents and highest amounts of salt is used in North Central province.

Conclusion: There are no significant calorie differences. The amount of salt intake of each sweets is almost equal when comparing with each provinces.

Keywords: Sri Lankan sweet meats, Healthiness, Calorie content, Salt content.

OP18

Body dissatisfaction among Advance Level students –Sri Lanka

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Introduction: Body dissatisfaction is defined as a negative subjective evaluation of the weight and shape of one's own body. In the transition from early to mid-adolescence, gender differences in pubertal development become significant.

Objectives: To evaluate the presence of body dissatisfaction among advanced level students and its consequences.

Methodology: It's a Descriptive cross sectional quantitative study analysis. It was done among advance level students in Sri Lanka using convenient sampling from males and females of over 15- 20 years using online and self administered data collection .Study population was around 154 students.

Results: Out of 154 respondents 108 were females and most of them from age 19-20. The average BMI was 24.04. 64.2% (83) stated that they avoided wearing specific cloths to concerns to their body image and 43.4% was on diets. 34.6% (55) lost concentration thinking about the body image. 20.8% (33) did not attend to social occasions because of low self esteem. 50% was afraid becoming fat. 32.7% (52) were self-conscious about shape. 54.1% (86) felt uncomfortable for others comments. 28.9% (46) was mentally abused by others. 30% (46) felt like cutting off their excess flesh. 39.6% (63) was worried because flesh being not firm.

Conclusion: Body dissatisfaction is moderately prevalent among advance level students and major reason is found to be psychological stressors associated with their age. It seemed to significantly affect their studies and social health.

Keywords: Body dissatisfaction, low self esteem, puberty and adolescents, Sri Lanka

OP19

Hearing impairment and risk factors among Urban Youth in Sri Lanka

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Introduction: Hearing impairment is a common health issue among youth. It is the third most common physical condition after arthritis and heart disease. Most of the time hearing loss or difficulties occur due to the technology which is frequently used by youth.

Objectives: To assess the risk of development of hearing impairment among urban youth.

Method: The data were collected by giving out the questionnaires or the link to the survey to the randomly selected people in the selected age group from different regions in Sri Lanka and the hearing impairment was measured by an Android App.

Results: Out of 102 participants, 48% were males and 47.1% were females. Only 3.9% suffered from a congenital ear problems. 22.5% uses their mobile phone at a volume range of 90-100%. 83.3% respondents are using headphones and 40.2% using open headphones. 30.4% listen about 2 hours per day while 8.8% uses it for more than 5 hours. 25.5% of them listen to their music player in a volume range of 75-90%. 40 out 102 people think that they do not have a hearing impairment. 31.4% said that one ear hears better than the other. Out of 102 participants 39.2%, 65.7% and 43.1% have shown high, mid, low frequency hearing levels respectively in the moderate stage.

Conclusion: Although they think they do not have hearing impairments this research shows that their hearing ability is not normal and it can be due to misuse of listening devices and headphones.

Key Words: Hearing test assessments, headphones, listening devices, hearing impairment.

OP20

Knowledge of the usage of DNA evidence among Police Officers in Sri Lanka

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Introduction: The application of DNA profiling or the use of DNA evidence for criminal investigations in the Sri Lankan Justice System has been proved effective and in many instances a valuable tool for criminal investigations.

Objective: To assess the knowledge of police officers on the handling of DNA.

Methods: A descriptive cross-sectional study was done on 219 conveniently selected police officers working in urban police stations, using a self-administered questioner.

Results: The mean age of the participants were 36.4. 81.7% were male. Many had an experience of 5 years (55.3%). 58% worked with crime scenes that involve DNA evidences. 89% learnt about the uses of DNA in a crime scene. 61.6 % said that they haven't had enough understanding of the uses. 92.9% of the participants who had a knowledge on DNA use , knew by cleaning the environment could potentially destroy the evidence. Also 92.3% knew by touching the evidence the potential evidence can be contaminated. 94.5% knew DNA can be found in blood. 81.8% said nails contains DNA evidence & another 72% said urine contains DNA, whilst 61.8% said ear wax contains DNA. When given a sample crime scene of a murder case, the 78.9% participants claimed that they would advise the public on safely handling the crime scene.

Conclusion: Sri Lankan police has a moderate knowledge on DNA usage in a crime scene. Yet some of the participants do not seem to have an in-depth knowledge on what kind of evidence contain DNA.

Key words: DNA profiling

OP21

Assessment of knowledge and practices of Medical Laboratory Technologists regarding universal work precautions in Clinical Laboratories in Colombo and Gampaha Districts

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Introduction: The laboratory environment can be a hazardous place to work in. A vast number of health professionals working in laboratories are exposed to numerous potential hazards. The prevention of occupational hazards in laboratories requires a thorough knowledge of the risks and practical measures to be taken. “Universal work precautions,” are a set of precautions designed to prevent transmission of blood borne infections when providing first aid or health care.

Objective: To assess the level of knowledge and practice of Universal work precautions among medical laboratory technologists in clinical labs in Colombo and Gampaha districts

Methodology: A descriptive cross sectional study was done on medical laboratory technologists in clinical labs in Colombo and Gampaha districts using a Self-administered questionnaire.

Results: Out of 97 participants, 47.4 % of the respondents practiced proper hand washing procedure. 52.7 % of the respondents with a degree level qualification did not practice the proper hand washing techniques. The most common accidents which was reported was splashing of body fluids (56.7 %) and was mostly reported in the biochemistry department (29.09 %). 60.8 % of the respondents knew the prophylaxis measures to be taken in an injury or exposure. 95.87 % MLTs were not aware of the appropriate segregation of waste. 10.3 % use only gloves and lab coats during work hours where as 36.1 % of the respondents felt that the use of masks in the laboratory was not necessary.

Conclusion: It was revealed that the MLTs have the basic knowledge about Universal work precautions but a few failed to put it into practice. Majority had a positive attitude.

Keywords: Medical Laboratory Technicians, Universal work precautions, Knowledge, Attitudes, Practices, Clinical Laboratories.

OP22

Knowledge and Attitude of General Population in Matara district towards Ayurvedic Medicine

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Introduction: Ayurvedic medicine also known as Ayurveda is one of the world's oldest holistic (whole-body) healing systems. The primary focus of Ayurvedic medicine is to promote good health, rather than fight disease. However, treatments may be recommended for specific health problems. According to Ayurvedic theory, everything in the universe living or not is connected. Good health is achieved when your mind, body, and spirit are in harmony with the universe. A disruption of this harmony can lead to poor health and sickness.

Objectives: To access the knowledge and attitude of general population in Matara district towards ayurvedic medicine.

Method: A descriptive cross sectional study was carried out among 202 adults. Data were collected using self-administered questionnaires.

Results: According to the analysis, 72.1% had taken ayurvedic medicines for at least once. 50.7% participants had used ayurvedic medicine as a treatment for common diseases. Majority of the respondents (90%) did not use Ayurvedic treatments for major diseases. One quarter of the participants did not use doctor's prescription. Participants who had low educational levels thought that ayurvedic medicines have side effects on their body. 80% of the participants did not consume ayurvedic medicine along with western medicine. 53.1% respondents considered their carrier as a burden for using ayurvedic medicines. 88.8% participants thought that ayurvedic treatments have ability to cure diseases which are not curable in allopathic medicine. 59.1 % respondents had chosen ayurvedic medicine.

Conclusion: Adult population in Matara district have positive attitudes and fairly good knowledge on ayurvedic medicine.

Key words: Ayurvedic medicine, Adult population, Matara district, Knowledge and attitude.

OP23

Assessment of Self-medication Practices among urban Sri Lankan adults

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Introduction: Modern consumers (patients) want to have an active control of their own health and in fact self-medication can be considered as a practice which empowers the consumers. Self-medication using prescription and Over the Counter (OTC) drugs are governed by numerous factors and it is crucial to evaluate the knowledge, competency and attitude of the public regarding self-medication.

Objective: To assess the self-medication practices among urban Sri Lankan adults and their perception regarding self-medication.

Methods: A descriptive cross sectional study was done on Sri Lankan Urban adults, who are over 20 years of age using convenient sampling using an online data collection form based on a questionnaire.

Results – Among 227 participants, 55% who use self-prescribed drugs have completed education up to advanced level and beyond. 73.8% respondents who use self-prescribed drugs are employed. The most common self-prescribed drug which is purchased is painkillers (80.8%). The most common condition why respondents use self-prescribed drugs is to treat cough and cold (60.3%). Majority of the respondents (68.6%) use the previous prescriptions given by the doctor to obtain information about the self-prescribed drugs. When the respondents were asked to express their opinion about the effectiveness of self-prescribed drugs on a scale of 1 to 5, the majority (33.5%) stated that self-prescribed drugs are very effective by marking 5.

Conclusion- It was revealed that the educational level and the status of employment affect the self-prescribed drug consumption and the majority of respondents who use self-prescribed drugs recognize that the self-prescribed drugs are effective.

Key words – Self-Medication, Self-prescribed drugs, Prescription drugs, Over the Counter drugs

OP24

Establishing a Small Scale Bio-gas Plant and evaluating its Effectiveness with different types of Raw Material

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Introduction: Biogas consists of different mixtures of gases produced by the breakdown of organic matter in the absence of oxygen. Biogas is a renewable energy source which can be produced cheaply and it also helps to manage the house hold waste. Therefore, the production of biogas using IIHS cafeteria waste will be a solution for the waste management, and produced gas can be used for the daily usage of the cafeteria instead of Liquid Petroleum (LP) Gas.

Objective: To establish a small scale bio-gas plant at IIHS premises and to assess its effectiveness with different types of raw materials.

Methodology: 3 small scale biogas plants were made using 5 litre engine oil cans. These cans were filled with different weight combinations of waste from cafeteria with cow dung. The raw material were kept for a week to decompose and then the gas was measured using gas over water collection method.

Results: The highest yield of biogas (692 cm³) was recorded when the combination of 2 kg of canteen waste and 2 kg of cow dung used. Second highest fetch of biogas (498 cm³) was recorded when the combination of 3 kilogram canteen waste and 1 kilogram cow dung was used. The least amount of biogas production was recorded as 251 cm³ when only canteen waste (4 kg) was used.

Conclusion: The presence of cow dung increases the rate biogas production. However, since canteen waste itself has the ability to produce a considerable amount of biogas, there is a possibility to establish a biogas plant at IIHS premises in which canteen waste can be used. This will assist in waste management at IIHS premises and to provide a cheap alternative to the expensive LP gas used in the canteen.

Key words: Effectiveness, Biogas plant, different raw material

OP25

Assessing the awareness of Sri Lankan adults on Pre-preparation Requirements for Clinical Laboratory Tests

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Introduction: Clinical laboratory tests play a vital role in diagnosing and monitoring a particular disease. These test required special preparation and the test results may differ if proper pre-preparation is not followed.

Objectives: To assess the awareness of Sri Lankan adults on pre-preparation requirements for clinical laboratory Tests

Methodology: A descriptive study was done by conveniently selected 200 adult participants from suburban areas in Sri Lanka by using a self – administered questionnaire.

Results: 32.1% of the participants were diabetic patients and among them 16.2% did not know how many hours they should fast for the Fasting Blood Sugar (FBS) test. 78.2 % respondents were not aware that they could drink water while preparing for (FBS) test. Out of the participants who are non-diabetic 53.2% lacked knowledge on the correct fasting time period for a FBS test. 36.7 % of participants did not know that changing their normal dietary pattern would affect the result. 58.4% of participants did not know fasting is required before a liver or kidney function test. 27.2% of participants had high blood pressure and among them 12.2% were not aware of the fasting time period for lipid profile test. 72.4% of the participants suggested talking with a doctor is the best way to get information about a lab test.

Conclusion: It is evident that the knowledge about common biochemistry tests are low among the suburban adults.

Key words: Pre- preparation requirements, clinical laboratory tests

OP26

Assessing the usability of Stroke Riskometer™ to evaluate stroke risk among urban Sri Lankan Adults

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Introduction: Stroke is the third leading cause of death in Sri Lanka. Assessing risk for stroke is important for prevention. The Stroke Riskometer™ mobile app is accredited by the world Stroke organization. If found culturally appropriate, it would be a very useful tool for local screening programs.

Objective: To assess the usability of the Stroke Riskometer™ to describe risk of stroke among urban Sri Lankan adults and to describe risk factors for stroke among them.

Methods: A descriptive study was done on 683 conveniently selected individuals from Colombo Sri Lanka using the Stroke Riskometer™ and an interviewer administered questionnaire as an adjunct. A qualitative input was taken both from the app users on its usability.

Results: Out of 683 participants 45.4% under the age of 35. Overall mean risk of getting a stroke in the next 5 years was 3.63% and in 10 years was 7.73%. 51.7% of the males are in the high risk category (working definition: over 5% risk for the next 5 years) for developing a stroke. In the higher risk category 44.3% consume alcohol and 48.35% had diabetes, 55% had excessive stress and 75.8% didn't exercise. Both the research enumerators and the subjects stated that the Stroke Riskometer™ is a highly user friendly app.

Conclusions: The risk factors for strokes are moderately high among the urban adults. The risk distributions tallied with the Stroke Riskometer™ findings. The usability of the Stroke Riskometer™ is high in assessing their risk.

Key words: Stroke Riskometer App, Stroke Risk, Mobile app for Stroke Risk

OP27

Public awareness and attitude towards Dementia in Colombo district

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Introduction: Dementia is one of the most distressing and burdensome health problem with ageing. In 2015, 46.8 million people were living with dementia all over the world and 58 % of people are living with dementia in developing countries. There are over 9.9 million new cases of dementia each year worldwide, implying one new case every 3.2 seconds. Therefore assessing the level of public awareness of dementia is extremely important, particularly in developing countries.

Objective: To assess the knowledge of and attitude towards dementia among Colombo district individuals and the level of understanding of each individual about dementia.

Methods: A descriptive cross sectional study was conducted on 144 conveniently selected Colombo district adult males and females between 20 to 50 years, using an online data collection instrument.

Results: A majority (55.6 %), were from age 20-30. Out of 144 respondents, 38.2 % said dementia is a disease of the brain and 47.2 % said dementia is like any other disease. Furthermore 24.3 % said dementia is a disease of emotions. 66.7 % said that from age 51 and above have high chance of getting dementia. 29.2 % said dementia can be cured. Moreover 17.4 % stated that life is hopeless after dementia while 19.4 % stated dementia is burden to the family. 43.8 % said that they have noticed elderly person suffering from dementia and among them 18.8 % responded that they rarely get treatments.

Conclusion: The knowledge and attitude towards dementia has to be improved despite of their educational level since dementia is becoming a major concern among elders.

Key Words: Public awareness, Dementia, Public attitude.

OP28

Effectiveness of chest compressions and rescuer's fatigue during cardio pulmonary resuscitation among practicing Nurses in Sri Lanka

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Introduction: Cardiac arrests and providing Basic Life Support is one of the most discussed topic in the recent past. American Heart Association (AHA) emphasize the importance of providing high quality CPR which increase victim's chance of survival. With recent amendments made to the procedure by AHA in 2015 providing CPR became challenging compared to previous guidelines. The study evaluated the ability of nurses to comply with new guidelines and the quality of compressions using "CPR Training Manikin (Model: GD/CPR200S)".

Objectives: To assess effectiveness of chest compressions during different consecutive cycles & the ability of nurses to perform chest compressions as per the AHA 2015 guideline.

Methodology: A quantitative cross sectional structured observational study conducted among 43 practicing nurses.

Results: The study focused on maintenance of recommended compression rate, effectiveness and changes occur in compressions during continuous provision of CPR. The study revealed that only 2% of participants could follow the recommended rate of 100 to 120 compressions per minute throughout 6 CPR cycles. Number of participants who delivered compressions with appropriate depth during 6 consecutive CPR cycles were 9, 7, 5, 7, 12, and 9 %. 5% of participants failed to complete 5th CPR cycle while 9% failed to complete 6th cycle. Number of participants who delivered more than 10 ineffective compressions during each CPR cycle across 6 cycles indicated as 91%

Conclusion: The ability to carry out effective compressions with recommended rate and depth were minimal among participants.

Key words: CPR, Nurses, Rescuer Fatigue, Effectiveness, Chest Compressions,

OP29

Assessing the knowledge, attitude and practices on Cigarette Smoking among the male patients with ST Segment Elevation Myocardial Infarction (STEMI)

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Introduction: Cigarette smoking is the leading cause of death in developing countries. It is also inducing disability and loss of productivity. These are the most frequent severe result of the disease. However assessing the patients' knowledge, attitudes and practices regarding cigarette smoking is important for the maintenance of a healthy life style.

Objective: To assess the Post ST Segment Elevation Myocardial Infarction patients' level of knowledge, attitudes and practices regarding cigarette smoking.

Methods: A descriptive cross sectional study was carried out among 130 post STEMI patients who were admitted in a Leading Hospital in Colombo - Sri Lanka. Data collection tool was a Self-administered questionnaire.

Results: A total number of 120 participants completed the questionnaire. Participants' knowledge regarding nicotine (28%) and regarding community services (43%) were in poor level. However, majority of the participants knowledge regarding relevant disease was in a satisfied score (92%). 79% of the participants tried to quit smoking cigarettes. 94% of the respondents stated that a counseling program was a current necessity for them. Their practices regarding cigarettes were not satisfied. 73% of the participants stated that they never thought of quitting.

Conclusion: There is need to improve post MI patients' knowledge, attitudes and practice level regarding cigarette smoking.

Key words: ST Segment Elevation MI, Cigarettes smoke, Male patients

OP30

Investigation on Awareness on Rabies among Health Science Students and other Students in University of Peradeniya

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Introduction: Rabies is a fatal zoonotic disease, which is prevalence in the world. More than 90 % of rabies deaths are caused by domestic dogs. Rabies fully preventable, through vaccination of animal reservoirs and post-exposure prophylaxis (PEP) of people exposed to bites.

Objective: To identify the awareness of rabies among health science students and other students in University of Peradeniya.

Methods: Descriptive, cross sectional, quantitative study was done on 365 University students for examine the differences in knowledge, attitude and practice regarding the rabies.

Results: The results confirmed that students, who were considered as health science students, showed that they were more aware of rabies disease than the non health science students. There was a significant association between academic course (health science and non health science) and the knowledge of rabies ($P=0.001$, $\chi^2=46.07$). There was no any significant association between gender and knowledge of rabies ($P=0.584$, $\chi^2=2.29$), academic year and knowledge of rabies ($P=0.745$, $\chi^2=0.106$) and pet ownership and knowledge of rabies ($P=0.100$, $\chi^2=2.699$). However, it is unknown if other variables like differences in socio-economic situation or general interest in animals have affected the results.

Conclusion: Most respondents showed low levels of knowledge about many aspects of rabies. At the same time non health science students had poor knowledge regarding the important aspects of rabies than the health students.

Keyword: Rabies awareness, University students, PEP.

OP31

A Study on Knowledge, Attitude and Practice of Blood Donation among Undergraduate Students in the University of Peradeniya

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Introduction: Blood donation is a self-directed volunteer service. Younger people are the future source of blood and they are aware and have knowledge about donation but there is lack of regular donation practice among youngster. Regular donors in younger age group are less so it is very important to sensitize these people for regular donation.

Objective: To determine the Knowledge, Attitude and Practice (KAP) of blood donation among undergraduate students in University of Peradeniya. And To compare the knowledge of the blood donation between health related and non-health related categories.

Method: A survey based, descriptive cross sectional study was conducted among 375 undergraduate students in University of Peradeniya which was selected using stratified random sampling. Data collection tool was a Self-administered questionnaire.

Results: 32.28% of the non-health related students were aware of the appropriate criteria for blood donation. Health related students had higher knowledge about the blood donation criteria (84.44%). In health related group 66.6% replied HIV/ AIDS can be transmitted to donor while donating blood and while looking at practice only 15.5% donate blood. Similarly in case of non-health group 78.59% replied HIV/ AIDS can be transmitted to donor while donating blood and 22.1% have donated blood. The reasons for not donating blood are fear of needle, transmission of infections, they think that after donation people becomes weak and their weight decreases.

Conclusion: Though the respondent has good knowledge but there is poor practice and it revealed the fact that adequate knowledge only cannot result in regular blood donation practice. The misconceptions regarding blood donation needs education and motivation through dissemination of information regarding blood donation particularly on electronic media.

Keywords: Blood donation, Knowledge, Attitude and Practice, University student

OP32

Self management Practices among Patient with Hypertension in Selected Rural areas in Rathnapura District, Sri Lanka

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Introduction: Hypertension has become an important health problem. The incidence and prevalence of hypertension continue to increase around the world wide. Self management is a dimension of wellness and it emphasizes the fulfilling basic needs that maintain life in a secure and normal way.

Objective: To identify the level of self - management among patient with hypertension

Methods: A descriptive cross sectional study was conducted among 150 patients with hypertension who were living in selected rural areas in Rathnapura district, Sri Lanka. Data collection method was an interviewer administered questionnaire. Data were analyzed using SPSS programme version 16.0. Statistical significant was set as $P < 0.05$.

Results: The results revealed that overall self management among participants was at a moderate level. For five sub dimensions of self management, the means of self- integration, self regulation, self interaction, and self adherence were also at the moderate level. Middle aged and young adults had significantly higher scores for self management scores than older adults ($F = 4.54, p < 0.05$). Females had higher scores than males ($t = 2.66, p < 0.05$). More educated subjects had higher scores than those who had been low education level ($F = 4.68, p < 0.05$). In addition the economical status of the family was found to be significant ($P = 0.038$). Participants who had adequate monthly income had higher self management scores than those with who had financial problems ($F = 3.56, p < 0.05$).

Conclusion: There is a chance of improving self management practices especially in patient who are elderly, male and economically unstable patients. Educational programmes should be developed to enhance self management among this group of patients.

Keywords: Self management, Hypertension, Patients

OP33

Knowledge, Attitude and Practices regarding Arthritis treatments among patients attend to Teaching Hospital, Karapitiya

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Introduction: Arthritis has become a major disease which damage musculoskeletal system. Most of the patients are over the age of fifty. There are various treatment available for arthritis.

Objectives: The main objective is to assess the patient's knowledge, practices and attitudes regarding arthritis treatments and to compare them with socio-demographic characteristics.

Method: Two hundred patients were selected for the study from both rheumatology clinic and wards of Teaching Hospital Karapitiya. The data was collected using an interviewer administered questionnaire.

Results: Out of the total 200 patients, 12.5% were young while 32% were middle aged and 55.5% were old aged. The majority were Sinhala Buddhists and minority were Muslim Islamic. There were 44% patients who had a low level of knowledge while 54.5% patients had good level of knowledge and only 1.5% patients had advanced level of knowledge. Out of the total 68.5% were not employed. Among the patients 41% had a low income while 57% had an average income and 2% had a high income. Majority of the sample had poor knowledge 81.5%. Knowledge had a significant difference with level of education, level of income, level of employment and marital status. Out of the total 64.5% said that this disease incurable and 62.5% thought the best method of treatment is western medicine. Level of age, nationality and religion had significant difference with attitudes. Among the sample 40% were late to seek medicine for more than 6 months. Practices had significant differences with nationality, religion, level of employment and level of age.

Conclusion: Knowledge of the patients regarding treatments was very poor and had significant influence by the level of education, income, employment and marital status. However, some practices and attitudes were good in a majority of the patients. There were significant difference of attitudes and practices among patients with age, nationality and religion.

Key Words: Knowledge, Attitude, Practices, Arthritis

PLENARY IV-OP34

DR. NIHAL DE SILVA

PLENARY IV - Maternal and Child Health services in the USA

Maternal and Child health services in the USA - with 325 million people and a wide racial mix - is served by various funding sources and organizations and strongly supported by Federal and State law that have evolved since the 1930s. In parallel with clinical advances in medicine, support services to programs such as access to care, immunizations, nutrition, preventive strategies, early childhood education, youth guidance, domestic violence, family planning and contraception, manpower education etc. are managed by local and state agencies who have to come up with matching funds for federal funds received. Considering the “private insurance” nature of most healthcare services in the USA, most of the existing MCH services are geared to the less affluent, the more affluent purchasing their coverage independently, bypassing central and state government services. However, the government programs remain the model that is copied by the private sector. NGOs, service clubs, religion based service organizations and benefactors are active at the local level.

OP35

Assessment of the Public Attitude towards the Importance of Mental Health Care and Mental Health Services provided in Maldives

A preliminary study for assessment of public knowledge and attitude towards the importance of mental health care and the mental health care services provided in Maldives

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Introduction: Mental health is an increasingly relevant issue with mental disorders contributing to a significant disease burden in Maldives. However, with the limitations of the geographical settings and limited mental health care facilities available, it is important to study and understand the awareness and attitude of public towards the importance of mental health care and to the services provided in Maldives.

Objective: To assess the knowledge, awareness and attitude towards importance of mental health care and mental health care services provided in Maldives.

Methods: A descriptive cross sectional study was done on 120 conveniently selected participants between the age group 18 to 40 in Maldivians using an online questionnaire.

Results: Out of 120 participants 47% of the respondents were male and 53% was female. From the respondents, 57.5% believes mental health care is highly important to them. 27.5% is not satisfied with the mental health care services provided and 19.2% believes that there is still room for improvement in the services provided. 50.9% are not aware of the mental health services provided in Maldives and 37.5% strongly disagree that mental illness are treated properly. 62.5% believes that mental health care must be available in all health care centres. 76.3% believes that mental health is a national issue and 83.9% believes that government should fund more for mental health services.

Conclusions: Therefore, since the mental health care and services provided do not live up to the standards of the people of the Maldives, it is imperative that firstly the attitude towards mental health and so the quality of the mental health services be improves, thus contributing to significantly reduce the disease burden.

Key words: public attitude, mental health care, mental health services, Maldives

OP36

Perception and Attitude of Sri Lankan adults on Institutionalized Aged Care

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Introduction: Due to the gradually increasing elderly population in Sri Lanka, the need for aged care services also increases. In addition to the curative and rehabilitation services, these include institutionalized care for the elderly that are not acutely ill. However, due to traditional cultural and social beliefs, institutionalized care, the popularity of it is not well known.

Objectives: To assess the perception and attitude of Sri Lankan adults regarding institutionalized aged care facilities.

Methodology: A quantitative, cross sectional study was conducted among 420 Sri Lankan adults, using a self administered questionnaire.

Results: The survey indicates 61.9% of the participants' parents are independent while 27.8% and 5.9% are semi-dependent and completely dependent respectively. The majority, 64.2% is looked after by themselves or by a family member regardless of their condition while 24.7% live by their own and only 1.4% is looked after by a trained age care personnel. However, only 28 % believed that they are sufficiently skilled to look after their parents. Only 1.9% would place their parents at institutionalized aged care for quality and safe care with advanced skills. The rest, 98.1% said they would not place their parents at aged care facilities as it is culturally and socially unaccepted. 84% deny to be placed at an aged care institute when they are old although 50.5% agreed that institutionalized aged care is suitable for Sri Lanka.

Conclusion: Institutionalized aged care is desired for a better living of the elderly in Sri Lanka. However, its popularity is scarce due to cultural and social reasons.

Key Words: Institutionalized care, Attitudes and perception, Sri- Lanka

OP37

Assessing the External Changes in Fish containing Formalin as a Preservative

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Introduction: Formaldehyde is used as a preservative in fish. Commercial fish consumed by population maybe contaminated with formaldehyde which are used to keep the freshness of the fish and seafood. Identification of external changes in fish when formalin is used as are preservative provides an opportunity to increase public knowledge of formalin contaminated fish and to choose healthy fish without contamination of formalin.

Objectives: To assess the external changes in fish which containing formalin as a preservative.

Methodology: A descriptive study was done on conveniently selected individuals who are selling fish in Sri Lanka using an interview guide line.

Results: According to data collected from fish sellers, when formalin is used as preservative, no flies are observed on the fish. When formalin was added the fish eye color changes to muddy brown and fish look squeaky clean, without the usual fishy odour and fish became very rigid and stiff. In addition, shiny appearance and gills of the fish are lost and the colour is changed from red to white colour. If we keep open gill cover closer to our nose it will give medical fragrance. When formalin is mixed fish becomes dried fish and they are easily broken in to pieces.

Conclusion: The formalin added fish can be identified externally, hence people can avoid formalin added fish.

Key word: Fish, Formalin, Preservative, External Changes.

OP38

Knowledge and awareness on Cervical Cancer preventing Vaccine among women in suburban areas in Sri Lanka

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Introduction: - Cervical cancer is the second most common cancer in the world whilst the incidence of cervical cancer continue to rise in Sri Lanka. It is important to assess the knowledge and the awareness on the cancer and the Human Papilloma Virus (HPV) vaccine.

Objectives: - To assess the knowledge and awareness about the cervical cancers and HPV vaccine.

Methods: - : A descriptive cross sectional study was done on 326 Sri Lankan urban & sub-urban females using convenient sampling who were in the age between 14-39 years using an online questionnaire.

Results: 62.9 % of the participants, were from the age group 21-29. 50.8 % have education up to Advanced Level and, 30.4 % have their education up to undergraduate level. 55 % haven't heard about a vaccine which could prevent cervical cancer. 51.2 % of the participants know that cervical cancers are common in Sri Lanka. 193 (59.2%) did not know that HPV is the most common cause for cervical cancers. When considering occupational level ($p < 0.001$) and education level ($P = 0.001$) it played a key role in determining the awareness of HPV vaccine on women. Respondents from the government sector with a good education had more awareness on the HPV vaccine. 28 % obtained information on HPV vaccine through health care professionals or through internet. Only 4% have been vaccinated and reason for not getting a vaccine is due to lack of knowledge. Only 9.2% knew about the correct dose of the vaccine.

Conclusion: It is evident that the knowledge and awareness is very low in terms of the vaccine.

Keywords: Human Papilloma Virus (HPV), Cervical cancer, HPV vaccine

PLENARY V

DR. E.A.K.KITHSIRI EDIRISINGHE

PLENARY V - Use of Evidence in Policy making

Global and local systems are organized to manage the basic human needs, such as health, education, food & water and Shelter. The current systems are burdened with resource constrains, global, economic turmoil, political and trade union influence, war and migration crisis and disasters. Therefore proper meticulous planning, implementation monitoring and evaluation is essential in order to balance the systems with a view to support the wellbeing of all humans. Strategic management is a comprehensive management process performed by considering the dynamic external environment; internal environment; industry competition, organizing a comprehensive plan to achieve organizational goals & objectives with view to be successful in the competition. The process of organizing a strategic plan includes, Strategy Formulation, implementation, evaluation and change. Strategy implementation is done through organizing systems comprised of guidelines for control and redirection mechanisms. This is done though policies and therefore policy making is mandatory for organizing an effective system to manage organization.

Over the past decades, many reforms in governments have been aimed at increasing efficiency, effectiveness and value for money with very little focus on the actual policy process and the way it affects the ability of policy makers to meet the needs of constituents in an increasingly complex, uncertain and unpredictable world. However, if this core process were to be modernized, it would yield considerable economic and social benefits, including enhanced productivity, openness, transparency and participation, as well as actionable and interoperable policy intelligence. Sustainable Development Goals has been formulated by the Evidence based policy making not only organized effective and efficient policies but also allows the leverage to adopt to the challengers posed by the dynamic environment.

OP40

Comparative study on Cost Analyzing of Interventional Cardio Thoracic services in Sri Lanka- 2016

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Introduction: Sri Lanka provides free universal healthcare. The ageing population and rise in non communicable diseases (NCDs) will increase the burden on the healthcare system. Around 219,000 heart patients are admitted to hospitals yearly. The government spends Rs 3,500 million per year to treat heart patients. The government hospitals had a heart surgery waiting list of over 5,000 patients.

Objectives; To study the Cost of Interventional Cardio Thoracic Services in Sri Lanka, 2016: Unit cost of coronary artery bypass & graft (CABG) and stent and balloon therapy after comparison of government, private and international

Methods: Descriptive, Cross sectional study with an analytical component. **Cost contributors:** Human Resource, Equipment, Space, and Supplies. Unit cost of CABG and stenting and balloon therapy was calculated

Results: Total number of surgeries (CABG) per year was 336 and stent and balloon procedures were 898 in 2015. Units cost for CABG was Rs: 948019.14 and catheterization lab cost per procedure was Rs: 655509.43. Considering Operation theatre cost, Building cost was 6.7% (21,600,000.00). 2.7% of amount was Equipment cost. Cost of Human Resource was 21,060,000.00(6.6%). Supplies cost was 83.8 % (267,150,000.00). Catheterization lab cost contributors: Building cost was 3.7%. Cost equipments were 6.4% (37,601,643.00). It also found Human resource cost which was 2,095,333.00(0.4%) and supplies cost per year was 89.6%. The highest cost contributor was supplies. The cost of government sector was fairly higher than private sector however the comparison of world, it also cheaper.

Conclusion and Recommendation; Supply cost extremely high than expected. Routine cost analysis to be performed in other related cost centers such as ICU HDU and surgical words. Cost benefit analysis and Outcome analysis have to be performed for future benefits.

Key words: Coronary arteries bypass graft, Unit cost, Cost contributors, Catheterization lab, and Cost analysis

OP41

Improvement of Service Delivery and Quality in Government Sector Nurses Training Using Modern Technology

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Introduction: Nursing education is very important among medical education due to its direct transactions with people and health and leans towards quality improvements despite its complex challenges. 98 percent of nurses who are working in the curative health sector are trained from Nurses Training Schools (NTS). Current student staff ratios in NTS reflect the operational challenges faced in program delivery at NTS which is the difficulty to deliver the program effectively and efficiently as per the requirements in line with the new delivery models in global health.

Objective: To assess the operational costs of the current NTS processes; To evaluate the cost of the establishment of an LMS at an NTS; To evaluate the possibilities for improvement with the LMS.

Findings and Discussion: The feasibility study was conducted to evaluate the possibility on implementing modern technology to deliver the program more effectively while addressing the current operational challenges. Both quantitative and qualitative methodology were used to gather the information for this study. By analysing the possibility of implementing the ‘Moodle’ which is the most popular open source in Learner Management Systems (LMS), the basic fundamentals in health education can be addressed.

Conclusions: A feasibility study was conducted to explore the possibility of implementing an LMS into an NTS to deliver the program more effectively and efficiently and to address the challenges in program delivery in nursing education in Sri Lanka.

Key Words: Learner Management System, Nurses Training Education, Cost Effectiveness

OP42

Higher Educational Needs among Student Nurses

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Introduction: Continuing education is a key importance of all Nursing practitioners. By understand importance, needs and hindrance of higher educational needs among student's nurses will help bridge the gap of continuing learning process.

Objective: Asses the level of attitude, motivational needs, common barriers and level of outcome for them to continue higher studies.

Methods: A descriptive Cross-sectional quantitative study done on 168 Nursing Students from nursing teaching schools in Sri Lanka.

Results: 94% of them like to continue further education. 34.5% would like to continue up to bachelors, 31% masters and 33.3% would continue until PhD. 21.4% of sample would only continue till bachelor who has family income less than Rs.50000. 84.5% will continue further education straight after and 14.3% will stay around 1-3 years and main reasons are mainly **time constraints** and **work related issues**. 86.9% willing to do specialized nursing short courses. 67.9% would carry out research and 30.5% nurses who like to do research are who wants to continue education until PhD. The main interest area to be in is clinical nursing (35.7%), Education (24.7%). 36.98% nurses who are willing to do specialization courses are interested in clinical nursing. Personal Growth has become the motivation factor for majority and 47% of the sample is believing, by continuing higher education they would increase Job performance.

Conclusions: It Concludes most of nursing students are willing to continue higher education with specializations and personal growth had become the main motivational factor for that.

Key words: Nursing education, Student Nurses, Continuing Educational Barriers, Motivational factors, higher educational Fields

OP43

Assessing the willingness of urban adults to spend on Alcohol and cigarette consumption in relation to health promotion

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Introduction: Non communicable diseases are common in Sri Lanka. Alcohol abuse and smoking are two leading reasons. Though people spend money for the said bad habits, their practices and spending habits towards healthier options like disease screening and exercises are unknown.

Objectives: To Assess the willingness to spend on Alcohol and cigarette consumption on adults in Colombo district.

Methodology: A descriptive cross sectional study, using a self administrated questionnaire was done on conveniently selected 123 adults in Colombo district Sri Lanka

Results: 70.5% were male and majority was 25 - 30years (52.5%). Nearly 53% had an income more than 50,000. Only 41.3% were married. 36.4% consumed both alcohol and cigarette. 57.3% had spent less than 5,000 per month on alcohol and only 43.7% had spent for cigarette. Out of all, 37% of them tried to control expenditure on alcohol sometimes and 18% tried to control expenditure on cigarettes. 11.3% of the population consumed alcohol but, they did not have an insurance policy. People who consumed any or both did not have a saving / Pension plan for their family's future; the percentage was 17.8% and 15.8% of the same population does not usually exercise neither they like to join a gym. 64% of the population who consume any or both had not done a health checkup for more than one year.

Conclusion: The willingness to spend seemed far greater than the willingness to spend for health screening, insurance or gym exercises.

Key Words: Willingness to pay for alcohol, Willingness to pay for cigarettes, Health screening spending, Health insurance affordability

PLENARY VI-OP44

DR. NISHAN SILVA

PLENARY VI - Creating an Evidence Framework to support Universal Health Coverage

The World Health Organization (WHO) is strongly embarked on ensuring Universal Health Coverage (UHC) to the entire humanity. It means that all people receive the full spectrum of essential, quality health services including health promotion, prevention, treatment, rehabilitation and palliative care they need without suffering financial hardship when paying for them. The WHO highlights lack of access to essential health services, escalation of poverty and financial difficulties because of out-of-pocket expenditure on health services, lack of people-centered and integrated health services, severe global shortage of health care workers and lack of health and vital statistics information as significant issues hindering UHC.

The action plans to counter these challenges needs to operate at state level, as public-private partnerships and even as entirely private sector driven initiatives. The 'Bio Inquirer' academic and CSR category initiative of the International Institute of Health Sciences, has been active in this regard largely as an entirely private sector driven NGO and also via partnerships with the state and other private institutes.

One of the key steps taken by the Bio Inquirer, towards ensuring UHC is to lay a platform to generate evidence to highlight the gaps and lapses in UHC in terms of local and regional settings. These include capacity building for research and evidence based practice, community empowerment, use of innovative ideas to ensure inclusivity and to explore the neglected and marginalized aspects. The generated evidence will be disseminated to be discussed at the policy levels in order to ensure sustainable interventions.

Key Words: Universal Health Coverage, Sri Lanka UHC, WHO UHC

OP45

Family Violence: What are the barriers for women seeking help?

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Introduction: The experience of family violence is pervasive across all cultures in all countries.

Objectives: To understand if there are unique experiences of migrant women and if their cultural background prevents them from seeking assistance for the violence they experience.

Method: The present study examined the help-seeking behaviour of migrant and non-women migrant in Australia by probing: (a) whether or not they sought help when they were subjected to intimate partner violence, and (b) the barriers to seeking assistance. Six hundred and seventy-eight women aged between 18 and 79 years including 172 migrant and 506 non-migrant completed a demographic questionnaire, a Types of Abuse Scale to measure their experience of abuse and a Help-Seeking Behaviour Scale to examine their willingness to seek help and the barriers they face.

Results: The results showed that both groups of women experience a high rate of intimate partner violence and that migrant women are at a significantly higher risk of financial abuse. The findings also demonstrate that migrant women have a considerably higher number of barriers in seeking assistance when abused. It is essential to reduce the barriers so that women who need help can be encouraged to obtain it. It is also necessary for service providers to recognise culturally-specific barriers and provide assistance in a culturally intrinsic manner. When the barriers are removed, there could be a greater reduction in the risk of violence.

Key words: Family violence, women

OP46

Introduction to Smart Phone-based Program to improve Insomnia

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Introduction: Approximately one third of the adult population experience symptoms of insomnia, with 15% reporting daytime consequences, and 6% meeting diagnostic criteria for insomnia disorder. The most empirically based treatment for insomnia is face-to-face cognitive behaviour therapy, however, this may not be feasible for some patients, nor required for individuals with ‘sub-clinical’ insomnia’. Online interventions are a reasonable adjunct to or replacement for some face-to-face psychological therapies, however, there is a lack of research into the use of smart phones in such treatments. Smart phone’s hold great potential in behaviour change intervention given the almost constant accessibility to the user in comparison to traditional computer and internet behavioural treatment programs.

Objectives: The aim of this pilot study is to evaluate the efficacy and utility of a smart-phone based intervention for sub-clinical insomnia.

Method: The intervention consists of 10 video clips targeting moment-based areas of sleep difficulty that can be accessed by users when they are needed. Each clip has three key points presented by trained actors highlighting relevant techniques and advice drawn from the empirical literature in regard to treatment of insomnia. The intervention is unique in that it targets ‘real time’ need for assistance, in a manner akin to a ‘mobile therapist’. Participants in this study are males and females aged 18-60 years. They are assessed at baseline, and 6 weeks following the intervention on The ISI, DBASS, and DASS. The specific intervention, methodology and results of this study are discussed with reference to the utility of this novel intervention in treating subclinical insomnia, in addition to being a potential adjunct to the treatment of clinical insomnia.

Results: Results are discussed with reference to similar interventions currently being evaluated by our group for other disorders such as social anxiety, and a potentially larger scale research project.

Key words: Smart Phone-based Program, Insomnia

OP47

Knowledge and Attitude of Youth on Consanguineous Marriages in Southern Province

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Introduction: Knowledge regarding cognate marriages is inadequate, which is affecting the today's modern world due to lack of education and awareness about the marriage. Rituals of specific community and pseudo beliefs may be the major factors for the cognate marriages which affect genetically thereby promoting genetic disorders.

Objective: To evaluate the level of knowledge and attitude of youth on consanguineous marriages in southern province.

Method- A descriptive cross sectional study was done on conveniently selected 264 younger persons in southern province.

Result: Finding on the study details revealed that 54.4% participants did not consider a marriage to someone of all degrees of relatedness as a consanguineous marriage. 125 out of 160 females and 65 out of 104 males concern marriage to a cousin on the father's side as a consanguineous marriage. Overall, 76.6% knew that consanguinity was associated with a high incidence of congenital malformations, although only half of these (44%) knew what congenital malformations were and which were associated with consanguinity. 125 participants had married sisters. Out of them 9.9% were consanguineous. 65% respondents said that consanguineous marriages were not good.

Conclusion-The overall findings of the study showed that young generation residing in southern province had adequate knowledge and attitude regarding consanguineous marriages.

Key words-Consanguineous marriage, knowledge and attitudes, Southern province, Youth.

OP48

Assessment of Attitudes of Undergraduate students regarding Pseudoscience phenomena

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Introduction: Pseudoscience's is “claims presented so that they appear scientific even though they lack supporting evidence and plausibility” and draws favorable ratings by university students. Beliefs in the paranormal and pseudoscience may indicate a decline in scientific literacy and critical thinking. Prevalence among university students in an Asian traditional context is largely unknown.

Objectives: To assess the knowledge, attitudes and beliefs on pseudoscience among undergraduate students from various academic streams in Sri Lanka

Methodology: A descriptive study was done on 124 conveniently selected undergraduate students in Sri Lanka using an online questionnaire.

Results: From 124 participants, majority (47.6%) of the respondents were following the science stream out of which 20% of them believe that the positions of the star or planets have an influence in peoples life. The mean age of the respondents was 21. 49.2% of the respondents agreed on the fact that they believe in science more than their own faith, out of which 25% belonged to the science stream. 38.7% of the respondents agreed on the fact that personality characters depended on the month and date a person was born. 57.3% believed that sprits can come back to a place or situation, while 40.3% of the respondents agreed that people could mentally communicate with someone dead. About 62.1% of the respondents have allegiance in psychic healing while 39.3% of them believe that forces from planets can intervene in treating a disease.

Conclusion: The undergraduates following science stream have faith in pseudoscience despite its lack of supporting evidence.

Keywords: Undergraduates and Pseudoscience, Attitudes towards Pseudoscience, Belief in Pseudoscience, Paranormal Beliefs

OP49

Assessment of Exercise related characteristics of those who practice walking as an Aerobic Exercise in Sri Lanka

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Introduction: Aerobic activity is a leading type of exercise many people engage in, where brisk walking plays the ace role. Therefore in order to promote aerobic exercises, the Sri Lankan government has established ‘walking paths’. The facility utilization seems high. However the effectiveness of the exercises they do is unknown.

Objectives: To assess types of shoes used for walking, water intake while walking, use of diet plans, skipping meals and relationship of exercises to meals.

Methodology: A descriptive cross sectional study was done on 150 adults from Colombo and Gampaha. The participants were selected using convenience sampling and data collection was done using an interviewer-administered questionnaire and a mobile app to determine the walking speed.

Results: The highest number of participants (34%) presented with diabetes. 37% revealed that walking resolved the condition fairly. 82% walk for fitness. The mean heart rate before and after walking was recorded as 82.26 bpm and 92.71 bpm respectively. The average walking speed of an individual was 1.27 ms⁻¹. 71.3% of the correspondents who did not use a diet plan, didn’t skip their daily meals either, thus maintaining their daily nutrition. 56.7% of the population do wear proper walking shoes. 24% walks 4 to 6 days a week for more than 40 minutes a day. 30.7% of the walkers does not drink water during the entire period of the exercise.

Conclusion: The exercise related practices of brisk walking were satisfactory, thus making the government initiatives successful.

Key words: Aerobic Sri Lanka, Brisk walking Sri Lanka, Brisk walking knowledge

OP49

Assessment of Exercise related characteristics of those who practice walking as an Aerobic Exercise in Sri Lanka

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Conclusion: The exercise related practices of brisk walking were satisfactory, thus making the government initiatives successful.

Key words: Aerobic Sri Lanka, Brisk walking Sri Lanka, Brisk walking knowledge

OP50

Awareness on Physiotherapy among elders in North Western Province of Sri Lanka

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Introduction: Like most countries in the world, the elderly population in Sri Lanka also increases gradually. Among the increasing health needs of the elderly, the disabilities and the need for rehabilitation also increases.

Objectives: To assess the awareness on physiotherapy and the need for physiotherapy among the elderly people in North Western province of Sri Lanka.

Methodology: A descriptive cross sectional study was done on 300 elderly men and women, from North Western Province of Sri Lanka.

Results: Out of 300 elders, 31% of elders were not familiar with the word, 'Physiotherapy'. 33% of them had no idea about what physiotherapist do. However 36% of the elders thought Physiotherapy was practiced by doctors. From the elders who knew about the Physiotherapy, 30% thought that they have to meet a Physiotherapist only when the doctors prescribed. 88% of the elders were interested in knowing more about Physiotherapy. 29% of the elders had back pain while 24% of them were having arthritis. Only 24% of them had sought Physiotherapy as a treatment. 64% of them had improvement after getting Physiotherapy treatments. 47% of elders recommended Ayurveda treatments for their conditions. Due to lack of knowledge about Physiotherapy, 68% of the elders were not taking Physiotherapy treatments for their conditions.

Conclusion: Majority of the elderly people have poor knowledge about Physiotherapy and its uses.

Key words: Elders, Sri Lanka, physiotherapy, Aged Care Sri Lanka

OP51

Musculoskeletal issues among Toddy Tappers in Sri Lanka

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Introduction: The toddy tapper's task is to climb the coconut tree and to obtain the sap from the coconut flower. Sri Lankan toddy climbers use traditional methods of climbing the coconut trees and walking on ropes. These methods put these tappers at a risk of many musculoskeletal conditions.

Objectives: To identify the musculoskeletal issues and the related risk practices, among toddy tappers in Sri Lanka.

Methodology: Qualitative research done by using 4 types of data collections. Participatory observation was done by trained physiotherapy students. Semi structured interviews, a Mobile application was used for gait analysis and also visual ethnography – photographs was used to identify the risk activities from the consented tappers.

Results: Two themes were identified. Disease conditions like scoliosis, shoulder range of movement limitation and high arches with some diseases. The traditional means of the industry could leads to hyper flexion of the hip and the knee, the excessive load on the knee joint when climbing trees whilst carrying heavy equipment, the imbalance of load on the hip/spine and the impact on the foot arches while walking on the ropes. Their attitudes and lack of awareness, made them neglect the risks and possibly lead to complications were based on the traditional beliefs of the community also made them further deny the possible relationship between the diseases and their job activities. However the diseases and disabilities were making them leave or give up the industry.

Conclusion: The traditional methods of toddy tapping increase the risk of musculoskeletal diseases among the toddy tappers in Sri Lanka.

Key words: toddy trappers, musculoskeletal issues toddy trappers of Sri Lanka.

OP52

Dietary Knowledge among Weightlifters in Gampaha District, Sri Lanka

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Introduction: A Weightlifter is the person who work out against the force of the weight. The main purposes of weightlifting is building or adding a good muscle tone to your Body. Nutrition is one of the most important components to build and tone muscles. The main dietary goal for weightlifting is to obtain adequate nutrients to optimize health, fitness and to gain lean muscle mass. Lack of nutrients can cause health issues for weightlifters; thereby it is important to have a good knowledge on diet and its components.

Objectives: Understand the knowledge on important nutrients and the dietary patterns among weightlifters

Methodology: A descriptive cross sectional survey, with 70 active weightlifters in Gampaha District using an interviewer administrative questionnaire.

Results: Among the weightlifters 51% are in the normal BMI and 24% are overweight. 36% of the weightlifters take ketogenic diet while 27% take low-fat diet. 34% of the weightlifters take dietary supplements and 31% of them use supplements without consulting a professional while 29% were advised by personal trainers. 13% of the participants take supplements daily while 14% take supplements weekly. 24% of the participants who take supplements are well-aware on the supplement content. 76% of the participants do not maintain their food records while 57% are never been on a specific diet. 22% of the weightlifters consume the required volume of water.

Conclusion: The knowledge on important nutrients for weightlifters is in a satisfactory level. However the use of supplements and importance of water consumption is far below the satisfactory level.

Keywords: Weightlifters, knowledge, diet, supplement, water consumption

OP53

Musculoskeletal issues among First Nations (Indigenous Vedda Communities) in Sri Lanka

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Introduction: The Vedda community forms less than 0.13 % of the country's population. Traditional activities and methods associated with their life style put them at risk of musculoskeletal pathologies of various types. The risk factors for diseases such as musculoskeletal conditions are important to investigate and identify.

Objectives: To identify the lifestyle risk factors related to musculoskeletal and lifestyle risk factors among the Indigenous Vedda communities of Sri Lanka.

Methodology: Qualitative study is done by using 3 types of data collection methods. Participatory observation was done by trained physiotherapy students, semi structured interviews were conducted and also visual ethnography – photographs were used to identify the risk activities from the consented participants in the village.

Results: Thematic Analysis was performed on collected data. Risk activities related to domestic chores, risk activities due to the factors to do with terrain and activities and risks associated with traditional means of employment are identified. Risk activities related to domestic chores mainly involved activities required sitting below the knee level like cooking, cleaning and sleeping. Factors of the terrain like having to climb almost vertical trees and slopes required subjecting the knee and hip joints to excessive strain. Activities like fetching water from local tanks with mud required walking on uneven terrain. Activities and risks associated with traditional employments were climbing heights to harvest bee honey, navigating the forest to collect material for ornaments, hunting under low thickets and traditional maize cultivation techniques.

Conclusion: Traditional activities and life styles in unsuitable postures and terrains increased the risk of musculoskeletal pains among these indigenous communities.

Key words: First Nations Sri Lanka, First Nations lifestyle, musculoskeletal issues Vedda's of Sri Lanka.

OP54

Awareness of Childhood Obesity among Parents

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Introduction: Childhood obesity has become a significant healthcare concern in the world with rates tripling within the last decade. The increasing prevalence of childhood obesity puts these children at risk for several diseases and other associated health problems.

Objectives: To assess the level of awareness about childhood obesity and their risk factors among parents in the Colombo.

Method: Descriptive cross sectional quantitative study was done by using self-administration questionnaire among 200 parents.

Results: Majority of the participants were between 25-35 years. 86 % of the parents knew their child's weight. 34.5% measure it when they go for vaccine and 16% do not even get it measured. Out of the 86 %, 37.5% do not get it recorded. 65.5% of the parents think that their child's weight is ideal. Only 5.5% thinks that it is significantly high. 80% do not want their children to be obese but out of the rest 20.5 % think that it is healthy when they are obese. Significant amount of them think that child's weight is ideal after comparing (67.5%). 31.5% tend to give vitamins if they are not 'fat enough'. 12% of the kids do not engage in any physical activity and 19.5% of the parents encourage them not to. 87 % were aware the issues of obese and 85 % thinks that they know what obesity is. 92.5% will try to reduce if their child is obese. 51.5% believes that children need to be fat to stay healthy.

Conclusion: The awareness on childhood obesity was low and the social perceptions seemed to promote childhood obesity.

Key Words: Childhood Obesity, Awareness, Infant feeding

OP55

Illicit Drug related Attitude and Practices in Sri Lankan public

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Introduction: Illicit drug use has become a major problem in Sri Lanka. From school children to full grown adults are using illegal drugs, when it is freely available. However the public's attitudes towards illicit drugs and the actual usage patterns are yet largely unknown.

Objective: To assess the use and attitude towards illicit drug usage in the general public.

Methods: A descriptive cross-sectional study was done on 371 conveniently selected participants of the ages 14-39 using a self-administered questionnaire.

Results: Majority of the respondents were of the age 21-29 (64.2%). 64.4% were male respondents. 62.5% of the respondents personally know someone who smoked cannabis. 33.2% have taken marijuana. 29.4% have taken an illicit drug. Out of which 101 participants have taken cannabis, 34 cocaine, 29 amphetamines, 27 hallucinogens and 18 for opioids. There is a significant difference ($P=0.009$) between gender and attitude towards illicit drug usage as female participants had a positive attitude (56.1%) against illicit drug use when compared to males. In terms of a socio demographic point there was a significant difference only between gender and attitude. 68.8% of the participants those who have taken an illicit drug had a negative attitude which promoted illicit drug usage. There was a significant association ($P<0.001$) between attitude and their practices. 77.9% of the respondents believe strict laws could reduce drug related issues.

Conclusion: The use of illicit drugs were common and the attitudes of the public favoured and promoted the use.

Key words: Illicit drugs, Cannabis, Drug usage

OP56

Attitudes and practices of nurses when delivering health care to Commercial Sex Workers (CSW) in the Western Province, Sri Lanka (A Pilot Study)

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Introduction: Holistic care respects human dignity and the relationship between the providers of health care. It is based on respect, relative openness, equality and mutuality. Globally, sex workers do not seek health care due to stigma and discrimination and therefore their occupation at times is not disclosed to health care workers.

Objective: To understand attitudes and perceptions of nurses (in multi-sectors) when attending to the health care needs and delivering holistic health care to CSWs in the Western Province.

Methodology: A qualitative research which consisted of 3 focus group discussions was carried out on a total of 10 nurses from the government and private sector where each group consisted of 3-4 participants with 2 moderators per group. Questions addressed discrimination and stigma in the health care system but case studies were also presented.

Results: Nurses in all sectors stated that discrimination towards CSWs does not occur directly in the health care system. However, in certain instances, CSWs were noted to be treated differently.

Conclusion: Although the discussions were guided by ethical guidelines, in order to obtain un-filtered rich data, certain other factors must be addressed prior to conducting studies on culturally sensitive topics.

Keywords: Commercial Sex Worker, Health Care System, Discrimination and Stigma.

OP57

Injuries among School children aged 12-19 presenting to the Accident Service of the National Hospital of Sri Lanka

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Introduction: Injuries of school children affect their education as well as their future life. To develop effective prevention strategies, it is important to analyze the country-specific incidences and circumstances of injuries.

Objective: To determine the nature of injuries among school children aged 12-19 who are presenting to the Accident Service of the National Hospital of Sri Lanka from 1st March 2013 to 30th June 2013.

Methods: A cross sectional descriptive study was done by using an interviewer administered questionnaire. 405 children were selected consecutively.

Results: 81.5% victims were boys. The highest percentage (19 %) was in the 12 year age group; with increase in age, the number of children admitted with injuries decreased. Majority of the injuries occurred at school (n=148; 36.5 %) followed by injuries at home (n=124; 30.6 %) and road injuries (n=105; 25.9 %). More than one third of injuries in children (n=155; 38.3 %) occurred while engaged in leisure activities. The most common type of injury was unintentional injury (n=280; 69.2 %). Three-wheelers were the commonly used transport method (n=216; 53.3 %). Immobilizing the injured body part was the frequently needed first-aid (n=190; 46.9 %) but most often not received in appropriate manner (n=106; 55.8 %). Fractures (n=180; 44.4%) were common. The mean Length Of hospital Stay (LOS) was 2.8 days (SD 7.68). There was a significant difference of LOS between different categories of injuries (p<0.01).

Conclusions: More boys were admitted with injuries. Most injuries occurred at school while playing. Therefore, implementation of school based preventive strategies will be effective for prevention of injuries among school children.

Key words: Injuries, school children, accidents

OP58

First aid Knowledge among School Students

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Introduction: First aid knowledge is extremely important in terms of emergency situations and School children should know fundamentals of first aid. Even though some schools provide knowledge on CPR and even through other media. At large the knowledge that these students have is yet unknown.

Objective: Is to assess the knowledge of school children who are of the age 15- 20 from Colombo Sri Lanka.

Methods: A descriptive Cross-sectional study done on 66 School Children using an interviewer based questioner

Results: Mean age of the participants were 17.15, 57.6% of the participants were male 42% said that they had some training of first aid. 75.8% of the participants haven't had the experience of transporting an injured person. Only 6.1% knew what to do first when going into aid to an injured person. 16.7% knew about the recovery position. 30.3% of the respondents said that they are confident in checking the pulse by giving a mark 5 in a (scale from 1 to 5). 40.9% of the population is has no training in giving CPR. 57.6% of the study population were not sure if they could give CPR. 60.6% of the study participants knew when to give CPR.

Conclusions: It's evident that knowledge is at a moderate level and the school authorities should provide hands on experience to students and train them not just to know the theory but also to know what to do in an emergency.

Key words: First aid knowledge, School children.

OP59

An Investigation on Work Related Stress among Nursing Tutors of government Nursing School of Sri Lanka

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Introduction: Professional stress is the stress occurs at the work place or during the operational activities. There are 18 government nursing schools in Sri Lanka. Every student nurse should be trained in these schools in a 3 year and they have to followed general diploma in nursing. Academic staffs of these schools have less than 15 tutors. However, there are more than 650 students in each nursing schools. So student teacher ratio is very high.

Objectives: To identify the prevalence of work related stress among the nursing tutors in schools of nursing Sri Lanka.

Methods: A descriptive study was done on 153 government nursing tutors which was selected by the use of simple random sampling from all Government Schools of Nursing Sri Lanka. Data collection tool was a standardized self-administered questionnaire.

Result: Questionnaire response rate was 77%. The findings of the study showed overall work stress level. Less than one fourth (n = 34 or 22.2%) of the nursing tutors experienced “moderate” level of the work stress. About more than one fourth (n = 63 or 41.2%) of the nursing tutors demonstrated “mild” level of stress while nearly more than one fourth (41 or 26.8%) of them showed a “high” level of work stress.

Conclusion: Majority of the nursing tutors have a higher level of work related stress.

Key words: Work stress, Nursing tutors, Nursing schools

OP60

Assessment of Antenatal Mothers' knowledge on Fetal Movement Monitoring in obstetrics unit of Sri Jayawardenepura General Hospital, Sri Lanka, 2014

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Introduction: Assessments of fetal movements are used as a marker of fetal viability and well-being. Women should be aware of the potential concerns associated with the decrease in fetal movement and be enabled to report any concern in a timely fashion. Thus the investigator feels the need to assess the knowledge of the mothers on use of fetal movement monitoring chart.

Objective: To assess mothers' knowledge on fetal movement monitoring.

Methods: Quantitative descriptive cross sectional design study was done on antenatal mothers above 24 weeks of gestation using convenient sampling treated at Sri Jayawardenepura General Hospital, Sri Lanka 2014.

Results: 87.27 % of mothers believed that they should pay their attention to the changes of normal fetal movement pattern and 92.73 % of mothers knew if the baby has not moved ten times within 12 hours you should inform the doctor or the midwifery qualified nurse immediately. 87.27% of the mothers knew that if the baby has not moved ten times within 12 hours when the mother is at home she should come to the hospital immediately. Majority of mothers knew that if baby has not moved for 3 to 4 hours it is a threatening condition. 86.36% mothers knew that fetal movement counting helps to reduce fetal death. Lack of knowledge and busy working schedule are the most common reasons for improper fetal movement monitoring.

Conclusions: These findings indicate majority of mothers were knowledgeable. However, hospital should provide more knowledge to mothers on fetal movement monitoring.

OP61

Assessment of Indoor Air Quality and the Occurrence of Respiratory Diseases among Children

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Introduction: Children, of today, spend a significant amount of their time breathing air inside enclosed spaces in which, due to various sources, there may be contaminants that deteriorate the air quality and in poorly ventilated dwellings, indoor smoke can be 100 times higher than acceptable levels for fine particles. Over half of deaths among children less than 5 years old from Acute Lower Respiratory Infections (ALRI) are due to particulate matter inhaled from indoor air pollution from household solid fuels

Objectives: To assess the quality of indoor air and how it contributes to the occurrence of lower respiratory tract infections among children.

Methodology: A descriptive, cross-sectional study was done 184 conveniently selected individuals using an interviewer administered questionnaire.

Results: Out of a population of 184, 57.6% were aged below 5 years. 77% and 39.4% had experienced a productive/dry cough and nasal congestion atleast once in two months within the past few months. 43.9% of the population regularly had troubled breathing. 37.1% said they frequently used insect repellants and another 77% said that they regularly used incense sticks. 77.4% had asbestos cement sheets as their roofing type and only 16.1% believed that their house was properly ventilated. 62.9% had changed their stoves within the past year; out of which 18.4% said they changed due to smoke production. 44.4% said that their child had a terrible cough when even a slight amount of smoke is produced. 60.4% and 76.4% said that their house is close to the main road and that the child often play with furry toys respectively.

Conclusion: Therefore it can be said that the indoor air quality does contribute to the occurrence of respiratory tract infections.

Keywords: Indoor air quality, Respiratory diseases, childhood diseases

Assessment of Vegetable Consumption pattern in Gampaha district

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Introduction: Increased use of agrochemicals by farmers has been recognized as the main cause for the elevated heavy metal levels in crops in Sri Lanka. It is evident that the presence of heavy metals in food and water especially vegetables, significantly has contributed to the kidney disease of unknown etiology (CKDU) in the north central province of Sri Lanka. Identification of vegetable consumption pattern and identification of vegetable transport channel will be important for future research on heavy metal analysis of vegetables.

Objective: To investigate the vegetable consumption pattern and to identify the sources of vegetables and their transportation channel.

Method: A cross sectional study was done on 341 individuals who were selected from random sampling from five divisions in Gampaha district.

Results: The most common vegetables consumed by the families in descending order of consumption were onions, potato, tomato, beans, green cucumber and carrots. Out of the mostly consumed vegetables, 92.5 % of the respondents consumed green cucumber, out of which 93.9% of them consumed it raw or by making salads. 94.1% of the respondents stated that they consumed carrots, out of which 37.77% said that they consume it raw or by making salads. Considering the most common places of buying, 25.43% of the respondents stated that they buy vegetables from the super markets, 34.8% from a fair, 36.26% from a nearby market. Few respondents stated that they grow vegetables in the home garden for consumption (4.79%). Considering the transport chain, most of the places in Gampaha district receive vegetables from Pettah while Pettah receives vegetables from Dambulla and Nuwara-Eliya.

Conclusion: Majority of Gampaha residents depend on vegetables receive from Dambulla and Nuwaraeliya. They rarely consume vegetables from their home garden. In addition, a considerable amount of people consume vegetables in fresh form,

Keywords: Vegetable, Consumption pattern, Gampaha

OP63

The Bilateral Relationship between Tourism and Dengue in Sri Lanka

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Introduction: Dengue can pose various risks for international travel and tourism, depending on the characteristics of both the traveler and the travel. Travelers may cause serious health risks that may arise in areas where dengue occur. The economic and social impact of dengue fever or dengue hemorrhagic fever can be enormous, placing significant burdens on affected communities. This includes loss of life, huge medical expenditures, loss of productivity, loss of tourism. Sri Lanka tourism has achieved a new high record of 1,798,380 arrivals in 2015, transcending all time high hits in the history, which is an increase of 17.8% over the previous year's 1,527,153 arrivals (SLTDA, 2015). It is very essential to estimates the bilateral relationship between whole year seasonal patterns of dengue and tourism in Sri Lanka.

Objective: To identify the impact of dengue on tourism in Sri Lanka.

Methods: Census X-12 decomposition method used to analyze the seasonal patterns of dengue and tourism during the year 2015. Analysis included panel data unit root testing, panel data regression and Mahalanobis distance calculation.

Results: 29777 dengue cases were reported during 2015 and 1,798,380 tourist arrivals reported in the same year. High numbers of dengue cases reported in January-6345, February- 3731, November-2762 and December- 3688. The results show that tourist arrivals increase during the peak time of dengue. The Mahalanobis distance showed the non-sensitivity of dengue cases to tourism and tourism was strongest in January, February, July, August, November and December.

Conclusions: The result show that increases of tourism while dengue cases are high at the peak season of dengue and the tourism has increased in Sri Lanka, while dengue case themselves had no influence on the number of tourists visited.

Key words: dengue, tourism

OP64

Affordable and Clean Energy

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Introduction: Solar photovoltaic system project aims to enhance the sustainability of the International Institute of Health Sciences (Pvt) Ltd, (IIHS) Sri Lanka focusing the aspects of ensuring the environmental sustainability and reduction of expenditure on energy. Ensuring the sustainability of the environment is intended to be achieved by the reduction of carbon foot print. Complying with the mandatory limits set by the Kyoto protocol and Paris agreement, reducing carbon foot print will eventually reduce the carbon emissions. The goal number 7 in the United Nations Sustainable Development Goals initiative envisages companies to take this direction.

Objective: To evaluate the feasibility of converting the conventional power supply of IIHS to solar energy.

Methodology: A cost calculation was done considering the energy requirement of IIHS Welisara premises, the monthly electricity expenses and an investment plan for a solar power system.

Results: Monthly average energy requirement of the IIHS is 7200 units and the average monthly electricity cost is Rs.165,000/-. To cover up the total electricity requirement, needed solar plant cost is Rs.10 M. If we finance the project through a bank loan for a period of 07 years at the concessionary rate of 13.5%, we need to pay only additional Rs.20,000/- per month as loan installment. After 07 years period the electricity cost will become a zero value.

Conclusion: It would be feasible on financial terms to opt for a 90% coverage of electricity requirement using solar energy. However the feasibility should be reassessed in the presence of a carbon credit system.

Key words: Solar power, Energy, Feasibility

OP65

Identification of Algal blooms in the artificial pond of International Institute of Health Sciences, Sri Lanka

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Introduction: *Algae blooms* form in *fresh water* when cyanobacteria or algae grow quickly and form scums or mats in the water. Weather condition may be responsible for the development of algal blooms. Nutrients, heat and sunlight allow algae to grow at a rapid rate and dense algal blooms may develop. The colour of blooms may be light green, bright green, green brown or even chocolate. Although most of algal species are not toxic, certain species can release toxic substances to the water body.

Objective: To identify cyanobacterial and algae species and to quantify them.

Method: The algal specimens were collected regularly from floating habitat, attach with some submerged plants and growing on side walls of pond periodically throughout one month. The collected specimens were prepared and observed under compound light microscope. Morphological identification was done with the help of standard monographs (Desikachary, 1950). The dominant organisms were quantified using the counting chamber. Photographs of the pond were taken daily to observe the colour change in the pond over the time.

Results: Mainly 5 organisms were identified. *Scenedesmus sp.* and *Chlamydomonas sp.* were the algal species while *Anabaena sp* and *Oscillatoria sp* were the cyanobacterial species identified. Water samples contained *Diatoms* and *Desmids*. It took 10-15 days to change the appearance of water from clear to turbid green colour. Major organisms which had been seen were *Scenedesmus* and *Chlamydomonas*. Quantification revealed that 1,080,000 cells/ml of *Scenedesmus sp.* and 1,450,000 cells/ml of *Chlamydomonas sp* at the beginning. After three weeks the values changed to 3,580,000 cells/ml and 15,730,000 cells/ml for *Scenedesmus sp.* and for *Chlamydomonas sp.* respectively.

Conclusion: *Scenedesmus sp.* and *Chlamydomonas sp.* are the major microorganisms live in IIHS artificial pond. When the concentrations of *Scenedesmus* and *Chlamydomonas* are high, the turbidity of water is high. Therefore the level of turbidity is directly proportional to the number of microorganisms present in the sample.

Key words: Cyanobacteria, algae, artificial pond, Morphological identification

OP66

Sustainability of Biogas as an alternative source of energy for Liquid Petroleum (LP) gas

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Introduction: The contribution from the renewable energy for the world's total final energy consumption has increased remarkably from last decade. It is evident that the world is moving for biofuel which is mainly generated from crops which will eventually threaten the food security and simultaneously cause inflation. So it is rather effective if the food waste is utilized for biofuel generation as one third of the food produced worldwide is wasted either in production or consumption systems. The production of biofuel is sustainable, renewable, carbon neutral and reduces the dependency from fossil fuels. Furthermore the environmental impact when compared to fossil fuels is negligible.

Objectives: For sustainable production of renewable biogas as an alternative source of energy for LP gas in a small scale concept for energy self-sufficiency.

Methodology: The amount of food waste and waste water produced per day was measured along with the required amount of LP gas. The initial cost of the bio gas unit was also considered.

Results: According to the calculations, the amount of food waste produced per day at the IIHS premises is 8 kg. 4-8 kilograms of food waste and 8-15 liters of waste water will produce 0.3 - 0.4 kilograms of methane. The liquid fertilizer output per day is 6-15 liters.

The LP gas used per day is 0.416 liters. Assuming the efficacy of both LP gas and methane is the same, using the aforementioned amounts of food waste and waste water, the required amount of energy can be produced.

Conclusion: Production of bio gas can be considered as an effective practice, however few drawbacks were also identified. Further improvement of the project can be done in order to upgrade the efficacy.

Keywords: Biogas, Sustainable production, Alternative, Energy

PP1

Identify the Knowledge, Attitude and Practice on Immunization among mothers of Preschool Children in Biyagama Area- Sri Lanka

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Introduction: Immunization is the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine.

Objective: To identify the perception of immunization among mothers of preschool children in Biyagama area Sri Lanka.

Methods: Descriptive, cross sectional, quantitative study was done to examine the differences in knowledge, attitude and practice regarding immunization among 100 mothers of preschool children in Biyagama Area.

Results: The study showed that coverage of immunization was 100%. Out of 100 participants, 26 mothers immunized their children without delay, while 74 mothers delayed the immunization of their kids. The most common reasons for delaying immunization were children affected with fever on the scheduled date in clinic for vaccines and mothers do not have enough time to carry away their babies for immunization, because of their busy life schedule. According to study results, mothers have poor knowledge regarding vaccines. Attitude regarding immunization was quite good than the aspect of knowledge. It was highly specified on the security of vaccines. Practice regarding immunization was considerably poor.

Conclusion: Results showed that actions should be taken to improve the knowledge, attitude and practice regarding immunization among mothers of preschool children, who were in Biyagama area, since there was a significant gap in the perception of immunization.

Keywords: Immunization, Preschool children, Biyagama Area

PP2

Assessing the presence of Polycystic Ovarian Syndrome (PCOS) symptoms and practices related to Menstrual Health

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Introduction: Polycystic ovary syndrome (PCOS) is a complex condition associated with metabolic sequelae including risk of diabetes and cardiovascular disorders. The prevalence is not known for Sri Lanka, but is said to be having a high variability like from 2 - 26% among some South Asian communities.

Objectives: To assess the presence of Polycystic Ovarian Syndrome (PCOS) symptoms and practices related to Menstrual Health among urban Sri Lankan females.

Methodology: A descriptive cross sectional study was done on conveniently selected 215 women between ages 18- 40 by using a self-administered questionnaire in Gampaha District, Sri Lanka

Results : 31% between 21 - 25 years and had 4 days of menstruation. Nearly 84% had period related pain. Most common pain pattern was before and during menstruation. Out of 215, only 22 had irregular menstruation often. Out of them only 8 had taken medication. Majority had headache, pelvic pain, mood changes and weight gain as period related symptoms. Nearly 63% had anger as a common period related emotional effect. Only 30% had reordered period dates for the last one year. Majority of the women had never documented their period patterns. 41% had family history of diabetes and 13% had hypertension. Nearly 4% of them had taken contraceptive pills to bring on a period. 59% had children. Out of them 26% has had gestational diabetes.

Conclusion: PCOS symptoms were common among the women and a majority had unsatisfactory practices towards good menstrual health.

Key words: PCOS, Menstrual Health, diabetes and cardio vascular disorders

PP03

Assessing awareness of patients on Health information provided by Health Care Professionals (Nurses, Doctors and pharmacist) in Kurunegala District

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Introduction: Non communicable diseases (NCDs) are common amongst the adults in Kurunegala district. Considering the socio economic background of this population who lives fairly away from the capital city, it is important that they receive accurate and detailed health information regarding their disease conditions and treatment, from healthcare workers such as nurses, doctors and pharmacist.

Objective: To assess the adequacy of health information provided on NCDs by health care workers and the patient satisfaction on it.

Methods: A descriptive crosssectional study was done on 114 individuals from Kurunagala District using a self-administered questioner. Satisfaction on information provided by doctors, nurses and pharmacists were assessed.

Results: Majority of the respondents were males (60.5%) and 39.5 were females, the mean age was 39.7. 55.8% of the participants were married. 78.6% had diabetes mellitus and 51.8% has hypertension. 75.9% of the doctors did not consider the patients financial background when prescribing medicine. Higher patient satisfaction ratings were received by government nurses in terms of information providing (68.5%). 71.2% of the pharmacist did not explain about the generic form of the drug which was prescribed to them also 66.7% of the pharmacists did not explain how the prices changed with the different brands. In general 84.7% of the population were satisfied with the information provided by health care professionals.

Conclusions: Though the level of information provision seems inadequate, patients are still satisfied with it. That could be probably due to poor awareness.

Key words: Health Information, Health Education, Patient Advice,

PP04

Awareness on Physiotherapy among Hemophilia Patients in Sri Lanka 2016

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Introduction: Hemophilia is a significant bleeding disorder which can cause several musculoskeletal (MS) related complications following bleeds associated with the MS system which can lead to further deformities. Although proper exercises can prevent or reduce those complications, it is unclear the knowledge or practices of hemophilic patients with this regard.

Objectives: To assess the level of awareness on physiotherapy treatment for hemophilia patients.

Methodology: A descriptive cross sectional quantitative study, using a questionnaire was done on conveniently selected 40 hemophilic patients in Sri Lanka

Results: Age distributions between 8 - 13 and 19 - 30 years were equal. 60% had problems in the knee joint when they did forceful activities. Only 7.3% were admitted to the hospital due to any bleeding episodes. 87.5% participants had received clotting factors. Out of that, 54.1% had taken more than 10 times. Majority had physical difficulties after an injury. 41.5% had informed the same for treatment from a physiotherapist. Only 12.2% had any fear to do exercises. But nearly 30% of them have done exercises and majorities have done the recommended 30 min to 1 hour in 5 - 7 days. 14.6% believed that exercise won't help to recover and continue daily activities after an injury. If pain occurs in between exercises, 68.3% said they will stop that immediately.

Conclusion: Even though majority had difficulties after an injury only few opted for physiotherapy and the overall exercise awareness was unsatisfactory.

Key words: Hemophilia, Physiotherapy, Physiotherapist, Bleeding episodes

PP05

Awareness on snake bites knowledge and practices among adults, in Ragama area, Sri Lanka

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Introduction: Around 33,000 snake bites were recorded in 2008 around Sri Lanka. Death rate due to snake bites is one of the highest in the world which is 6 in 100,000 populations. 15% of incidents had been inflicted on roads. Gampaha district and Ragama suburb considered to be one of the common areas for snake bites incidents. There are 96 identified species of snakes in Sri Lanka and out of them 7 are considered to be venomous. Traditional treatments for snake bites are popular among Sri Lankans.

Objectives: To assess awareness, knowledge and practices of snake bites among adults around Ragama.

Methodology: Quantitative cross sectional descriptive study conducted using a self administered questionnaire among 250 adults in Ragama.

Results: The survey included 68% of females & 32% of males. 52% stated that they can recognize a venomous snake but only 8% were actually competent to identify a fetal snake. Respectively 110 believed encountering a deadly snake would occur during Day time, while 48 stated that it depends on the type of the snake. Upon questioning if they inflict a snake bite, 92% stated to always catch the snake prior to transport the victim to the hospital. 99% of the responders affirm that applying a tourniquet can reduce the spread of venom while 36% believes that following a snake bite, a second person should suck the venom out from the affected area.

Conclusion: Despite the moderate knowledge regarding snake types and recognition, the pre hospitalization management remains at a very poor level.

Key words: Snake bites, Knowledge and practices, Adults, Ragama, Sri Lanka

PP06

Awareness on Tuberculosis among Population in overcrowding areas of Sri Lanka

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Introduction: Sri Lanka is becoming a labor-receiving country, especially from India and China, due to the currently on going major development projects. Consequently, risk of the spread of the tuberculosis disease through migration has also increased. The estimated detection rate for Sri Lanka should be 66 cases per 100,000 populations, according to the World Health Organization (WHO) standards. Hence, it is important to identify the knowledge of the public in this regard.

Objective: To assess the awareness and knowledge on tuberculosis among population in overcrowding areas in Sri Lanka.

Methodology: A descriptive study was done by conveniently selected 200 participants from overcrowding areas in Sri Lanka by using an online questionnaire.

Results: 24 % of the participants did not know that *Mycobacterium tuberculosis* is the main cause for tuberculosis. Majority were not aware about pulmonary tuberculosis and extra pulmonary tuberculosis. Majority of the participants did not have knowledge about risk factors and the symptoms of tuberculosis. 32 % of the participants had family members who suffered from tuberculosis while 42.2 % did not know about treatment duration of the diseases. 42% did not know that tuberculosis medicines are freely available in district chest hospitals. 53% did not know that good ventilation and sunlight can destroy tuberculosis germs in the environment.

Conclusion: The awareness on the tuberculosis among population is in a very low level.

Keyword: Awareness, Tuberculosis,

PP07

An explorative study of the Socio - economic status and Learning Styles of University Students in Sri Lanka

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Introduction: An issue facing higher education in Sri Lanka today is that students from lower socio-economic backgrounds are significantly less likely to believe that a university education would offer them the chance of an interesting and rewarding career when compared with students of higher socio-economic backgrounds. Parents need the children to be employed for earning an income as soon as they leave school.

Objectives: To determine the socio-economic status of university students and to identify the relationship between socio- economic status and learning styles.

Methods: Descriptive statistics have been applied to address the objectives. Sample consists of 200 final year students from four universities from the Western Province. Questionnaires and interviews were used to collect data.

Results: Majority of university students were from a middle class family background. Most of the parents of Art faculty students did not have own houses. This is because of low socio economic background with low levels of income. Approximately 41% of university students were on Mahapola scholarships.

Conclusion: Most of the students from low socio economic back grounds compelled to follow art subjects. They are having less internet facilities at residences to continue studies in comparison to others. In view of their socio-economic status, they were not able to gather any information or knowledge during the university vacations.

Key words: Socio-Economic Status (SES), Learning Styles, University Students

PP08

Knowledge and Attitudes in Continuing Nursing Education among Nurses in National Hospital, Sri Lanka, 2016

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Introduction: Continuing education has become a trend in modern nursing since it enables nurses to update the knowledge, skills and attitudes regarding their scope of practice. When professional nurse engages in lifelong learning that will influence practice and ultimately impact the quality of care that a patient receives. CNE (Continuing Nursing Education) has become mandatory for nurses since CNE overcomes the new challenges in health care field. In Sri, Lanka, where nursing is in the process of professionalization, nurses still seem to show limited participation in CNE

Objective: To assess the knowledge and attitude of nurses towards continuing nursing education in Sri Lanka

Methods: A quantitative descriptive cross sectional design was done on convenience sample of 150 nurses working in a national hospital using a self-administered questionnaire.

Results: Majority of nurses (92%) accepted that CNE updates knowledge, skills and attitudes in nursing. 92% participants said they need CNE. However, participation of the CNE programme with in last 12 months is 44%. 91.2% of respondents have mentioned that CNE is an opportunity to keep current with advances in nursing knowledge. 49% stated with heavy work load CNE is difficult. And 68% agreed available resources are not adequate. 72% agreed that higher authority do not support adequately for the CNE

Conclusion: According to these results, that nurses have a less and minimum participation in CNE. It cause to personal and professional barriers, though they have a positive knowledge and attitude towards CNE.

Key words: Continuing Nursing Education (CNE), knowledge, attitudes, national hospital

PP09

Assessment of variations in Body Mass index among Nursing Students, School of Nursing, Kandy

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Introduction: Improvement in standards of living, decrease in physical activities and dietary changes has a significant impact on the health status of human beings which require an immediate action. Both malnutrition and obesity coexist in many countries, leading to severe conditions and lifelong complications.

Objective: To assess the variations in Body Mass Index of the female nursing students at nursing training school in Kandy.

Methods: A quantitative cross sectional study was conducted among 100 conveniently selected female nursing students from School of Nursing, Kandy.

Results: Upon asking regarding their meals, 66% of the population admitted to take their food from home, 23.3% from the hostel while 10.7% from the canteen. 87% consume rice throughout all the three meals while only 5% consume vegetables and fruits. No more than 6% of the population engaged in regular physical activity; out of that 6%, 40% results in exercising from 30 minutes to one hour while 60% dedicate less than 30 minutes. 31.1% of the individuals confirmed to have family history of obesity while 68.9% resulted negative. When questioned regarding the measures to maintain a proper BMI, 34% responded to prefer dietary intake control while 5% through physical exercise and 10% with stress management.

Conclusions: Overall the acquisition of nutritional values through food remains at a poor level among nursing students. Involvement in physical activity also remains at a very unsatisfied level. Overall majority of the students were identified with signs of malnutrition while only a limited amount of participants were within the normal range.

Key words: Body Mass Index, Nursing students, Sri Lanka

PP10

A Study on Pregnant Mothers' Knowledge regarding Antenatal Exercises in a Sub Urban area, Western Province, Sri Lanka

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Introduction: Safe maternity with improved neonatal outcomes is predicated on proper antenatal health care services. Regular exercise is promoted for its overall health benefits. Pregnancy is a good time to develop healthy lifestyle habits including regular exercise.

Objective: To evaluate the knowledge and practice of pregnant women with respect to appropriate Antenatal Exercise (ANEx) during pregnancy in a sub-urban area in Sri Lanka.

Method: A descriptive cross sectional quantitative study was done on 120 participants which was selected using convenient sampling from antenatal clinic Piliyandala sub urban area of Colombo. Data collection tool was a self-administered questionnaire.

Results: More than two-thirds (88%) of the women stated they were not practicing exercises during pregnancy and the vast majority (87%) do not have knowledge regarding ANEx. Only 7% of respondents were doing walking, 3% were doing stretching, 1% were doing swimming and 1% were doing relaxation and breathing exercises. 87% of respondents had awareness regarding the benefits of exercise and 13% were not. And also 1% of respondents were not feeling relaxed after doing exercises and 13% respondents stated that they felt comfort after doing exercises. Lack of knowledge, lack of time and feeling uncomfortable were the main reasons given by the pregnant women for not practicing the exercises.

Conclusion: The knowledge of pregnant women on exercise during pregnancy was less than average. However a very few were actually practicing exercise in pregnancy.

Keywords: Pregnant mothers, Knowledge, Antenatal Exercises

PP11

Analysis of unmet needs of Elderly Population in Kalutara District Sri Lanka in 2015

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Background: The number of people age 70 and older with activity limitations is expected to increase substantially over the next several decades as the number of elderly increases. As the people with latter part of the life, meeting day today need is a great challenge and dissatisfaction may lead lots of problems with impact of quality of life.

Objective: To analyze the unmet needs of elderly population in Kalutara District in Sri Lanka.

Method: A descriptive cross sectional study was done on 560 elderly people above 65 years in Kalutara district which was selected through Stratified randomized sampling method. Data collection tool was a self-administered questionnaire.

Results: Physically unmet needs were significantly based on Activities of Daily Living (ADL) (30.4%). Psychosocial unmet needs were anxious frequently (63.8%), poor income (57.7%), unable to participation of social activities (40.2%), not involving family decision making (25.5%) and poor interpersonal relationships (25.3%). When compare the dissatisfaction level as social being among genders females (35.5%) were striking than males (26.1%). The recognized unmet medical needs were poor self-health due to NCDS (72.7%), not performing exercises (83%), long queue at doctors (52.7%), Poor financial assistance for treatments (51.3%), lack of health education (39.1%) inequality of distribution of health care and facilities (26.4%) and poor quality of receiving care (18.6%)

Conclusion: Study findings revealed physical, psychosocial and medical unmet needs correlated to the dissatisfaction of elderly. Considerable proportion of sample reported unmet needs related to these three domains and it is required to get measures to meet needs at maximum possible level and improve elderly satisfaction.

Key words: Elderly people, unmet needs

PP12

A descriptive study on Knowledge and Practice on Administration of Paracetamol to children among mothers visited Ja-Ela MOH in October 2016

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Introduction: The deficient knowledge, malpractice and negligence when administering Paracetamol domestically to children leads to many complications. The level of knowledge, practice & mistakes made by mothers when administering paracetamol domestically in Ja-Ela is yet to be known.

Objectives: To assess the level of knowledge and practices regarding domestic administration of paracetamol to children among their mothers.

Methodology: A quantitative, cross sectional study was conducted among 30 mothers visiting Ja-Ela MOH, using an interviewer administered questionnaire.

Results: According to the results of the study majority of the mothers, that is 45.7% administered paracetamol syrup according to the manufacturer's guidelines while 37.5% calculated the dose according to the weight of child and 15% of mothers administered paracetamol according to a previous prescription. In addition 60% of the sample used measuring cups to measure doses prior to administration. 90% of mothers followed the standard frequency while 7.5% administered paracetamol syrup 8 hourly.

Conclusion: It can be concluded that the knowledge and the practice of mothers attending the *Well Baby Clinic* on administration of Paracetamol to their children is up to the satisfactory level.

Key Words: Paracetamol Administration, Knowledge and Practices, mothers, Ja-Ela

PP13

The Knowledge, Attitudes and Practices of Febrile Convulsion among the parents visited Ja-Ela MOH on September 2016

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Introduction: Febrile convulsion is one of the most common problems in the children aged 6 months to 5 years. Prevention and successful initial management at home is challenged by lack of knowledge and appropriate practices among the mothers. This study is aimed to identify knowledge, attitude and practices of mothers regarding febrile convulsions.

Objectives: To evaluate the knowledge on awareness of febrile convulsion among mothers, compresence the related myths and practices among mothers.

Methodology: A quantitative, cross sectional study was conducted among 50 mothers visited Ja-Ela MOH, using a self-administered questionnaire.

Results: The results shows only 2% of mothers had good knowledge about the febrile convulsions while 54% of mothers had moderate knowledge and 44% of mothers with inadequate knowledge. 82% of mothers had good attitudes, while 9% of mothers had moderate attitudes towards initial management of convulsions. Level of Good practices according to the results on febrile convulsions was 76% while moderate practices were 18% and the rest 6 % had very poor practices.

Conclusion: Mothers with children aged ranging from 6 months to 5 years had satisfactory levels of knowledge, attitudes and practices regarding febrile convulsions.

Key Words: Febrile convulsions, Mothers awareness, Ja-Ela, myths on convulsion management

PP14

Assessment on Perception and Awareness of 'Postpartum Blues' among Sri Lankans

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Introduction: Postpartum depression is growing globally. Postpartum depression is preceded by 'postpartum blues'. The stigma related to postpartum blues causes the condition to go neglected. Therefore awareness is vital for the public in order to prevent this condition from progressing to postpartum depression.

Objectives: To assess the perception and the level of awareness of 'Postpartum blues' among Sri Lankans.

Methods: A descriptive cross-sectional quantitative study on 311 participants using convenient sampling with self administered questionnaires. Additionally, 100 online questionnaires were distributed.

Results: 56.6 % perceive postpartum blues as an abnormal condition and 87.8 % of this category defines it as a 'psychiatric condition'. 61.7 % are unaware of the personnel to consult during postpartum blue episodes. 25.7 % do not prefer verbalizing this condition as majority (37.9 %) have dignity issues. In terms of public incidence, 46.6 % have not come across this condition. 92 % are aware of hormonal changes in mothers. However, 69 % have discerned that women suffer postpartum blues if they are easily stressed. 57.67 % of the population identified the general changes after childbirth among mothers.

Conclusion: Evidently, though the symptoms of postpartum blues are recognized to exist among any new mother, the condition itself is disregarded.

Key words: Postpartum blues, Depression, Perception, Mothers

PP15

Assessment of knowledge of nursing staff regarding Critical phase chart monitoring of DHF Patients; SJGH in Sri Lanka

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Introduction: The hallmarks sign of the Critical Phase (Leaking phase) in Dengue Hemorrhage Fever (DHF) patients, Nurses play major roles in clinical settings. Hence they should possess a comprehensive knowledge regarding DHF and the critical phase in DHF.

Objective: To assess the knowledge and attitude of the nursing staff of Sri Jayewardenepura General Hospital (SJGH), Sri Lanka, regarding critical phase chart monitoring of DHF patients in SJGH.

Method: Convenience sampling method was followed in this research to achieve proposed objective. A self-administered questionnaire was used to gather data from 100 individuals in a quantitative arm.

Results: identification of nurses were; entry of the critical phase (64%), signs and symptoms 78%, investigation changes 79% , and fluids requirement of critical phase 64%. A significant correlation was observed between nurses' knowledge and education level ($p= 0.013$) in the critical phase chart monitoring. Further, 96% of nurses had good attitude levels. However no significance relationship between nurses' working experience and knowledge ($p=0.575$) and attitude ($p= 0.632$) could be observed; proper charts were not maintained by 40% due to heavy workload and insufficient knowledge.

Conclusions: Nurses had a comprehensive knowledge regarding critical phase and positive attitudes towards maintaining critical phase charts. Further education, awareness programs coupled with upgraded critical care facilities could improve the care for dengue patients

Key Words: Dengue Hemorrhagic Fever, Critical Phase, Critical Phase Chart Monitoring

PP16

Assessment of Knowledge and Attitudes on Eye Disorders among Estate People in Craighed estate in Gampola Area- Sri Lanka

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Introduction: Avoidable conditions, which can be influenced by socioeconomic factors such as low education and poverty, account for the majority of blindness in the elderly population worldwide.

Objective: To identify the knowledge and attitudes on eye disorders among estate people in Craighed estate in Gampola Area- Sri Lanka

Methods: Descriptive, cross sectional, quantitative study was done for examine the differences in knowledge, attitude and practice regarding the age related eye disorders among 100 adult estate people in Craighed estate in Gampola area.

Results: The results confirmed that majority of people have no literacy and most of them were non government workers (64%). Majority of participants (85%) were aware that cataract can cause poor vision or blindness. Most of the participants (81%) mentioned that they went for eye examination whenever they had a complaint and 89% respondents were not aware that patients with diabetes should be checked their eyes properly.

Conclusion: Results suggested that still there is an urgent need for health education of estate people in Craighed estate, in order to increase their level of awareness and knowledge on common eye disorders. Especial concern should be deliver towards females, lower economic classes and illiterates, since there was a significant knowledge gap among those mentioned groups.

Keywords: Eye Disorders, Estate People, Blindness

PP17

A Study on Awareness on Healthy Life Styles among Communities in Kalutara District, Sri Lanka

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Introduction: Non communicable diseases (NCDs) are the biggest cause for increasing numbers of deaths (75%) worldwide. They pose a major health-care burden worldwide and present a significant challenge to patients, health-care systems, and national economies. Evidence has been further proved that unhealthy behavior are directly associated with these dreadful deterioration.

Objective: To analyze the awareness on healthy lifestyles among communities in Kalutara District, Sri Lanka, focusing on the attitudes and beliefs, psycho-socio-economic factors, foods and eating practices and physical activity pattern regarding healthy lifestyles.

Methodology: A survey based, descriptive, cross-sectional, quantitative study was carried out among 700 people in Kalutara district, which was randomly selected in the age between 40- 65 years. Data collection tool was a self-administered questionnaire.

Results: 66% of the respondents were unhealthy and 61.3% of respondents were not in normal Body Mass Index (BMI) range. 26.4% of respondents have been already diagnosed with diabetes mellitus, 17.7% with hypertension and 11.4% with heart disease. 13.7% respondents were smoking, 16. 7% were taking alcohol and 13.1% respondents were chewing betel. 57.4% had unhealthy dietary pattern. The majority (60%) stated their daily fat consumption is higher, 32.4% of the sample was having high sugar consumption. 60% of subjects were in sitting or in one position for a longer period. 57.9% of respondents reported that they were not doing exercises

Conclusion: Majority of communities in Kalutara District are unhealthy, because of their poor attitudes and beliefs, low education, traditional influences, .adverse psycho-socio-economic factors, unhealthy diet and physical inactivity. Females and low income population are most prominent in this unhealthy group.

Key words: Awareness on healthy life styles, Communities

Suitability of average Sitting Heights of Western Toilets with average Knee Heights in Sri Lankans

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Introduction: Due to unsuitable toileting height, people develop many bowel diseases like haemorrhoids and incontinence. Squatting relaxes the puborectalis muscle, straightens the rectum, and works with gravity for faster, easier, and more complete elimination.

Objective: To select a toilet with a height that allows users to easily sit down, stand up, and comfortably rest both feet flat on the floor while seated on it.

Method: A descriptive cross sectional study involving 85 commodes among conveniently selected on bath ware stores and homes, using the measurements by using inch tape.

Results: Out of 85 commodes only 32 had at least the recommended average sitting heights and average knee heights. 37.6% got the recommended heights. 45.28% commodes didn't have average knee heights and 32.07% of toilets were not in a recommended scale of average sitting heights. 22.26% of commodes don't have either average sitting height or average knee height. The average height was 167.6cm (SD \pm 9.1cm), while the average knee height and knee height as a percentage of body height was 51.1cm (SD \pm 3.6cm) and 30.5% (SD \pm 1.2%) respectively. Using the formula from previous studies, average knee height was identified as 49.84 cm in males and 46.15 cm in females.

Conclusions: Majority of the toilets were below the recommended standards. It can be implied that users are at risk of inconveniences and even injuries due to inconsistencies among toilets and their poor quality. To prevent the bowel diseases and to be comfort toileting height should be according to the standards.

Key words: Sitting Heights, Western Toilets, Knee Heights

PP19

A study on Critical care Nurses Knowledge, Attitude, Practices and Barriers on Pain Assessment in Sri Lanka

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Introduction: There are several researches which have been done in several countries. Nursing researches on knowledge and attitudes of critical care nurse's pain assessment is limited in Sri Lanka. More research is needed to evaluate if critical care nurses are providing optimal pain assessment for their patients and if they have the necessary knowledge and attitude to do so.

Objective: To assess critical care nurses' knowledge, attitude, practices and barriers on pain assessment.

Method: Quantitative and Descriptive Cross sectional Design was done among 110 critical care nurses working at critical care units in the government sector. Data collection tool was a self-administered questionnaire.

Results: The majority of the studied subjects (56%) reported that they had not received education about pain assessment & management. The study findings showed that more than half of the studied sample reported that the factors that may affect their abilities to assess pain were lack of education (89%), Nursing workload (77%), and Patient instability (81%). There is a significant co-relation between the nurses' experience level and their knowledge level. More experience nurses have positive attitudes. There is a significant relationship between graduate nurses and more experienced nurses with their practices.

Conclusion: These findings reflect inadequacy of knowledge on key pain assessment principles which can affect attitude, practice and barriers. Nurses' pain assessment is mostly constrained by; nursing workload, lack of education on pain assessment and tools, patient instability, patient inability to communicate, lack of guidelines and protocols, poor communication, poor documentation, sedations and lack of hospital pain service consultation.

Key words: Critical care Nurses, Pain assessment, Knowledge, Practice, Attitude

PP20

Self-reported eHealth Literacy among Undergraduate Nursing Students in Selected Districts of Sri Lanka

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Introduction: The Ministry of Health in Sri Lanka is leading several initiatives to digitalize the national health system. These include familiarizing both health care workers and the public with the electronic health information sources. However, the current levels of eHealth literacy of the nurses, the largest category of professional health care workers is not known.

Objectives: To assess the eHealth Literacy and among third year Nursing Students and its relationship with their other IT practices.

Method: A descriptive cross sectional study was conducted among 136 conveniently selected 3rd year students from few selected nurses training schools in Sri Lanka (Matara, Ampara and Kandy) in 2016, using the eHEALS self-reported eHealth Literacy Scale.

Results: 88 (64.7 %) uses only their mobile phones to access internet and 20.6 % uses multiple devices at multiple locations. 27.9 % (32) of the nursing students used internet only to access social media. Only 16.2 % used internet for their daily routine work. Cronbach's alpha for the scale was 0.845. Mean eHEALS score (min 8; max 40) was 30.8 with a standard deviation of 3.479. The mean scores for individual scale items were most for knowing where to find helpful health resources (3.96 out of 5) and least for being able to discriminate between high and low quality resources (3.63). The mean eHEALS score does not depend on the duration of internet use ($p=0.532$).

Conclusion: The eHealth literacy among third year nursing students was fairly satisfactory. However, the ability to use electronic resources reliably seems to be questionable.

Key words: eHealth Literacy, eHealth among Nursing Students, Nursing Informatics, eHealth Sri Lanka

PP21

Assessment of the availability of Healthcare Services for the Elderly in Vavuniya

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Introduction: Amidst rapid increase in elderly population, the level of availability of health services in Vavuniya reflects the progress of the country after conflict in geriatric services. This assessment is purposed to define the gap existing between policies set by the healthcare system and its regulation.

Objectives: To assess the degree of availability of healthcare services for the ageing population of Vavuniya to reason out whether the healthcare delivery system is reasonably practicing.

Methods: A descriptive cross-sectional study using self-administered questionnaire on 150 elders aged 60 onwards (male and female) selected with simple random sampling.

Results: From the total population, 55.3% reside within 5-10 km from a clinic and 67.3% were satisfied with the location of facilities and 55% with cost. Out of 46.7% with an income < Rs.3000, 48.6% were not aware about claiming for cataract operations. Out of 30% who faced trauma, 53.3% had no Emergency Medical Services (EMS). However, 66.7% did not claim for health expenses and 54% of this category said it was due to insufficient information and only 21% of people >70 years got senior citizen allowance. Among services, 36.7% received elders' identity cards, 1.3% obtained homecare and 0.7% received physiotherapy.

Conclusion: The relationship between the elderly population and Healthcare body in Vavuniya has to be improved in terms of awareness and disseminating information.

Keywords: Availability, Elders, Aged population, Services

Assessment of risk of falls among elderly clients in Colombo District, Sri Lanka

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Introduction: Risk of falls and injuries gradually increases with age; since elderly adults are more vulnerable to experience inconvenient injuries due to age related multiple medical and psychological problems, an early detection will help to prevent severe consequences. Falling and fear of falling determine a significant impact on an elderly person's quality of life, leading to loss of independence and mobility.

Objectives: To identify risk factors for falls and vulnerability in elderly.

Methodology: A qualitative descriptive study was conducted using an interviewer administered questionnaire among 110 elderly adults residing in aged care facilities. A standard scale prepared by Mount Sinai School of Medicine was used for the interview.

Results: The survey indicates 69% of the participants experienced a fall, from that 78% was subjected to injuries. Four categories were used to assess the risk factors leading to falls. This includes Gait disorder, Postural hypertension, Vision impairments and Foot pain and inappropriate foot wear. 82% had difficulty in getting out of the bed or chair; upon questioning the reason 63% affirmed due to imbalance and 37% dizziness. 78% confirmed to suffer from leg pain due to numbness 17%, swallowing 25%, pain 58%. 89% of the old adults experience vision impairments, among all of them only a small percentage attends to regular vision checkups. 68% of the responders were identified with postural hypertension, after following orthostatic vital signs exercise.

Conclusion: Risk of falls among elderly adults remains at a very high levels compromising clients 'safety and quality of life.

Key words: Risk of falls, Old adults, Colombo, Sri Lanka

Assessing the factors related to misuse of Prescribed Medicines among the Urban Sri Lankan Youth

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Introduction: Abuse of prescribed drugs has increased among youth in Sri Lanka. The global and local guidelines provides the risk factors leading to misuse of prescribed medicines; the actual awareness and practices of the urban youth with this regard is unknown..

Objectives: To identify the knowledge and practices of misuse of prescribed medicine used among the urban Sri Lankan youth

Methods: A descriptive quantitative study was done on urban Sri Lankan youth using convenient sampling from both genders of 15 to 39 years using an online data collection form based on a questionnaire.

Results: Among 300 participants, 47.0% of the respondents agreed that they have used unprescribed medicine on their own. Analgesics (32.7%) was the most commonly misused unprescribed drug. When unprescribed drugs are used, 26.0% of the participants developed an addiction for the drug while getting cured and 24.3% of the participants developed an addiction without a cure. 26.3% of the respondents did not have an idea of the maximum daily dose of a particular prescribed drug. 60.7% of the respondents claimed to know what actions to be taken in case of an overdose. 37.7% of the respondents knew a few side effects and risks of misusing prescribed medication.

Conclusions: It is evident that misuse of prescription drug is a common practice among urban youth and addiction towards the usage of some of these drugs is fairly high. Majority of the participants did not know that their practice was an actual misuse of the drugs.

Key words: Prescription drugs, Pain killers

PP24

Work related safety issues among head carriers in Colombo district

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Introduction: Every day, 6,300 people die as a result of occupational accidents or work-related diseases. More than 2.3 million deaths per year and 317 million accidents occur on the job annually. The human cost of this daily adversity is vast and the economic burden of poor occupational safety and health practices is estimated at 4 per cent of global Gross Domestic Product each year.

Objective: To assess the employees knowledge on, and work related safety issues in their organization and the types of injuries the employees have due to manual handling techniques.

Method: An observational quantitative study was conducted on 80 individuals who carry heavy weights from one place to another and is from the age of 20 and above, using a self administered questionnaire.

Results: Majority of the respondents were from age 31-40. 92.1 % were male and 5.3 % of the respondents were female. 90.8 % of the respondents said that they carry more than 25 kg per day and 10.5 % of the respondents said they carry 500 packages per day. 93.4 % of the respondents said their work place does not use fork lifters and 67.1 % has got injured during work. 89.5 % said the work place was not able to manage injuries and 77.6 % respondents said there are no warning signs in their workplace.

Conclusion: The knowledge of manual handling technique has to improve among head carriers and the workplace should be able to minimize and manage injuries.

Key words: Work related safety issues, Head carriers.

Knowledge on Self-medication with Antibiotics among health related graduate students and Non- health related university students in Sri Lanka

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Introduction: The prevalence of self-medication with antibiotic is quite high in developing countries as opposed to developed countries. Antibiotics are often taken erroneously for certain ailments, without having the appropriate knowledge of their use. This carries potential risk for the individual as well as the community in form of several side effects such as antibiotic resistance.

Objective: To assess the knowledge and attitude on self-medication with antibiotics among non-medical university students and medical university students in Sri Lanka.

Method: A descriptive cross sectional study was carried out on 362 students in different universities of Sri Lanka. Data was collected using self-administered questionnaires.

Result: Around 61% respondents from health related faculties had treated themselves with antibiotics. However, for non-health faculties this value was around 24%. 75% of students had selected convenience as the result for self-medication. More than half of the respondents (53.2%) had selected antibiotics based on previous doctor's prescription. Around 50% of students from health related faculties had always checked instructions come with antibiotic package. However, 55.3% students from non-health related faculties had sometimes checked it. Most of the students (43.2%) stopped taking antibiotics just after symptoms disappear. 55.2% respondents thought that self-medication with antibiotic was not an acceptable practice.

Conclusion: More respondents from health related faculties used antibiotics than students from non-health related faculties.

Key words: Knowledge, attitude, Self-medication, Antibiotics

A study on Refractive Errors in Children in rural areas in Sri Lanka

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Introduction: This survey has done in Singhapura Kalapaya, which is geographically well defined rural village in Polonnaruwa district, in north central province of Sri Lanka. The willage is located 230 km northeast to the Capital, Colombo and the survey has done in April 2016 by using 588 eligible children in 935 households.

Objective: To asses the Prevalence of Refractive errors and visual impairment in school aged (5-15 years) children in rural Sri Lanka.

Method: A population based cross sectional survey was arranged for the children, aged between 5 and 15 years in the district in order to get more detailed causes for poor vision

Results: No significant correlation found between age and refractive errors. Though number of male and female child were equal in astigmatism, females childs had higher prevalence of myopia. Between gender and refractive errors also has no significant correlation. There was a significant relationship between parents educational level and the child's visual impairment. Whereas 65.6% (353) of population were willing to consult an ophthalmologist for poor vision and only 21.7% (117) of them were satisfied with optometrists checking. 1/3 of population were awred about the requirement of regular using of apectacle. However 1/3 of population have the opposite idia. On the otherhand 1/4 of parents believed the use of spectacles for a few years is adequate. 61.3% (330) of them have misconception that regular wear of spectacles will cause aggravation of the disability. 79% of the population (425) were award about the important of regular vision checking.

Conclusion: The poor vision in children in Sinhapura is mainly due to refractive error and astigmatism predominates with myopia. Using spectacles might relieve most of the vision impairment in children in this area. Providing proper health service, distributing free spectacles as well as individual advising will not completely over come this problem. Educating the community about refractive errors and the important of healthy eye will also will play an important role to over come the problem.

Key words: Refractive error, Children, Rural Sri Lanka

PP27

Assessment of the knowledge on First aid Management of Snakebite among first year nursing student in school of nursing Hambantota in Sri Lanka

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Introduction: Snakebite is a global health problem associated with high morbidity and mortality. In Sri Lanka, most of the People in rural dry zones like Hambantota, Anuradhapura, Puttalama, Monaragala and Ampara are suffering with morbidity of snakebite. Snakebite is mainly an occupational health hazard associated with farming.

Objective: To assess the knowledge on first aid management of snakebite among first year nursing student in school of nursing Hambantota in Sri Lanka

Methods: The study methodology involved a survey self-administered questionnaires. Target group was 80 first year student Nurses school of Nursing Hambantota in 2014.

Results: According to the research findings 75% of participants were from Hambantota district and 25% of them were from Monaragala district of Sri Lanka.10% of the participants live in urban areas and 80% of them live in live in village areas.10% Participants live in rural village areas of the two districts. The vast majority of the study Participants Preferred allopathic treatment for snakebite over traditional / Ayurveda treatment. It was 99% according to this survey result the vast majority (81 %) of the study group did not believed that tourniquet above the bite wound as the immediate first aid measure.

Conclusion: High Percentages of the participants confidence in knowledge regarding recommended first aid measures. Western medical treatment was preferred by the vast majority of the participants over the traditional treatment.

Key words: First aid management, Snake bite, Nursing students

Awareness on risk factors associated with Coronary Artery Disease among Bystanders of the patients who visit the Cardiac Cath Lab to undergo Coronary Angiogram in Asiri Central Hospital, Colombo, Sri Lanka

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Introduction: Cardiovascular disease (CVD) is the leading cause of death globally, and it disproportionately affects developing countries. Coronary Artery Disease burden is fuelled by the rising prevalence of cardiovascular risk factors. Awareness represents a major modulator for the uptake of preventive measures and healthy life-style choices. In order to improve their risk profile, individuals need to be aware of the existence of cardiovascular (CV) risk factors.

Objective: To assess the awareness on risk factors associated with Coronary Artery Disease among the bystanders of the patients who visit the Cardiac Cath Lab to undergo Coronary Angiogram at Asiri Central Hospital, Colombo, Sri Lanka

Methods: A descriptive Cross Sectional Quantitative study was conducted in Cardiac Cath Lab of Asiri Central Hospital from 01 May 2016 to 31 May 2016. Questionnaires were distributed to 150 bystanders of the patients who visit the Cardiac Cath Lab to undergo Coronary Angiogram. The questionnaire contained part one as demographic data and part two as assessment of knowledge of risk factors on CAD. Also visitors who are illiterate and people who are disabled were excluded from this study.

Results: When analysing collected data gender differences did not exert any significant influence ($p=0.375$) on any of the studied factors. However, there is an association with age ($p=0.005$) and awareness on risk factors of CAD. Further, it was founded that significant association with education level ($p=0.001$) for awareness on CAD.

Conclusion and Recommendation: The study findings emphasized need to establish more wide-spread and effective educational mediations, which should be sensitive to the perceptions, attitudes, and abilities of targeted individuals.

Keywords: Coronary Artery Disease, Bystanders

**Awareness on Chemotherapy Medication among Cancer Patients in Cancer Unit,
Teaching Hospital, Karapitiya, Sri Lanka**

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Introduction: Chemotherapy is a category of cancer treatment that uses chemical substances, especially one or more anti-cancer drugs (chemotherapeutic agents) that are given as part of a standardized chemotherapy regime.

Objectives: To identify awareness on chemotherapy medication among cancer patients in cancer unit, Teaching Hospital, Karapitiya, Sri Lanka.

Methods: A descriptive study was done on 100 female and male cancer patients selected using cluster sampling from a typical cancer unit in Teaching Hospital, Karapitiya, Sri Lanka.

Results: According to the research statistics data which collected in year 2016 in oncology unit there are 72% of participants that do not have knowledge on chemotherapy. 64% of participants are do not know about side effects of chemotherapy. 88% of participants have not discussed with medical officer about chemotherapy administration. 77% of participants do not know how to the reduce side effects of chemotherapy. 65% of participants do not know about how long chemotherapy administration for them.

Conclusion: Most cancer patients who treated from chemotherapy drug do not have knowledge about chemotherapy and importance about chemotherapy, side effects of chemotherapy, importance about chemotherapy and how long chemotherapy is given.

Key Words: Chemotherapy Medication, Cancer patients

Study on Awareness of Occupational Health and Safety among Healthcare Workers at a Leading Private Hospital in Sri Lanka

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Introduction: The vision of Occupational Health and Safety (OHS) is to create better, healthier and more competitive workplaces for sustainable development of health institutions. Hospitals provide wide range of services due to which health workers are exposed to list of potential hazards. As there are millions of health workforces it is necessary to protect this vulnerable group and promote their health. This study set out to investigate the awareness that health workers in hospital environments have of the hazards to which they are exposed, and the controls which may be implemented to reduce exposure to these hazards, in the work setting.

Objectives: The objectives of this study were to investigate awareness of occupation health and control measures. The researcher wanted to establish whether any relationship existed between awareness and socio demographic status.

Method: This hospital based cross-sectional study was conducted in leading private hospital in Sri Lanka. Study population includes 7 professions i.e. Nurses, Medical Laboratory Technicians, Radiographers, Pharmacists, Nursing Assistants, Technicians and Channel Aids. Data were collected by self-administered questionnaire. Data were analyzed with the use of the SPSS, version 19.0.

Results: The health care workers in this study were found to have a good knowledge and understanding of the hazards and controls for hazards, to which they were exposed, in the hospital environment. The health care workers were more knowledgeable regarding Infectious Blood and fluids, Long working hours, Night and shift work as biological and psychological occupational hazard. But more than 75% of participants were got risk by Infectious Blood and fluids, Night and shift work, Patient violence in the last year. Majority of the respondent (100%) identified psychological problem (stress) as a significant adverse health effect of psychological hazards and minimal amount of participants identified cancers and shocks as adverse effects of hazards respectively 62%, 54.7%. (82%) of respondents were get affected by psychological problems in last one year. More than half of the population was get affected by cut and prick injuries as adverse health effect of physical hazards. 100% participants stated there were used standard hand washing techniques, aseptic technique to reduce patient/client exposure to micro-organisms, appropriate personal protective equipment (PPE) as control measures of OSH in the hospital currently. 100% of participants identified there were not periodic health and risk assessments in this hospital. Age, Occupation, Professional Qualification were correlated with awareness of OHS. Recommendations which have been made to address this poor level of knowledge and understanding have been made based on the research findings.

Conclusion: This study shows that the health care workers in this hospital have a fair awareness regarding occupational health and safety.

Key Words: Occupational Health & Safety, Healthcare Workers, Health Hazards

Assessing knowledge, practices and awareness among A/L students about Health and Safety Issues in School Laboratories in Kegalle District

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Introduction: School laboratory is a place where the students engage in practical works in related to science stream. Although the working environment in schools is not as dangerous as in actual laboratory environment, it cannot be considered as completely free of health and safety issues. If the issues are not properly recognized and assessed, the health and safety of school students and personnel may be at risk.

Objective: To assess the knowledge, practices and awareness among A/L students of health and safety standards in school labs.

Methods: Descriptive study was done on 300 A/L students selected from schools in Kegalle district using a self-administered questionnaire.

Results: Out of 264 students, 94.7 % of them were following safety procedures within in the laboratory. 71.1 % of the respondents stated that they are aware of the hazards they are being exposed to. 42.04 % of the individuals did not know how to act in emergency situation. 89.3 % of the respondents stated that they possess a laboratory first aid kit. 40 % of students do not wash their hands during practical hours and even before they leave the laboratory. 81.4 % of students are aware that eating and drinking are prohibited in the lab. 84.5% of the students stated that they only wear gloves during their practical hours.

Conclusion: Students have a considerable knowledge and awareness on laboratory health safety issues. However, the facilities at schools should be improved in order to provide better safety conditions in laboratories.

Keywords: Knowledge, Practices, Awareness, Health and Safety, Schools.

The Perception on the Health Ethics concept of Autonomy among Sri Lankan Public

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Introduction: Autonomy is associated with allowing or enabling patients to make their own decisions about which health care interventions they will or will not receive. The interpretation of ‘autonomy’ is highly doubted in a South Asian country like Sri Lanka when compared to ‘western’ concepts due to many influences.

Objectives: To identify the differences between the perceptions for autonomy in the Sri Lankan context Vs western context and to understand the factors that influence the autonomy of a health care seeker.

Method: Descriptive cross sectional quantitative study was done on 220 males and females between 18 years and above using convenient sampling in the Gampaha District Sri Lanka with the use of a self-administered questionnaire.

Results: Among 206 eligible participants, majority of 148 were female. 122 respondents were married. Different aspects on autonomy were assessed and responses were classified as autonomously desirable and undesirable. The desirable response percentages were 68.4% for minor decision making, 50.5% for major decision making, 53.9 % for decision making for elderly family member, 55.3% for giving consent for one’s child. However in many cases majority (35%- 55.4%) opted to seek the opinions of their spouses, family, friends and relatives. A score was given for the desired answers given by them. Only 1 respondent have achieved 9 out of 9, 15 respondents have got zero and majority of 38 have scored only 6 out of 9.

Conclusion: The interpretation of autonomy differs and influenced by different external factors with the contexts that is referred to.

Key words: Autonomy, Health ethics, Patients perception, Sri Lanka

Health seeking behavior among First Nations (Indigenous Vedda Communities) in Sri Lankans

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Introduction: The Vedda communities are the oldest identified ethnic group in Sri Lanka, comprising less than 0.13% of the country's population. Their recorded history and culture dates over 2500 years, which includes traditional treatment methods of their own.

Objectives: To evaluate the health seeking behaviors and the determinants of them, among the indigenous Vedda people of Sri Lanka.

Methodology: Three Focused Group discussions were conducted among the indigenous Vedda communities living in Dambana, Sri Lanka. Each group had 8-10 individuals. A discussion guide was used. A pre-trained translator was also present.

Results: Thematic Analysis was performed and four themes were identified. They were, 'health seeking depended on 'trust on the system'', 'traditional beliefs can be influenced', 'disappointments enforce traditional practices' and 'community health workers were popular'. A large majority adhered to state Western medical system. The Vedda communities who continued to practice traditional systems did so because they did not trust the western system. The trust seemed more for preventive health services. When properly educated, the traditional misconceptions were readily changed. When they felt disappointed with the Western system due to inefficiencies and at times cultural insensitiveness, they reverted back to their traditional practices. Direct and frequent engagement at community level seemed to make the public health workers more popular among Vedda communities than the curative sector workers.

Conclusion: The state health system has penetrated adequately in to the indigenous communities. However the curative sector has to be more culturally sensitive in delivering its services.

Key words: Health seeking behavior, indigenous Vedda Communities, traditional beliefs

A Study on use of Modern Technology and Social Media among Nursing Students at School of Nursing, Kandana

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Introduction: Social Media is widely used by the modern youth. Although they are mainly used for social networking, they can be used for education too. This would be a good solution for human resource shortages as well. Therefore it is important to assess the usage patterns of students so that educational programs can also be planned on Social Media.

Objective: To assess the use of modern technology and social media, the different types and the satisfaction of use among nursing students at Kandana Nursing School Sri Lanka.

Methods: Descriptive cross sectional study on conveniently selected 100 Diploma students was done using a self-administered questionnaire.

Results: 32% use Facebook, 14% whatsapp, 36% viber, 16%you tube and only. 2% for twitter. 80% had smart mobile phones, 56% used laptops, 10% used desktop and 3% used tabs. Social networking with friends were common. 54% had over 100 friends. 21% students had more friends online than in real life.73% daily logged on to the social media sites, 11% weekly and 11% rarely. 91% students have knowledge to handle power point software and the lease prevalent skill was (7%) video editing. 33% students did not have even a basic certificate on computer science. Only 3% used social media to communicate with teachers. Only 33% students thought that social media is not the best way to teach.

Conclusions: A wide range of social media was used quite frequently by the nursing students. Most are prepared to use it for educational purposes as well.

Key words: Social Media Learning, eLearning, Social Networking, Online Nursing Education

Acceptance of Social Media to Raise Awareness on Stroke in a Local Setting

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Introduction: Though scientifically validated social media interventions are done in the West, their usability has not been assessed for Sri Lankan populations. Since majority of the Sri Lankan Facebook users are aged 18-35 years, it is an ideal health education platform to reach target groups for stroke prevention.

Objectives: To customize internationally recognized educational material on strokes & to assess their usability among Sri Lankan social media users.

Methodology: Internationally recognized social media posts & tool kits (American Association of Neurological Surgeons, American Stroke Association) on stroke awareness & prevention were used to educate a selected target group of 420 Sri Lankan adults in a specific "Facebook group". Post interventional knowledge was assessed using an online questionnaire. A qualitative analysis was done on the comments received for the educational posts & the private messages.

Results: 60.4% of a 318 population were aged 18-25 years. 77.9% used Facebook as their preferred type of social media platform. 81.4% said using this Facebook group helped to gain new knowledge on strokes. 57.5% agreed that Facebook can be used to raise public awareness on strokes. 173 said they had very little prior knowledge on strokes; out of which 63 of them said they had improved after being added to the "group". Interactions between individuals in comments for the posts & the private messages asking for local context explanations, suggested that the posts were poorly suited locally.

Conclusion: With proper local customization, accredited social media posts could be used more efficiently for health promotion.

Keywords: Stroke Awareness, Social Media for Health Education, Social media campaign, Stroke prevention, Stroke tool kit, Social media and strokes, Facebook and Strokes

Public Awareness on Practices of Pre Hospital Stroke Care in Maldives and Sri Lanka

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Introduction: Stroke is the leading cause of death & morbidity in both Sri Lanka & the Maldives, standing at the second and third leading cause of death, respectively. Both are developing countries having limited tertiary care facilities with limited access public awareness on stroke recognition & pre hospital care is important to reduce morbidity & mortality.

Objectives: To analyze the public knowledge on stroke, its risk factors, pre hospital stroke care in Maldives and Sri Lanka & the differences between the two countries.

Methodology: A descriptive, cross sectional study using 852 conveniently selected Sri Lankans & Maldivians via an online self-administered questionnaire.

Results: Out of 852 total participants, 499 were Maldivian and 352 were Sri Lankan. 36.7% respondents had no previous experience on stroke. 24.5% had known family history and 35.5% knew a stroke patient who was not family. 545 said brain is the associated organ, while 532 also believed that heart too is affected by stroke. 138 participants have actively handled a patient undergoing a stroke and out of them only 58% said they knew the knowledge on acute management. Some respondents believed giving water (127), giving CPR (119) and giving a metal piece (79) should be done during a stroke attack. 180 said they knew the F.A.S.T acronym but only 40 of them were able to correctly choose the signs.

Conclusion: There are convenient amount of participants who are not aware about stroke. Many did not have personal experiences of stroke.

Keywords: Pre Hospital Stroke Care, FAST Sign, Thrombolytic therapy

Use of Mobile Applications for Assessment and Treatment purposes in Physiotherapy: A Systematic Review

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Introduction: Use of mobile phone applications is increasingly getting prevalent in health care. Physiotherapy being a discipline that is mostly practiced at a one to one basis and often at homes or away from hospital settings, the use of mobile applications could assist the therapist significantly. However, the applications need to be validated by research and accredited to be used reliably for patient care.

Objective: To assess the use of mobile phone applications in physiotherapy treatment and practices and the characteristics of the instances they were used.

Methods: A systematic review was done using online libraries like PubMed, Google Scholar. Key words like Physiotherapy, Mobile Applications, Mobile Phones, Treatment, Assessment, and Rehabilitation were used in different combinations. The articles where physiotherapists have not been actively involved were excluded.

Results: According to the researches chosen for this systematic review, three studies have assessed the feasibility and validity of smartphone applications used for teaching physical activity and gait training for patients with cystic fibrosis and Parkinson's disease respectively. The studies show significant feasibility and acceptance of the application functions by the participants. Another study on mobile app supported neuromuscular training for acute ankle injury patients shown to yield positive therapeutic outcomes and cost effective. However the case study on balance training for patients with dysautonomia poses a need further evaluations

Conclusions: This systematic review will provide recommendations on the use of mobile applications and communication technology in allied health care like in other public health domains to guide future intervention development and further research in this field.

Key words: Mobile Applications, mHealth, Physiotherapy assessment, Physiotherapy Treatment.

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Nurses Attitudes towards Minor's capacity to Consent: a Cross Sectional Study done in Sri Lanka

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Introduction: Gillick competence is a concept used to decide the capacity of a child (less than 16 years) to consent to medical treatment. This concept is not yet widely practiced in the world and is likely to depend on cultural and social norms of a society. Therefore it is important to assess the attitudes towards these aspects among nurses trained and practicing in a developing country like Sri Lanka.

Objectives: To assess the attitude of nurses towards the capacity of minors to consent and the factors that affect their attitude.

Method: A descriptive cross sectional study was conducted among 168 conveniently selected practicing nurses from various sectors, using a self-administered questionnaire.

Results: Out of the 168, 84 were with less than 5 years of work experience while 37.5% had more than 5 years. 53.6% (90) identified minors as those below 18 years and 14.3% identified as those below 10 years. 48 (28.6%) said that the consent of a child should never be considered in providing treatment. 67.8% stated that best decisions regarding a child's total health is the decisions taken by parents. Majority (52%) of experienced nurses thought so. 42 (25%) said they will never trust a decision by a minor. 46.4% (78) stated that children at the same have the same capacity to consent. 108 stated that Sri Lankan law is not updated enough with this regard.

Conclusion: Most of the nurses were unable to recognize minors of having a capacity to consent to their medical treatment.

Key words: Gillick Competency in Nurses, Consent in research, Minor's Capacity to consent, Nurses attitudes on consent

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Assessing knowledge and practices of Oral Hygiene among Primary School students in Gampaha District

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Introduction: Lack of knowledge about oral health is often the major problem which causes a number of risk factors for the health and well-being of the children. Therefore it is essential to encourage and guide the children to practice correct oral health habits.

Objective: To assess the condition of oral health among primary school students along with the treatments for oral conditions and how to maintain the oral health in a good condition.

Methods: Descriptive cross sectional study was done among conveniently selected 104 primary school students using a self-administered questionnaire.

Results: It was revealed that 62.1% of the respondents used tooth brushes and toothpaste for cleaning their teeth. 42.7% of the respondents brushed their teeth twice a day. Majority of them (74.8%) brushed their teeth in the morning and evening. 60.2% of the respondents meet the dentist only when they have a toothache. Majority of them (40.8%) had knowledge about the after effects of not cleaning teeth every day properly. 64.4% of the respondents were aware about the fact that how fizzy drinks affect dental health. 61.2% of the respondents claimed that their parents advise them to brush their teeth. 72.5% of the respondents were not aware about the self-medication for tooth aches. 60.2% of the respondents were aware about oral cancers.

Conclusion: Majority of the students had an elementary knowledge about oral hygiene habits. However, lack of knowledge about practices on oral health was recognized among primary school students in Gampaha District.

Key words: Knowledge, practice, oral hygiene, oral health

Awareness on Mobile Phone Radiation and correct practice among Young Adults in Colombo district, Sri Lanka

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Introduction: Long-term, heavy use of mobile phone causes harmful effects in humans. As cell phone emits radiation waves, they have been linked to development of brain tumors, genetic damage and other exposure-related conditions. Young adults who use mobile phones the most should be aware of the effects and correct practices regarding mobile phone radiation

Objective: To assess the awareness about mobile phone radiation and correct practice among young adults.

Methods: A descriptive cross sectional study was done on 150 young adults conveniently selected, who are 18-30 years of age using an online data collection form based on a questionnaire.

Results: Among the 300 participants 62.7 % of the young adults carried their mobile phones in the jean pockets. 73 % of the respondents place their phones on “vibrate” or “silent” mode. 91.3 % of the respondents said that they own a hands-free kit and among that 29.9 % said they use it for calls. Majority of the respondents (59.1 %) said that when charging they keep their phones inside the room. 49.3% of the participants reported that they keep their phones on the bed while sleeping. Most of participants (88.9%) possessed some knowledge about the adverse effects of mobile phone radiation (Brain damage, brain cancer, DNA damage, infertility and disturbed sleep cycles).

Conclusion: The finding of this study indicates that mobile phones play a big role in the daily life of young adults, and they do not follow correct practices regarding correct usage of mobile phones even though the awareness regarding mobile phones were satisfactory.

Key words: Mobile phones, mobile phone radiation, awareness, correct practice

Patients Perception on treatments and Standards of service delivery in Ayurveda practices at a traditional Ayurveda eye care center

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Introduction: Eighty percent of the world population uses traditional medicine for primary health care. In the twenty first century many Sri Lankans seek for Ayurveda Medical treatments even after getting treated from western hospitals. However patients' own preference and perception has been considered an important determinant to judge about the ultimate effectiveness of any medical intervention.

Objective: To describe the patients perception on the treatments received and to evaluate the standards of service delivery in Ayurveda practices at a typical Ayurveda eye care center.

Methodology: Mixed method research with a descriptive cross sectional study arm designed to assess the perception of the patients and qualitative study arm using an ethnographic approach (volunteers from University of new England Australia) to assess the standards of service delivery.

Results: According to Quantitative arm, Out of 141 patients 50.4% patients had cataract. 47% didn't get any improvement taking western medicine. 20% were taking Ayurveda and western medicine at the same time. 34% of patients were using spectacles while taking Ayurveda and out of them 74% of them have changed their lens after getting the treatment. 76% have taken the treatment continuously while 24% had breaks in between. 92% have got desired improvements and 78.3% of them rated more than 7 out of 10. According to the qualitative arm four themes were obtained: Good social networking, Poor hygiene, congested and high chances of errors in preparation of medicine.

Conclusion: When triangulate both the arms; most of the patient's perceptions are positive towards the treatment. But the standards are not that appreciative. This was an evidence based approach which demonstrates that characteristics of a native health system need to be evaluated and appreciated in its own context and not only through a generalized framework.

Keywords: Ayurveda, service and delivery, perception

Gender Equality and its Role in Leadership and Decision-making in Healthcare

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Introduction: Female potential remains untapped in today's world due to pervading gender disparities in many aspects of life, globally. Considered as a "one for all" goal among the 17 SDGs, one objective of gender equality highlights the need to improve female representation in all levels of decision-making in society. According to statistics, Sri Lankan women hold only 5% of parliament seats and 24% of management, legislator and senior positions.

Objective: Identify barriers and solutions for gender equality in (healthcare) leadership and decision-making roles.

Method: Qualitative study was conducted through 12 in-depth, semi-structured interviews of those with or without leadership and decision-making positions in healthcare.

Results: Thematic analysis formed five themes relating to barriers and solutions. There were three common themes in barriers to achieving leadership positions, which were leadership styles, myths and assumptions and work-life balance. While, in the context of solutions to gender equal representation, there were two identified themes which are mentors and training, personal drive and policy and process change. Furthermore, challenges in leadership were not limited to a specific gender while empowerment may be hindered by colleagues of the same gender. However, identification of issues of other genders were poor among all.

Conclusion: Themes identified suggests that barriers to equal representation in leadership persists in all genders. Therefore, to address these circumstances, unbiased and nondiscriminatory policies or processes should be promoted to dissipate gender disparity.

Key Words: Gender Equality, Leadership, Healthcare

A review of Public domain newspaper articles on Cases of Medical Negligence in Sri Lanka

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Introduction: Reports on medical negligence and errors in health care service delivery are very rare in Sri Lankan medical literature. Further, most of them do not reach to a point of a legal trial due to various reasons. Therefore the factors associated with those reported cases are also largely unknown.

Objective: To evaluate the practitioner and situation characteristics of incidents of medical negligence in Sri Lanka and their outcomes.

Methods: Newspaper articles archived on online public domains were searched using a suitable set of key words to retrieve reported cases of medical negligence. They were classified under practitioner, situation and outcomes related sub-themes.

Results: From the analysed 20 articles majority of the medical negligence cases have happened in the year 2013, (18.2%). 40.9% of the cases have happened in Colombo. Age groups vary from new borne child to 84 year old patient. 27.2% cases are due to doctors negligence another 22.7% were due to Nurses negligence. 18.1% due to surgeon's negligence. 72.7% of the victims' families have logged complaints and in all 20 cases none of the families were given any form of compensation.

Conclusions: Though negligence and unprofessional work ethic have seriously caused so much of harm for the patients. There are so many authorities for such cases to be brought about none of the authorities have taken a proper action against those to have breached the duty of care and neither does any compensation was given to the patient for the distress caused.

Key words: Medical negligence, Medico legal

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Stress Factors among final year Nursing students, College of Nursing, Kandana, Sri Lanka

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Introduction: Final year nursing students, have to participate clinical procedures, evaluations, exams & extracurricular activities with a high workload causing increase stress. Negative effects of stress are caused to decrease quality of life, cause depression, decrease self-esteem, physical illness & even cause suicide. Results of this study will help promote health & wellbeing in third year nursing students by reducing stress but it will also help them face a final year exams.

Objective: To assess the main factors that cause stress on 3rd year nursing student, to identify the extent to which they have adjusted to the nursing profession, to suggest coping mechanisms to manage stress.

Methods: Descriptive cross sectional study on student nurses in school of nursing Kandana Sample of 50 was taken out of 126 students through convenient sampling. Data were collected using a self-administered questionnaire and analyzed using descriptive statistics.

Results: Out of 50 participants, only 77.25% students are always stressful to significant changes when entering to the NTS. 26.18% students are always stressful for factors relevant to academic work. 24.6% of students are always stressful for factors relevant to resources. 26.44% of students are always stressful for factors relevant to clinical studies. 18.45 % of students are always stressful for factors relevant to various relationships. 19.5% of students are always stressful to other factors.

Conclusions: The study has clearly show that there is a significant association with stress due to changes when entering to the NTS, factors relevant to academic work, factors relevant to resources and clinical studies. The management need to be addressing the above issues in order to increase the well-being of the students and thereby increase the academic performance of the student.

Key words: Stress, Stressors

Knowledge and practices of Ventilator care bundles among the Intensive Care Nurses of The National hospital Sri Lanka, (2015)

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Introduction: Ventilator care bundle is a series of interventions related to ventilator care and it will achieve significant better outcomes when implement together. Nurses should adhere to practice this bundle. Without having proper knowledge on protocols and practices nurses cannot proceed this well and it influence quality of patient care and safety.

Objective: To describe the knowledge and practices of ventilator associated pneumonia care bundles among the intensive care nurses of National Hospital, Sri Lanka.

Methods: A descriptive cross sectional study was done on conveniently selected 240 intensive care nurses of the National Hospital of Sri Lanka (NHSL).

Results: Out 240 intensive care nurses (n=182)75.8% have studied about ventilator care bundle. The definition of the ventilator associated pneumonia was known only (n= 115) 47.9%. 75.8% (n= 182) had knowledge regarding elevation of the head. Regarding daily sedation vacations and assessment of readiness to extubate (n=94) 39.1% were known. (n=47) 19.6% had Knowledge regarding Peptic ulcer disease prophylaxis. (n=54) 22.5% had knowledge regarding Deep vein thrombosis (DVT) prophylaxis. Knowledge regarding daily oral care with chlorhexidine were (n=165) 68.7%. In study group generally 90% of the nurses follow aseptic methods while performing suction care.

Conclusions: Majority of the nurses demonstrated unsatisfactory awareness on care bundles but in practices they follow aseptic methods and equipment while performing suction care in high percentage.

Key words: Ventilator associated pneumonia care bundles, Knowledge, Practices.

Assessment of the Health Culture Disparity for Maldivians in Sri Lanka

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Introduction: Medical tourism is where people go to another country to seek medical interventions. Sri Lanka is one good example for medical tourism. Majority of people choose this due to the low cost of health care service and they strongly believe that there are qualified doctors in Sri Lanka. But culturally, we need to assess to what extent their expectations are being met.

Objective: To assess the attitudes of Maldivian patients living in Sri Lanka to see if their cultural needs are being met.

Methods: A descriptive thematic study on 20 conveniently selected Maldivian patients via a focused group discussion

Results: According to the patients interviewed, all preferred Sri Lanka over Maldives for medical purposes because treatment is cost effective, and they get better treatment with better facilities. 80% of the Maldivians import food from Maldives, 90% had no religious issues being here. But only 50% felt safe during their stay in the hospital. 75% agreed that doctors were responsible and friendly while 60% feel that nurses could be more responsible and friendly. 83% have no issues with transport however 22% found it difficult in communication while other 78% didn't have issues with the communication.

Conclusions: Therefore, it can be said that the cultural requirements of the Maldivians are met being to a certain extent, yet there is room for improvement.

Key words: Medical tourism, Cultural disparity, Sri Lanka, Maldives

Rehabilitation of a Complicated Case with Multiple Lower Limb Fractures-A Case Study

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Introduction: Road traffic accidents are the significant cause for injuries which leads to lifelong disabilities. The health care industry plays the main role in managing these injuries. Predominantly Physiotherapists take place in rehabilitating these individuals, in order to help them continue their daily routine.

Case report: A 33 year old male medical officer was transferred to the accident service of a Hospital in Sri Lanka following a road traffic accident. He presented with a series of injuries including close fracture of right femur, dislocation of right knee with popliteal artery damage, fracture of the skull bone with a small extra Dural hemorrhage, and other minor injuries. Therefore he had undergone several surgical procedures including, Open reduction and internal fixation, Exploration of popliteal artery and reduction of dislocation and lateral fasciotomy. During the follow up it appeared that the right femur fracture is not healing and had done the surgery again. The old plate was removed and new metal plate was inserted with a bone grafting. Though, he has recovered from a very major life and limb threatening injury, he is left with a short, scarred right lower limb with a very stiff right knee which directly affects his career and daily routine due to improper Physiotherapy management.

Discussion: This case is about a series of serious lower limb injuries and complications of possibly neglected immediate post-operative physiotherapy management. Though he is continuing rehabilitation after 6 years of injury there are many contraindications and precautions for his condition which is now reducing the treatment effect.

Key Words: Road Traffic Accidents, Multiple Lower Limb Fractures, Physiotherapy Management.

Assessment of knowledge and practices on Hygiene of Sub-urban Secondary School Students in Gampaha District and their Sanitation Facilities

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Introduction: Poor hygiene and sanitation conditions are the major risk factors for water-related diseases that affect the health and well-being of children. So it is essential to recognize this age group and encourage the students to practice personal hygiene and sanitation.

Objectives: To identify the hygiene and sanitation facilities among secondary schools and to assess their knowledge and practices about hygiene and sanitation.

Methodology: Descriptive cross sectional quantitative study was done among conveniently selected 220 students by using self-administered questionnaire.

Results: Out of 220 respondents, 56.5% stated that well water is the major source of water. 63.5% of the students stated that they bring water from their home itself for consumption. Squatted pan is the major type of lavatory which was available in the schools (97.5%). 79% of the students stated that they neither had soap nor hand washing liquid inside the toilet. 93.5% of the students have heard about water-related diseases while 76% of the students had the knowledge about how to prevent getting infected from these diseases. Only 48.5% of the students have learnt about hygiene and sanitation from their schools.

Conclusion: Majority of the students had an elementary knowledge about water hygiene and sanitation and lack of practices regarding sanitation was recognized among the students. It was also revealed that the sanitation facilities in the schools are unsatisfactory.

Key Words: Water Hygiene, Sanitation, Knowledge, Attitude, Practices

Assessment of Work Related Diseases and Risk Factors among Gem Miners in Sri Lanka

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Introduction: Gem industry has traditionally been drawing considerable amounts of foreign revenue to Sri Lanka in which miners use traditional methods and means of Gem mining underground. These methods include digging mines both vertically and underground horizontally, which puts them at various health risks.

Objectives: To assess cardiorespiratory diseases, skin diseases, musculoskeletal conditions and injuries caused due to work related and traumatic events.

Method: A mixed method study was performed on 56 Gem miners in Rathnapura and Pelmadulla. The quantitative part was a descriptive cross sectional study. Data collection involved an interviewer-administered questionnaire, clinical measurements, peak expiratory flow meter and the use of mobile apps for assessing oxygen saturation and environmental temperature. The qualitative part, included a focused group discussion.

Results: 44.6 % of the respondents were aged 50 years and above while 17.9 % stated 5 years of working experience. 75 % of the miners do not smoke. 76.8 % of the respondents admitted that they had difficulty in breathing while in the mine, 25 % felt faintish, 33.9% of the respondents complained of body aches when working under the mine and 14.3% of the had skin irritations. 26.8% had experienced slips and falls inside the mine while 10.7% of respondents had fractures and dislocations. The mean peak expiratory flow rate was 246.70 per second. On average the oxygen saturation dropped by 3-4 % when a non-mining individual climbed down a mine.

Conclusion: The traditional mining methods did seem to put the miners at risk of musculoskeletal issues. However their cardiorespiratory parameters seemed to be normal.

Key words: Gem Miners Sri Lanka, Work related diseases,

PP50

Assessment of the Knowledge of Young Mothers Regarding Febrile Fits

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Introduction: Febrile seizures, sometimes called febrile convulsions or fits, are fits that can occur when a child has a temperature greater than 100.4°F (38°C). They are relatively common and, in most cases, are not serious. Around one in 20 children will have at least one febrile seizure at some point. Though the global and local guidelines provide extensive recommendations; the actual knowledge of the urban mothers regarding the same remains unknown.

Objectives: To identify the knowledge level among urban Sri Lankan adult females regarding Febrile fits.

Methodology: A descriptive, cross-sectional study was done 160 conveniently selected individuals using an interviewer administered questionnaire.

Results: Out of a population of 160, majority of the mothers were aged between 30-40 years. 68.8% did know what a febrile fit is, yet 75% said that it can happen only to a child with some other illness. 71% said that the fit will mostly occur within the first hour of fever and 100% said that it will occur at the height of fever. 90.3% said that medical attention should be sought only when the child has a fit for the first time. 46.9% said that the child should be rushed to the emergency only when the fever lasts for more than 5 days and not when the seizure lasts more than 5 minutes. Majority were able to correctly identify the signs and symptoms of a febrile fit. 96.9% and 81.3% said they would give paracetamol and a sponge bath respectively to reduce the fever. On the other hand, another 68.8% did say they would give a homemade remedy instead. Only 46.9% believed that a febrile fit is preventable.

Conclusion: Therefore, it can be said that there is a disparity between the knowledge that the mothers have, with the application of said knowledge.

Keywords: Febrile fits, Knowledge, Young Mothers

Awareness on Cost Effective way of producing Compost and different composting methods used among people who are living in Gampaha District

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Introduction: Compost method is an inexpensive and effective soil conditioner that recycles organic waste materials. It is relatively simple to manage and can be carried out on a wide range of scales in outdoor environment and in almost any geographic location. There are four main methods that we can produce compost. Barrel method, Heap method, Pit method and Cage method. The effectiveness of the composting process is depends upon the environmental conditions present within the composting system such as oxygen, temperature, moisture, material disturbance, organic matter and the size and activity of microbial populations. Composting is not a mysterious or complicated process. Natural recycling (composting) occurs on a continuous basis in the natural environment. Organic matter is metabolized by microorganisms and consumed by invertebrates. The resulting nutrients are returned to the soil to support plant growth.

Objectives: To assess awareness of the cost effective way of producing compost and compost methods. The way of reducing solid waste management.

Methodology: A descriptive study was done by conveniently selected 100 participants from Gampaha district.

Results: Majority of the participants (76.5%) tried to produce compost. 52.1% of people were producing compost by using barrel method. 60.8% were aware about compost methods. 27.1% were not using compost method because they do not have enough time and 14.6% do not have enough space. 76% were interested to have more information about make better compost. 45% stated that composting takes up a lot of time. 35% mentioned composting takes lot of effort. 38% disagreed that composting demands a high degree of technical knowledge. 42% disagreed that composting requires a lot of space.

Conclusion: The awareness of producing compost methods among population was good. However, the knowledge on cost effective way of producing compost among population was very poor.

Key words: Compost, Cost effective, Awareness

Risk of Noise Induced Hearing Loss in Colombo night clubs

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Introduction: Excessive sound levels can cause Noise Induced Hearing Loss (NIHL). The night clubs in Colombo that play loud music have not been studied with regard to the risk for NIHL. Various public health organizations make recommendations for safe sound levels which are applicable to the general public, in this case who are the night club clients. International Labor Organization and similar bodies make recommendations that are applicable for the employees, in this case the club employees.

Objectives: To evaluate the sound intensity levels of night clubs in Colombo and to assess the prevalence of those above risk levels for NIHL.

Method: A Descriptive study was done on 35 judgmentally selected popular night clubs in Colombo City limits. Sound levels were tested using ‘Armstrong Sound level meter’ mobile app.

Results: Valid results were analyzed from 31 locations. The Average sound levels were highest near the DJ (94.5dBA), near the bar it was 88.9dBA and 88.3dBA in the other areas on average. When considering the recommended safe level of 85dBA, 23 clubs had average Sound level going beyond that and in 26, the maximum level went beyond that. There were 4 clubs where the maximum sound level went beyond 100dBA, which is not safe for shorter exposures like even 90 minutes.

Conclusion: Vast majority of the clubs had dangerous levels of sound risking its clients and specially employees with NIHL

Key words: Night Clubs, Hearing loss, Sound intensity

OL1

Issues Related to Presentation of Cataract Patients to the Eye Unit in Teaching

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Introduction: Although the cataract is the leading cause for blindness and low vision worldwide and in Sri Lanka, it was identified that cataract patients' presentation for treatment at the eye unit was irregular or delayed most of the time. As the importance of proper treatment is emphasised by almost every research, the objective of the study was to assess issues related to presentation of cataract patients to the eye unit, teaching hospital, Kandy, Sri Lanka.

Method: The study setting was the Eye unit in Kandy General/ Teaching Hospital, which serves population from Kandy, Mathale and Nuwaraeliya districts. Approximately 8000 cataract surgeries are performed in eye unit. The study design includes a descriptive, cross-sectional study which consists of quantitative phase. Population consists of cataract patients present to the eye unit in teaching hospital, Kandy. A convenient sample (n=132 patients) was selected from patients who attend for cataract surgery to the eye unit. The data was gathered from patients who were diagnosed as having cataract and admitted for treatment.

Results: Findings of the research were that majority of the patients were delayed for presenting for eye screening. The major issues regarding presentation for treatment are lack of knowledge and financial difficulties. Fear of treatment and demography has no proper relationship with presentation for treatment.

Suggestions: Suggestions of the research are to educate patients by staff regarding the importance of presentation for treatment early as it reduces misbeliefs regarding treatment.

Key words: Cataract, Eye Unit, Blind, Vision

OL2

Effectiveness of Electrotherapy Modalities for Adhesive Capsulitis: A Systematic Review

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Introduction: Adhesive capsulitis is a debilitating condition, characterised by progressive loss of shoulder movement with spontaneous and gradually worsening shoulder pain and loss of independence. Around 30% of the physiotherapists add electrotherapy to their treatment programme for treating adhesive capsulitis, mostly used electrotherapy modalities being TENS, SWD, UST and IFT. Even though there are some studies done focusing on the effectiveness of electrotherapy modalities for different conditions, the results have been inconclusive and not investigated in-depth.

Objective: To systematically appraise the current evidence of the mostly-used electrotherapy modalities and their effects on reducing pain and improving shoulder function and ROM in patients with adhesive capsulitis.

Methods: Multiple electronic databases (EBSCO, AMED, CINAHL, MEDLINE, SPORTDiscuss, PEDro, Scopus and Cochrane Library) were searched for research on electrotherapy for adhesive capsulitis. OpenSIGLE and Google Scholar have been searched for grey literature and hand-searching has also been done. Different key words and search strategies were used to make the search complete and rigorous.

Results: Six RCTs were included in the review. Quality of the studies were measured using PEDro scale and the studies were of moderate-to-high quality. One study used TENS and UST for acute and chronic adhesive capsulitis respectively. Other studies looked at SWD and IFT, two each and one further study looked at UST. Findings showed that UST and TENS are more effective than other two modalities for all outcomes. However, firm conclusions regarding the effectiveness could not be reached as a result of heterogeneity of the co-interventions used and processes and timings of outcome measures.

Conclusion: Addition of an electrotherapy modality (TENS, US, SWD or IFT) to the usual rehabilitation programme for adhesive capsulitis can help in reducing pain and improving function and ranges of motion. Further research is needed to determine the effectiveness of those electrotherapy modalities when delivered alone.

Key words: Electrotherapy, TENS, ultrasound, shortwave, IFT, adhesive capsulitis, frozen shoulder, effectiveness

OL3

The Challenges of Implementing Open and Distance Learning (ODL) in Higher Nursing Education - Literature Review

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Introduction: Distance education, a structured learning in which the student and instructor are separated by time and place, is currently the fastest growing form of domestic and international education. From the perspective of higher nursing education, it must be made accessible, affordable and flexible to allow the nurse to cope with the demands and pressure of busy work and family commitments.

Objective: To identify challenging factors that influence the implementation of ODL in higher nursing education, and to determine to what extent does the learning outcomes achieved by open and distance education differ from conventional education.

Method: A range of 12 research studies were analyzed (2008 – 2015) with the majority were qualitative research using interview and survey techniques.

Result: It seems to have consensus view as the authors had identified several significant and challenging factors emerged from different aspects of ODL in higher nursing education; including support system from students' workplaces, technological and infrastructure organization, communication system, staffing, and creating a sense of community among students. However, substantially, it supports the notion of distance education and conventional education are equally effective in teaching and learning nursing; and that distance learners and campus learners have no significant different in their learning outcomes.

Conclusion: The evidences collated from the review demonstrate several challenging factors materialized from different aspects of higher nursing education. Overall, this review of articles supports the premise that there is no difference between ODL and traditional campus-based teaching for nurses in terms of efficiency, knowledge attainment and skill performance.

Key Words: Open Distance Learning, Higher Nursing Education

OL4

Exercise Interventions for Balance in people with Diabetic Peripheral Neuropathy to reduce falls: a systematic review

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Introduction: Diabetes with its high incidence has become one of the fastest growing health threats. Diabetes Peripheral Neuropathy (DPN) is one of the most common complications of diabetes. Presence of DPN affects a person's quality of life in many ways. One of the most debilitating factors of DPN is impaired balance, thus increasing the rate of falls. Exercise interventions have been evidenced to benefit other populations in this regard. Therefore, the purpose of this review is to assess its effectiveness in this population.

Objectives: To assess the effectiveness of exercise interventions on people with DPN in improving their balance using a review approach.

Methods: A systematic review was done through the results of six electronic-database searches. The search strategies were designed to yield all appropriate results. Articles obtained were screened for eligibility and the screening process happened in three stages as explained by the PRISMA flow diagram. Quality of the final selected were assessed using the Downs and Black assessment tool.

Results: Nine articles met the review criteria and were included in the study. Two studies with high quality were identified, where all the others were studies with average quality. Eight out of the nine studies reported exercise was an effective treatment. No major adverse events were noted in any of the studies. Exercise interventions varied with combinations of balance, strength, endurance training or more balance specific interventions like WBV, BSS and interactive sensor based activities. Since the outcome measures had a wide variation, no further conclusions regarding their relative effectiveness could be drawn.

Conclusion: Exercise interventions can be suggested as an effective treatment in improving balance in diabetic peripheral neuropathy patients. Further research is needed to identify the best type, frequency, duration and its long term effects.

Key words: Diabetes Peripheral Neuropathy,

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