

hypothesis

empirical



experiment

THE UNIVERSITY OF THE WEST INDIES
FACULTY OF MEDICAL SCIENCES
DEPARTMENT OF PARA-CLINICAL SCIENCES
PUBLIC HEALTH & PRIMARY CARE UNIT

qualitative

review

science

methodology

study

experiment

theoretical

19th ANNUAL

MEDICAL STUDENTS'
research problem

theoretical

data

RESEARCH DAY

discovery

experiment

Thursday 29th September, 2016

logic

discovery

scientific

findings

Amphitheatres A & B

Eric Williams' Medical Sciences Complex, Mt. Hope

8:00 am – 4.00 pm

results

statistic

statistic

testing

theoretical

analysis

Foreword

The 19th Annual Medical Students' Research Day presents an opportunity to the University community and stakeholders to appreciate the work medical and dental students have undertaken as part of the Public Health curriculum during the second year of their medical and dental programmes.

This supplement presents the abstracts from the research undertaken by thirty-four groups of Year 2 Medical and Dental students. The research projects undertaken have relevance to Public Health Medicine. Students are advised to share their findings with the relevant stakeholders to inform and improve health policy and practice where applicable.

The Unit of Public Health and Primary Care would like to acknowledge the Head of Department, Dr Gershwin Davis, supervisors, the Medical Sciences Library, the Campus Ethics Committee, the Centre for Medical Sciences Education and the Dean of the Faculty - Professor Terence Seemungal, for their commitment to the students and the programme.

The Knowledge, Attitude and Practices of E-cigarettes among Young Adults between the Ages of 18 to 40 years in Trinidad.

The Research League: S De Gannes, M Desaine, R Dhandooolal, A Dhanooolal, T Dorsett, S Duncombe, D Dukhoo, D Dupraj, L Pinto Pereira, S Sakhamuri.

Background: E-cigarettes are perceived to provide the real smoking experience without posing adverse health effects to its users. Since e-cigarettes are non-tobacco forms of nicotine, they are not covered under the Tobacco Control Act in Trinidad and Tobago. Currently, scientists are oblivious to the long-term side effect of e-cigarettes, but there have been studies that have highlighted some of its danger. This study will investigate the knowledge, attitude and practices of e-cigarettes among young adults between the ages of 18 to 40 years in Trinidad.

Objective: The objectives of this study are: (i) To evaluate the knowledge of e-cigarettes among young adults between the ages of 18 to 40, (ii) To assess the attitudes towards the e-cigarettes among young adults between the ages of 18 to 40 and (iii) To determine the practices of e-cigarettes among young adults between the ages of 18 to 40.

Method: A cross-sectional observational study design among young adults between the ages of 18 to 40 was used. A questionnaire was used to collect data from a population sample size of 795 individuals. Statistical analysis of the data included frequencies, chi-square test, independent T sample test and one -way ANOVA test.

Results: The data suggest current smokers, ex-smokers and male users are more likely to use e-cigarettes. Notably, e-cigarettes are primarily used to replace regular cigarettes. Majority of the participants agreed that e-cigarettes were safer than regular cigarettes but knew they were still dangerous to one's health. There was a consensus that laws should be established to regulate the use of e-cigarettes. Furthermore, those who use e-cigarettes mistakenly thought that e-cigarettes did not contain other harmful substances.

Conclusion: The use of e-cigarettes is mainly confined to current and former tobacco cigarette users. Presently, e-cigarettes are being utilized as a substitute to tobacco cigarettes because most individuals believe that it is safer than regular cigarettes. As its popularity grows, it is recommended that the government create laws to regulate its use. In addition, majority of the participants did not know facts about e-cigarettes thus education is needed.

The Use of Echocardiography to Estimate the Prevalence of Pulmonary Hypertension (PAH) in Trinidad.

The Tensioners: A Ali, V Ragoonath, A Wildman, J Willie, A Wilson, D Wong, R Wright, C Young, R Ali.

Background: Trinidad and Tobago is ranked 14th in the world for deaths related to hypertension according to the WHO (2014). Pulmonary hypertension (PAH), is assessed by an echocardiogram, which is described by an increased mean pulmonary artery pressure (MPAP) greater than 25mm when resting. It can be idiopathic in aetiology or it can be secondary, caused by another condition like emphysema or chronic bronchitis.

Objective: (i). To assess the proportion of patients presenting with right heart aetiologies based that also suffer from suspected pulmonary hypertension based on the echocardiogram data. (ii) To study the patient demographics and indications for pulmonary hypertension using echocardiography.

Method: A descriptive cross-sectional study was completed, comprising of all patients who underwent an echocardiogram at EWMSC during the calendar years 2014 and 2015 and possessed results pertinent to our study. A total of 316 valid echocardiograms were selected.

Results: Data was collected and analysed using IBM SPSS Statistics software. Out of the 316 patients, 63.6% were estimated to have some form of PAH, with 37% being the highest population; these had a MPAP between 25-40mmHg. Females were found have a slightly higher percentage of individuals with PAH compared to males (65.1% vs 61.4%).

The modal age group of all cases was 60-69. A positive correlation exists between age and the incidence of PAH ($p < 0.01$). RV dilation was found to be positively correlated with PAH, and 67.4% of all persons with severe PAH (> 55 mmHg) when compared to 32.6% for those without. Right heart ejection fraction was negatively correlated with MPAP; a patient with a normal EF% would most likely have MPAP < 25 mmHg. Negative correlation also exists between PAH and TAPSE. Finally, patients who possessed underlying morbidities contained a higher incidence of PAH than those without (71.8% vs 40.2%).

Conclusion: The data collected gave evidence to conclude that patients who did not possess significant heart dysfunction (determined by echocardiography) had a lower incidence of PAH when compared to those patients who had relatively abnormal echocardiograms. Patients with an underlying morbidity accounted for 100% of the patients with severe PAH. This study also concluded that with an increase in age there is an increasing predisposition to be diagnosed with PAH as well as females being more likely to be diagnosed with PAH as compared to males belonging to the same category.

3

Role of Carcinoembryonic Antigen and Histopathological Assessment in Colorectal Carcinomas.

Histopath Heroes: S Arjoon-Singh, M Armbrister, J Ashman, K Ashton, T Augustine, N Autar, N Aziz, V Bachan, S Nayak, S Umakanthan.

Background: Colorectal cancer is ranked 4th amongst the list of 17 cancers that are the main causes of death in Trinidad and Tobago. Approximately two-thirds of the numbers of people who develop colorectal cancers in Trinidad and Tobago die. However colorectal cancer is preventable if it is detected early and completely removed before the pre-cancerous lesions metastasize to other parts of the body. Factors such as age, ethnicity, diet, and family history all play a role in colorectal cancer epidemiology and thus, will be assessed in this study.

Objective: The purpose of this study is to determine the importance of CEA values and the histopathological changes that occur in patients aged 30 and above that are diagnosed with colorectal carcinomas.

This research also aims to evaluate the role of dietary patterns and family history in the development of colorectal carcinomas.

Method: Patients were chosen from Mt Hope hospital to identify prospective candidates for this study. Histopathology reports were requested, along with clinical records containing information pertaining to our study such as CEA values, diet, lifestyle patterns as well as family history. All of the collected information was logged using data collection sheets and analyzed to infer trends between disease and risk factors.

Results: Of 63 colorectal cancer patients, females (57.2%) were found to develop colorectal cancer more than males (42.8%) in Trinidad and Tobago, and 66.7% of patients were of African ethnicity. The most common age range patients were first diagnosed at, was between the ages of 51-70 years (69.8%). The majority of patients were found to be on a diet low in dietary fibre, fruits, vegetables, and whole grains throughout the week, but also included foods high in fats and oils. Red meat was consumed more than three times per week in 41.3% of patients. Astonishingly, 92.3% participated in little to no exercise, 84.6% consumed alcohol at least twice a week, and 44.2% of the patients were inclusive of being frequently exposed to smoke whether they be a smoker, or through their environment. These diet and lifestyle patterns suggest an increased risk of developing adenomas and colorectal carcinomas. With regards to the 14 acquired CEA values, 78.6% of the patients were found to be at a level greater than 5 ng/ml, while 21.4% had normal CEA values (< 5 ng/mL). Of the patient sample, 9.62% had a family history of specifically colorectal cancer, with 17.3% of the sample population indicating a family history of other forms of cancer, overall increasing their likelihood of developing cancer themselves. Examination of lab reports indicated that the sigmoid colon was the most common site for the development of the initial tumor (30% of cases), while the transverse colon was the least common site involved. The majority of the cancers were well differentiated, accounting for 90.4% of all cancers observed. The TNM method was applied for data regarding cancer staging, with 51.9% of cancers showing no regional lymph node involvement, termed as "N0" value. T3 cancers accounted for 42.3%, indicating marked invasion of underlying tissue in these instances of cancer.

Conclusion: The results suggest that attention should be given to educating women especially of African ethnicity about colorectal cancer to raise awareness and lead to prevention. Both men and women should take steps to participate in regular screening, especially those of African origin who are above 50 years of age and have a family history of colorectal or any form of cancer, as they may be at risk of developing colorectal cancer. More research into the effect of diet and risks of developing colorectal cancer should be warranted in Trinidad and Tobago, where dietary patterns and lifestyle habits, such as regular alcohol consumption, increase the likelihood of developing cancer.

4

Investigating the Risk of Incident Diabetes among Primary Care Patients Treated with Simvastatin in the NCRHA, Trinidad.

Diabetes Avengers: YS Chen, A Choucoutou, C Choya, SY Cooke, C Crawford, RM Cunningham, A Dan, DM Dass, R Khan.

Background:

The World Health Organization (WHO) reported that in 2008, global prevalence of raised cholesterol among adults was 39%. In Trinidad and Tobago, as of 2015 the prevalence of diabetes in adults was 14.5 %. As there was no research conducted investigating the link between increased risk of incident diabetes and Statin use using a local and/or regional population, literature on the topic was restricted to a few countries in Europe, the United Kingdom and the United States. As statins are among the most prescribed drugs to manage the cholesterol levels of many patients around the globe, the question is asked, is there an association of increased incident Diabetes Mellitus in the local statin user population?

Objective: (i) To collect and analyze data on local patients who developed Diabetes Mellitus post Simvastatin administration and (ii) To possibly identify a causal relationship between the use of Simvastatin and the subsequent development of diabetes mellitus.

Method: A retrospective descriptive case-series study design was applied to 384 conveniently sampled patient medical records from various primary health care centres during the period of February 2016 to May 2016. Information from the patient files were then recorded using a systematic data extraction tool and with application of the exclusion and inclusion criteria. The major inclusion criteria were non-diabetic patients who were compliant with daily simvastatin for a minimum period of one year. The risk of incident Diabetes Mellitus was calculated, using SPSS version 20.0. Chi-square testing was performed to determine any association between new onset Diabetes mellitus and statin use.

Results: 207 patients became diabetic during the study period translating into a 53.9% risk of incident Diabetes Mellitus ($\chi^2 = 2.3438, p = 0.1258$). A sub-group analysis of 133 subjects was performed to eliminate the confounders of family history of diabetes and age greater than 60 years. In this sub-group 50 incident diabetics (37%) were identified and a statistically significant association was observed $\chi^2 = 8.118$ with a $p=0.0042$. Increased Fasting Blood Sugar and HbA1c levels were also observed amongst incident diabetics.

Conclusion: In this population Simvastatin use is associated with a 53.9% increased risk of development of new-onset Diabetes Mellitus ($\chi^2 2.3438, p = 0.1258$). A statistically significant association was attained after sub group analysis involving patients less than 60 years old and without a family history of diabetes with an incident risk of 37%. Linear regression revealed that this association was dose dependent with a corresponding 32% higher risk in patients taking 40 mg ($p=0.001$) of simvastatin daily compared to 20 mg of simvastatin ($p=0.094$). Linear regression also revealed that there was significant statistical association between onset of diabetes mellitus and duration of statin therapy as $p=0.006$. The increased risk of incident of Diabetes Mellitus conferred by higher doses of simvastatin warrant consideration by physicians considering therapies for dyslipidemia in patients with multiple risk factors for Diabetes Mellitus.

Assessment of Patients' Perception of Implementation of the Patient's Charter of Rights and Obligations in Trinidad.

The Justice League: R Spann, A Spencer, R Sookdeo, A Sookhoo, A Sooknanan, S Sookraj, N Sookoo, R Swain, B Sa.

Background: The Patient Charter of Rights and Obligations (PCRO) was originally published in 1991 in the United Kingdom and was introduced in Trinidad and Tobago in 2002 to increase the quality of healthcare to citizens. It is important to assess if this document is being implemented.

Objective: To (i) assess distribution of selected sample with regard to knowledge about the PCRO; examine the relationship between patient characteristics and level of awareness of the PCRO (ii) evaluate the extent to which the PCRO is implemented based on patients' perspective (iii) examine the extent to which patients have fulfilled their responsibilities from the PCRO.

Method: Four hundred questionnaires, answered by outpatients from the four main Regional Health Authorities were analysed. Patients were over the age of 18 and English speaking nationals of Trinidad and Tobago. The questionnaire consisted of 29 closed response questions (excluding demographics) using a Likert scale as the response option.

Results: 64% of patients was unaware of the existence of the PCRO and their demographics was instrumental in showing the extent to which the public is aware of the PCRO. It was also evident that patients claimed that most of their rights were unfortunately 'sometimes implemented'.

Conclusion: In conclusion the study confirmed the majority of the public were unaware of the PCRO. Education is positively linked to awareness levels while socio-economic status is negatively related to awareness of the Charter and more educational programs should be done.

Epidemiologic Insight into Trinidad's Awareness and Prevention of Heart disease: The EPITAPH Study - A Mount Hope Cardiovascular KAP Survey.

EPITAPH: S Baksh, K Balbosa, S Baldeo, S Balkaran, P Bethel, K Bhagaloo, N Seecheran.

Background: A recent explosion in the amount of cardiovascular risk has swept across the globe. There has been a vast increase in the prevalence of high blood pressure as well as atherosclerosis, which has resulted in cardiovascular strain in terms of attendant death, economic and social cost and also disabilities. Cardiovascular disease represents a potentially enormous health and socioeconomic burden in Trinidad & Tobago. Hence, this study will assess the level of knowledge, attitude, awareness and practices of cardiovascular disease in patients of the Cardiology Outpatient Clinic (COC) at Eric Williams Medical Sciences Complex, Mt. Hope, Trinidad and Tobago (EWMSC).

Objective: To investigate the knowledge, attitude and practices of cardiovascular disease in patients of the Cardiology Outpatient Clinic at the Eric Williams Medical Sciences Complex, Mt. Hope, Trinidad and Tobago.

Method: A descriptive, cross-sectional survey was carried out in Trinidad and Tobago, a Caribbean country with a size of ~5000 km² and a population of approximately 1.7 million people. Patients were informed of the purpose of the research project and had the option of rejecting participation without fear of reprisal. Data was collected via medical student administered questionnaires. The patients who agreed to participate were administered the questionnaires, having been assured of confidentiality and given the investigators written consent. A sample size of 390 was attained, after leaving out the questionnaires which were incomplete.

Results: A total of 420 individuals were asked to participate, of whom, 390 willingly agreed, an approximately 93% response rate. The domain of risk factors had the most correct responses (69.4%), whereas medical knowledge reflected the least correct (57.7%) responses. The remaining domains of diet, epidemiology and symptoms scored within the mid-60% range. The least scored question was a medical knowledge question with only 24.4% correct responses. The highest education category (tertiary and above) scored higher than the lowest category (no formal schooling) but only by 6.6%. The association between high level of knowledge and income was nearly significant OR 2.029 (0.949-4.338) (p = .068).

The knowledge about CVD in men and women was almost equivalent. There were no significant associations when ethnicity and level of knowledge were compared. Our study population demonstrated moderate overall knowledge of the causes of CVD.

Conclusion: This study is the first of its kind to definitively assess the level of CVD knowledge among a cardiology outpatient population in Trinidad and Tobago. Although respondents displayed a modest level of knowledge, key deficiencies were identified which could potentially translate into suboptimal clinical outcomes. The study underscores the paramount importance of establishing comprehensive educational interventions to increase overall CVD literacy in Trinidad and Tobago.

7

The Incidence and Preventable Risk Factors of Mortality due to Pulmonary Embolism in Trinidad and Tobago.

The Clot Busters: *A La Caille, A Lalla, A Leo, S Levia, L Leona, G Lingo, R Lutchman, T Mackey, M Akhilesh, AVC Rao.*

Background: Pulmonary Embolism (PE) is a relatively common cause of death around the globe and even in Trinidad and Tobago, where it was found to contribute to 10% of autopsy cases (Daisley, 1990). However, despite the high number of deaths attributed to the disease in Trinidad and Tobago, the awareness of PE and its preventable risk factors is low among the people of the nation. This mostly fatal disease can be prevented if the proper precautionary measures are taken in order to desist the development of these risk factors the major one being Deep Vein Thrombosis (DVT) which can be highly attributed to a disease prevalent in the nation; Cardiovascular Disease (CVD). In addition to this, some of the other main risk factors include cancer, orthopedic surgeries (hip and knee replacements), prolonged immobility, obesity, smoking and the use of oral contraceptives by women.

Objective: The purpose of this project was to evaluate the incidence and risk factors of mortality due to PE by executing an autopsy study at a tertiary hospital in Trinidad and Tobago; The Eric Williams' Medical Sciences Complex, Mt. Hope.

Method: The study was of a retrospective nature. Data was gathered from autopsy reports at the Anatomic Pathology Mortuary Unit at the Eric Williams' Medical Sciences Complex. Files from patients with the cause of death as PE from years 2014 and 2015 were used. Their ages ranged from 24 to 94. A total of 157 cases, with 81 reports from 2014 and 76 from 2015 were analysed.

Results: Many correlations were made between the results gathered and the previous research done on the topic. Foremost, it was found that for the two year period, PE accounted for 3.2% of mortality. The incidence for the years 2014 and 2015 were calculated as 0.039 and 0.026 respectively. The incidence for both years was calculated as 0.032. The 61-80 age group had the largest group of patients (40%) whose death was due to PTE. Two major manageable risk factors uncovered were the presence of Diabetes and Hypertension. This finding was unique to our study, as it was not a common major factor in any of the reference articles. Additional risk factors that were found included DVT, patients who had recent surgery and respiratory illness. Furthermore, most of the symptoms were cohesive with those researched, for instance shortness of breath, which was the most common, along with chest pain, limb pain, and unresponsiveness. In terms of diagnosis, it could be said that the more recent and accurate means of diagnosing PE such as using Biomarkers and D-dimers are not undertaken. The main technique utilized is taking blood tests. Apart from this, x-rays and other specialized techniques are done rarely. Therefore, it can be said we have fallen short in this category, as being able to diagnose PTE early can definitely reduce the incidence and the number of deaths that result from it.

Conclusion: We look forward to covering our objectives of this study undertaken, as it can be useful to Public Health and the improvement of lives of citizens in Trinidad and Tobago since the major risk factors of the disease would be clearly outlined so that proper measures can be taken to manage them to bring about a decrease in the incidence over the years to come. Also, the group is hopeful that this project and its findings can be used to raise awareness of PE. It is largely unknown among citizens of the country even though they are prone to developing the condition because of the prominence of the risk factors of hypertension and diabetes.

Evaluation of the Efficacy of ST2 and NT-proBNP in the Diagnosis and Prediction of Short- term Prognosis in Heart Failure with Reduced Ejection Fraction.

Heart Guardians: D Sawh, B Scott, V Sears, K Seebalack, M Seenath, P Seepaulsingh, S Seepersad, V Seetahal, S Nayak.

Background: Heart Failure (HF) is defined as the inability of the heart to cope with its workload of pumping blood to the lungs and the rest of the body. Ejection fraction (EF) is the percentage of blood leaving the heart each time it contracts. The normal EF is usually between 50 and 70%. Natriuretic peptides (NP's) (BNP and NT-proBNP) are used mainly to diagnose heart failure in Trinidad and Tobago. However, levels are affected by various other conditions in addition to heart failure. ST2 is a widely accepted biomarker which is used in the prediction and risk stratification of patients with heart failure and is particularly geared towards cardiac tissue.

Objective: (i) To determine the relationship of the cardiac biomarkers ST2 and NT-proBNP with EF in HF patients. (ii) To assess whether the ST2 marker is superior to NT-proBNP in diagnosing the HF with reduced EF. (iii) To determine the efficacy of both ST2 and NT- pro-BNP in predicting 30-day re-hospitalization (short term prognosis) in patients presenting with HF with reduced EF. (iv) To assess the influence of age, gender, body mass index (BMI), anaemia and renal failure on the ST2 and NT-proBNP levels.

Method: A prospective double-blind study was conducted to obtain data from a sample of 64 cardiology patients. A blood sample was collected from each patient to test the ST2 marker and NT-proBNP. An echocardiogram, electrocardiogram and questionnaire were also obtained.

Results: Of the 64 patients enrolled, 59.4% of the population having an EF less than 40%. Using the NYHA classification the population was divided as follows; Class 1 - 42.2%, Class 2- 35.9 % , Class 3 - 28.8 % , Class 4 - 3.1 % . At the end of the 30- day period, 7 patients were warded, 37 were not warded, one died and 17 were non respondent. Both ST2 and NT-proBNP were efficacious at diagnosing HF with a reduced EF. However, neither ST2 nor NT-proBNP were efficacious in predicting 30-day rehospitalisation. The mean NT-proBNP values being: not re-hospitalised (2114.7486) and 30 day rehospitalisation (1008.42860) and the mean ST2 values being: not re-hospitalised (336.1975), and 30-day re-hospitalisation. (281.9657).

Conclusion: Neither the ST2 biomarker or NT-proBNP was efficacious in predicting the short- term prognosis in heart failure with reduced ejection fraction. Both however were successful at confirming the diagnosis of heart failure in heart failure patients with reduced EF.

9

Situational Analysis of HIV/AIDS in Trinidad and Tobago in the Middle of the Second Decade of the 21st century.

Doctors' Advocates: A Olliverrie, A Muhammad, Q Muradali, A Nabbie, A Nandlal, R Nicholas, R Oliver, N Ohonba, K Mungrue.

Background: HIV is an epidemic that became a global concern due to its alarming mortality rates. The deaths caused by this disease are startling, and although there has been an "all hands on deck" approach by most countries towards this issue, the presence of the disease still lingers today.

Objective: The purpose of this project was to conduct a situation analysis of the HIV/AIDS in Trinidad and Tobago with the aim of assessing the feasibility of the use of pre and post exposure prophylaxis as a different approach in combating this disease in an attempt to influence policy changes on clinical, community and governmental level.

Method: This research utilizes a retrospective incidental case design with secondary data of all positive HIV/AIDS patients between the years 2010-2014. A de novo structured questionnaire with 388 respondents was utilized to assess the feasibility of the implementation of pre and post exposure prophylaxis.

Results: The results revealed an overall fluctuation in the total incidence of HIV/AIDS with a lingering presence of HIV in Trinidad and Tobago despite tremendous attempts by the country to reduce the statistics of this disease. This can be attributed to the promiscuous lifestyle of some citizens, which include: multiple partnering, casual sex, and the inadequate use of condoms.

Conclusion: Alternative methods of HIV control should be implemented to attempt to reduce the mortality rate of this disease, which brings the topic of the drug Truvada, a pre-exposure prophylaxis drug that can be implemented as an effective alternative in the fight to decrease HIV incidence.

Adherence to Antiretroviral Treatment from HIV positive Patients at a Major Hospital in Trinidad, W.I.

Adherence Avengers: *S Maraj, C Marshall, M Maturasingh, M Maywalal, R Mahon, A Mc Donald, M Mc Gillvery, G McKinney, S Giddings.*

Background: HIV is no longer a death sentence due to advances in Antiretroviral Treatment (ART). The effectiveness of ART is directly proportional to adherence; 95% adherence being required. There is a clear need to advance our understanding of the causes of low adherence given that non-adherence is widespread.

The ambition of this study is to determine the percentage of adherence among HIV patients accessing antiretroviral (ARV) treatment and factors responsible for this value.

Objective: The objectives include: (i) to determine the viral load of patients living with HIV. (ii) To determine the percentage of adherence amongst persons living with HIV accessing antiretroviral treatment from a major hospital in Trinidad from the period of January to March, 2016. (iii) To assess factors influencing non-adherence to long-term antiretroviral treatment amongst people living with HIV, in Trinidad.

Method: In our cross-sectional study 150 persons on ARV treatment who are- non-pregnant, adults were surveyed and their most recent CD4 count and viral load were recorded.

Results: The adherence percent was found to be 97.80% among the 150 respondents. The main factors associated with non-adherence included being away from home, general forgetfulness and being busy with other things.

Conclusion: Improving adherence rate requires tailoring ART regimen to better fit patients' lifestyle and designing and implementing strategies to aid patients in remembering to take their medication.

Public Awareness of the Health and Safety Practices with Respect to the Ebola Virus Disease in Trinidad and Tobago.

Ebola Educators: *K Melville, C Mohammed, M Mohammed, R Mohammed, S Mohammed, W Mootoo, M Morris, S Pooransingh.*

Background: The Ebola Virus Disease (EVD) is a highly infectious and usually fatal disease marked by fever and severe internal bleeding. It is spread through contact with infected fluids. The EVD outbreak of 2014-2015 created global panic. To date there have been no reported cases of the EVD in T&T, however, it is important for residents to know how to deal with an Ebola outbreak.

Objective: (i) To determine the level of knowledge of the public, across T&T, about EVD and the steps to take if a friend or family member were to contract the virus (ii) To determine the level of preparedness of the general public, on a personal and community level, for an outbreak of EVD in T&T (iii) To determine the population's perception of the readiness of the healthcare system for managing EVD.

Method: A cross sectional study was undertaken. A total of 920 questionnaires were disseminated across T&T in high traffic areas to generate both quantitative and qualitative data to achieve the objectives.

Results: The majority of the population have a basic idea about EVD. However, many persons confuse EVD with other mosquito borne diseases such as the Zika Virus, and were unable to accurately indicate its mode of transmission. The data indicate that the majority of citizens are unaware of all the signs and symptoms of the disease, preventative measures, as well as accurate treatment options for EVD.

Conclusion: The public need more knowledge about EVD and how to prepare for an outbreak. Public perception of the preparedness of healthcare facilities is poor.

Assessment of Knowledge, Attitudes, and Practices towards Infection Prevention among Healthcare Workers in Trinidad and Tobago.

Avast: L Burgess , N Anoop, A Bharat, K Bajnath, V Chato, R De Four, S Duverney, C Unakal, P Akpaka.

Background: Infection prevention and control is a process of disease surveillance in the healthcare system which has been created to investigate, prevent and control the spread of infections and their causative micro-organisms. Nosocomial or hospital-acquired infections have been recognized for over fifteen decades, putting both health workers and patients at risk as health care workers perform clinical procedures or other activities daily that expose them to harmful microorganisms. It is therefore observed that HCWs possess the responsibility of protecting themselves and clients from infectious diseases by applying the correct knowledge, attitudes and practices in their workplace every day.

Method: A hospital based cross-sectional study was conducted among 300 HCWs about their knowledge, attitude, and practice (KAP) towards infection prevention in Trinidad and Tobago. The data was collected from April to June 2016 and was thoroughly checked and cleaned for completeness. This was followed by analyzing the aforementioned data using the SPSS software (16th version). In all cases P-values less than 0.05 were taken as statistically significant. Finally, the findings of the study were explained using tables and other statistical methods.

Results: A total of 300 HCW participated in the study, with a 100% response rate. Only 20.3% were knowledgeable, 46.7% had good attitude and 44% had good practices toward infection prevention, suggesting less than satisfactory scores in the study conducted. 51.3% of workers knew that disinfection prevents hospital acquired infection, while only 53.7% were aware that antiseptic prevents hospital acquired infection. 67% of workers also knew of post exposure prophylaxis for HIV. 83.3% of HCWs agreed that maintaining personal hygiene decreases risk of contamination. Additionally, 76.3% HCWs believed that a patient's awareness about transmission of microorganisms decreases the risk of hospital acquired infection. 86.3% of HCWs always wash their hands with soap and water after taking a sample. Also, 95.7% of workers disposed used needles in its designated bin, with 52% never recapping them after use.

Conclusion: The results highlight generally poor knowledge, attitudes and practices towards infection prevention in the three hospitals in Trinidad and Tobago. Therefore policies should be put in place to ensure regular training programs for HCW, providing strong understanding and a positive outlook on infection prevention.

Causes of Maternal Mortality in Trinidad.

Maternal Instincts: M Hypolite, Y Ingraham, A Ishmael, S Jakeer, C James, R Joachim, L Jogie, D Johnson, A Joseph, E Haqq.

Background: Though the annual Maternal Mortality Ratio (MMR) of Trinidad contributes only a small fraction to the island's annual death rate, any reduction in the number of these casualties would contribute greatly to improving the quality of life that is experienced in this country. Antenatal care over the years has been known to have a protective effect against maternal mortality. Though the average age for a fertile woman is between 15-49 years, our study seeks also to investigate the most suitable age range that is statistically suitable to have an uneventful/healthy pregnancy.

Objective: The objectives of this study were (i) To identify common causes of maternal mortality in Trinidad (ii) To determine the age range in which mothers are most at risk of maternal death in Trinidad (iii) To determine whether antenatal care was sufficiently utilized by the deceased mothers (iv) To determine pre-existing conditions that were identified by antenatal care and lead to a maternal death.

Method: A retrospective cohort study was carried out which utilised the medical records of women who fit the inclusion criteria of the study, that is, women who died during pregnancy, childbirth, or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy. The study sample consisted of all possible persons who have been patients, befitting the criteria of a maternal death, within a five year period from January 1st, 2010 to 2015. The data collection tool used consisted of sets of tables that were to be filled out with information gained from the patient records.

The data collection sheet for the hospital data were used to obtain the following information: hospital registration number, address (region), age, cause of death, pregnancy complications and whether or not antenatal care was obtained.

Results: From the sample size, mortality among patients were as follows: Under 24 – 1 death, 25-29 – 3 deaths, 30-34 – 4 deaths, 35 and over - 5 deaths, Unknown Age– 1 death. Causes of Maternal Death from Hospitals A, B and C: From the data collected, the causes of death at the hospitals were as follows: 42.86% due to any one of the following Indirect causes: DVT, Congestive cardiac failure, dilated cardiomyopathy, hypertension in pregnancy, sickle cell disease, hypovolemic shock, left bronchopneumonia, COPD or collagen vascular disease. 28.57% were due to Amniotic Embolisms. 14.29% was due to Pre-Eclampsia, and 14.29% were of an unknown cause. From data collected, within the age group 25-29 years, 2 persons died from complications of heart, lungs/embolism. One died from unknown. Within the age group 30-34, 2 persons died from complications of heart, lungs/embolism. One died from preeclampsia and one died from unknown cause. From the age group 35 and over three persons died from amniotic embolism, one from complications of heart, lungs/embolism and one from preeclampsia. From the age group 24 and under, one person died from complications of heart, lungs/embolism. One person died from amniotic embolism whose age is unknown. From the data collected, 12 out of 14 persons antenatal care status was unknown, 1 out of 14 had access to antenatal care, and 1 out of 14 did not have access to antenatal care. Distribution of maternal deaths at public hospitals visited. From data collected, 1 out of 14 deaths occurred at hospital C, 5 out of 14 deaths occurred at hospital B and 8 out of 14 deaths occurred at hospital A.

Conclusion: The original aim of the project was to determine the relationship, if any, between access to antenatal care and maternal mortality in Trinidad. However due to the lack of the relevant information on record we were unable to come to a relevant conclusion. Regardless we did manage to get information which coincided with our literature review and so came to the conclusion that, women over the age of 30 years old are more likely to have complications during pregnancy, giving birth and even after birth which may lead to their untimely demise.

Furthermore, it is worth mentioning that, the number of deaths at that age is also inflated by the fact that more women give birth in that age range. Also found were indirect causes were the most common cause of death with amniotic embolism coming in as the second highest.

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Creating a Sustainable Healthcare System Using Healthcare Analytics.

Visio Sanitatem: S Phagoo, C Pierre, D Pirtam, L Ragbir, S Ragbir, P Raghunath, A Rahman, S Maharaj, G Saha.

Background: Healthcare is an important industry at the cusp of major change in developing countries. Sustainability initiatives are being implemented across the globe in healthcare systems, as it serves to significantly improve efficiency and the overall patient experience. However, a plethora of issues continuously impede the proper functioning and sustainability of the healthcare system in Trinidad and Tobago. As such, this project aims to bridge the gap between the challenges faced in our healthcare system and its desired state of becoming sustainable, by the use of Healthcare Analytics. We aim to extend Olsen's (1998) model by defining and developing the interactions between organizational capacity, activity profile (or strategy) and contextual factors. We posit that the interactions of these three clusters produce conditions that are prone to social judgments of various kinds, which affect the sustainability of the intervention.

Objective: (i) To correlate the clusters with each interaction using data and research to obtain the outcome of sustainability. (ii) To create a dynamic relationship between organizational capacity, strategy and context with healthcare analytics via data synthesis. (iii) To determine sustainability and measure the possible benefits of healthcare analytics using the information obtained from the surveys. (iv) To expand the open systems theory to incorporate readiness, legitimacy and viability as external factors that affect the clusters of a healthcare system using data and research obtained. (v) To exemplify sustainability of the healthcare system by means of the expanded model.

Method: Research methodology for this project was divided into two (2) phases. In the first phase, exploratory factor analysis was done to determine the underlying dimensions of sustainability. In the second phase, hierarchical regression analysis was done to test each hypothesis concerning the sustainability implications of relationships between strategies, capacities and context.

Results: 1. Healthcare analytics improves the sustainability of the Healthcare System: it can be seen from the moderated regression that healthcare analytics can improve the overall sustainability performance. It improves the overall health system performance in the area of performances legitimacy and performance viability. 2. Healthcare analytics improves the Healthcare organization strategy: it was seen that public Health Analytics, Research and Development analytics and remote monitoring device analytics all impacted on improving healthcare strategy performance. 3. Healthcare analytics improves the Healthcare organization capacity: pre adjunction Fraud Analytics, Evidence Based Medicine Analytics and Patient Profile Analytics have all improved the organization capacity performance.

Conclusion: Overall, respondents perceived sustainability as a key aspect in the healthcare system. It was also determined that healthcare analytics would provide the best results towards sustainability by creating many strategies and initiatives to transition towards a sustainable healthcare system. Healthcare analytics would improve the organizational capacity, strategy and context by substantially impacting risk reduction, program management, policy, self-care management, finance and evidence based practice. Analytics in the form of data management, strategic assessment and domain segmentation will generate legitimacy, viability and readiness, thus creating a sustainable healthcare system.

The Comparative Analysis of the Costing of Cataract Surgery in the Public vs Private Health Sector.

The MAHAs: M Mahabir, C Mahabirsingh, K Maharaj, L Maharaj, R Maharaj, S Maharaj, V Maharaj, S Maharajh, E Haqq.

Background: Seventy percent of eye surgeries performed in Trinidad and Tobago in the year 2012 were for the treatment of cataracts (Darcel, 2012). This country's public hospitals, funded by the state, cannot cope with the increasing demand for cataract surgeries as in the same year approximately 5000 persons are placed on a 'waiting list'; some being scheduled for surgeries four years later (Kowlessar, 2012). Such surgeries are also provided at private hospitals/clinics where persons can alternatively use personal funds. Cataract is a progressively worsening condition which can develop due to different causes including a person's age, lifestyle, and family history.

Objective: The objectives of this project are as follows: (i) To determine preoperative, operative and postoperative financial costs to a patient in obtaining treatment for cataracts at private hospitals. (ii) To determine the financial cost to the state in treating cataracts by investigating the unit cost of cataract surgery in public hospitals, along with preoperative and postoperative costs. (iii) To compare and contrast financial costs of equipment, consumables and pharmaceuticals among the public hospitals that the state incurs for each patient. (iv) To compare and contrast financial cost for treating cataracts (preoperative, operative and postoperative costs) in both the private and public hospitals. (v) To compare and contrast the waiting time for cataract surgery appointments in both private and public sectors and factors that lead to this delay. (vi) To determine whether it is feasible for the government to outsource the services and infrastructure of private hospitals for the treatment of cataracts in patients who would have otherwise sought treatment at a public hospital.

Method: The sample size of this research consisted of three public hospitals and three private hospitals. In order to maintain confidentiality, each public institution will be named PH1, PH2 and PH3 and each private institution will be named PR1, PR2 and PR3. Information regarding the types of cataract surgery, Phacoemulsification (PHACO) and Extracapsular Cataract Extraction (ECCE), amount and cost of outpatient cataract surgeries, sterilizing and surgical equipment used were obtained from all aforementioned hospitals.

Additionally, the costs of consumables and pharmaceuticals were obtained. To ensure comprehensive information was obtained for accurate findings, data on preoperative and postoperative costs, such as diagnostic costs, bed stay cost etc., were included.

Results: Waiting time was 12 weeks in public hospitals and 3.5 weeks in private hospitals. The cost of performing cataract surgery on average was found to be TT\$9,085 in the public hospitals and TT\$ 16,467 in private institutions. The doctor's fee privately was found on average to be TT\$7,433 and costs the state TT\$1,045.08 in public hospitals. However it was determined that the equipment, consumables and pharmaceuticals cost TT\$7,541.76 in public hospitals and TT\$2,867 in private hospitals.

Conclusion: The waiting time at public hospitals was found to be almost 4 times that in private hospitals. In conclusion, the overall cost of carrying out cataract surgeries at public hospitals was cheaper than the cost at the private institutions. The cost of using equipment, consumables and pharmaceuticals are more expensive at public institutions, but the cost of doctor's salary at public hospitals is significantly less than in private. The latter factor resulted in the private hospitals being more expensive.

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Quality Assessment of Palliative Care being offered at Caura Palliative Care Unit (CPCU) Caura, Trinidad.

P.A.L.S: *C Aboud, A Adderley, S Adderley, R Albert, K Alexander, A Ali, A Ali, R Maharaj.*

Background: Palliative Care is a specialty focused on comprehensive multidisciplinary care of patients with serious or life threatening illness. The demand for this service is expected to amplify in light of increased prevalence of Non-Communicable Diseases (NCD's). This specialty has been recently extended into the local public service in the form of a new Palliative Care Unit. The quality of which has not been previously investigated.

Objective: This project assessed the quality of Palliative Care at CPCU by the following objectives: (i) Assess the level of patient evaluation in terms of documentation of psychological, spiritual, functional and social domains (as a measure of quality review), (ii) Assess documentation of

prognosis and advance care planning, (iii) Identify the types and quantities of analgesics used for pain, (iv) Identify the demographics of patients admitted to the clinic at the Caura facility, and (v) Identify frequency of diseases and symptoms being managed at the clinic.

Method: This study was done in the form of a retrospective chart review where data on 182 records of patients who were admitted into the unit between August 7th 2014, and August 7th 2015 was reviewed and analysed. Information on demographics, medication, prognosis, and diseases and symptoms assessed using the PEACE Tool as the international benchmark was extracted and entered into a data records sheet.

Results: There majority of records showed documentation of pain and dyspnoea. Almost one third of patients' charts, however, had no documentation of pain assessment. A large proportion of patients had no documentation of psychological or spiritual assessments. The majority of patients had documentation of performance status. Approximately one half of the records showed documentation of prognosis. Almost half of the patients with documented prognosis had estimates of days to weeks left. 74% of patients reviewed at the unit had a diagnosis of cancer.

Conclusion: This study highlights the fact that formal Palliative Care provision locally has room for further development. Aspects of the PEACE Tool can be utilized to improve the standard of patient assessment which will result in improved multidisciplinary care. Results showed a need for earlier referrals, and further research about Palliative Care provision for other NCD's.

Knowledge, Attitudes and Practices (KAP) of Medical Practitioners relating to the Use of Information Communication Technology (ICT) in the Current Practice of Medicine in Trinidad.

Doctors of Communication: J Rampersad, N Taitt, K Trabolay, K Tulsie, N Turner, S Verma, D Waldron, A Walker, S Warner, P Maharaj.

Background: Information and communication technologies (ICTs) have been essential in the medical field, enhancing access to information in a timely manner. Globally, ICT in medicine can take the form of Hospital Information Systems (HIS), which integrate hospital administration, electronic medical records and clinical information to streamline and to support decision making and patient care. A study conducted by Adeleke et al. promotes ICT implementation in healthcare to increase efficiency. Nationally, the Ministry of Health (MOH) offers an online medical library service, to enable healthcare providers' access to e-journals and other online resources. No such study has been undertaken nationally to determine KAP of doctors to use of ICT. Thus, in this study we hope to determine physicians' knowledge of available ICTs, their attitudes towards E-health services and if physicians use the available ICTs.

Objective: The objectives of this study are (i) To assess the knowledge/competency of medical practitioners in ICT in Trinidad (ii) To determine the attitudes of medical professionals towards the use/ implementation of ICT in public hospitals in Trinidad (iii) To determine the usage of ICT's in public hospitals in Trinidad (iv) To determine at which hospital doctors have best KAP, to serve as a model for future ICT implementation.

Method: A cross-sectional study was conducted to assess knowledge, attitudes and practises towards ICT among doctors in four public hospitals (namely; Sangre Grande Hospital, Eric Williams Medical Sciences Complex, Port of Spain General Hospital, San Fernando General Hospital) in Trinidad. Data was collected between the period 24th May-10th June 2016 via quota sampling of doctors. Respondents were selected based on convenience, using a self-administered questionnaire. A total knowledge and total attitude value was obtained by scoring relevant questions and data was analysed using SPSS.

Results: Out of 324 respondents, the majority were between the ages 20-29 (64.80%) and Trinidadian (89.60%). Females accounted for 51.90% of the sample. Overall, respondents' total knowledge of ICT in 3 dimensions was deficient, with approximately 60% having a knowledge rating of poor- very poor. However, respondents at SGH were most familiar with the ICT existing in their field (75%). Notwithstanding respondent's' negative attitude toward current ICT use, with 95.70% deeming it largely insufficient, respondents total attitude toward ICT greater ICT implementation was overwhelmingly positive, with 96% having a strong positive to positive attitude. In particular, respondents at SGH had a preference to use laptops (58.30%) when compared to those at other hospitals. In terms of practises, paper based communication was the most widely used (77.80%), and the level of ICT adoption was largely rated as poor (58.10%). Again, respondents' at SGH used laptops more than their counterparts (88.10%), and used any form of ICT more frequently (97.30%). Respondents predominantly cited a lack of resources.

Conclusion: Doctors in the sample appear to have a lack in knowledge of ICT that exists in healthcare. Conversely, attitudes of sampled doctors were positive in all 4 hospitals toward the greater implementation of ICT in healthcare, and toward openness to learning sessions for use of new ICT systems. However, in examining practises, low adoption levels of ICT mean paper based communication exceeds use of modern ICT's. One of the major shortcomings to greater ICT implementation identified was the lack of funding and resources. Thus, while study sample of doctors had a positive attitude to ICT implementation, this is hindered by a lack of knowledge on part of respondents of ICT that exists in the medical field and by a low adoption of ICT in the hospitals, possibly due to budgetary constraints. Cautiously, respondents at SGH appear have best KAP compared to counterparts in other hospitals. However, this is initial research, and due to limitations in methodology, these findings cannot be generalised to the population of doctors. Hence, further research is needed.

Choosing to Pursue a Medical Career: Factors Influencing the Decision to Attend Medical School: A Survey of First to Final Year Students.

Medical Students Shaping the Future: C Onuoha, K Parmesar, S Partheeban, G Patrong, M Paul, N Pereira, L Perouza, N Persad, W Labastide, G Legall.

Background: The choice of a career is a complex matter the correct selection of which is a function of a not-so-simple web of socio-demographic and cognitive factors. Especially is career selection a major concern of students nearing the end of their five-year secondary schooling; and it is best in collaboration with parents and teachers. The choice of a career can make all the difference between job satisfaction and dissatisfaction in later life. It could also impact job performance, job stability and professional growth and development.

Objective: The objectives of this study are: (i) To determine the factors that influence medical students to pursue a medical career. (ii) To determine if these factors relate to medical students feeling unhappy or disappointed with their career choice.

Method: The target population of the study is all the undergraduate medical students enrolled in the Faculty of Medical Sciences in UWI, Trinidad and Tobago during the 2014/2016, and academic year. Data were collected through a survey which was part of a cross-sectional study. First it was determined that a sample of size 369 was needed. Secondly, students were selected by convenience sampling since it was clear that simple random sampling was not feasible even though it would have been possible to construct a sampling frame. The data collection instrument was a 13-item questionnaire.

Results: Respondents were comprised of 168 females (61.8%) and 115 males (38.2%). The majority were First year students (n = 146; 48.5%) followed by Second year students (n = 91; 31.6%), Third year students (n = 43; 14.3%) and there were only 17 Fourth year students (5.6%). Overall, the most commonly reported motivational factor to study medicine was 'liking to help/serve people' (79.4%). We could not adequately find a correlation between respondents' influential factors and their levels of regret in their decision to pursue a medical career.

Conclusion: There appears to be a diverse range of factors that influence medical students in Trinidad and Tobago to pursue a career in medicine. The most common of these motivating factors was 'the desire to help people' which is a good sign suggesting that future medical practitioners will have that element of humanity and compassion that is needed in such a profession. Parental influence also played a huge role in medical students' decisions whereas high school career guidance counsellors had very little impact. As a consequence, perhaps, majority of medical students felt that they were not very well-informed about medicine prior to making their decision. To add to this, a huge portion of students have regretted their decisions at some point, with increasing rates of regret as their medical education progressed. This again may be due to the lack of information prior to admission to medical school.

Investigating the Genetic Markers of Empathy and Social Decision-making in Medical Students.

The Gene Theory: A Bissessarsingh, S Blackman, C Boodoo, V Branker, S Browne, S Budhai, F Youssef.

Background: Empathy is defined as the psychological identification or vicarious experiencing of the feelings, thoughts or attitudes of another. It plays a crucial role in the doctor-patient relationship as it aids in building trust in the relationship. In medical training, empathy is considered a critical attribute for physicians and great importance is placed on sensitizing students to become more empathetic. Within recent years, there has been increasing interest in the underlying neurobiology of social cognition. As data has accumulated, attention is now turning to the underlying genes (dopamine, serotonin and oxytocin) that have been implicated in regulation of social cognition and empathy. However, the little work that has been carried out exploring these questions has been done primarily on Caucasian populations, and there is little to no work within the Caribbean. Our project aims to fill that void.

Objective: This study investigates the influence of dopaminergic, serotonergic and oxytocin genetic markers on empathy and other forms of social decision making based on the Jefferson Scale for Physician Empathy (JSPE), the Geneva Emotion Recognition Test (GERT) and the Interpersonal Reactivity Index.

Method: This study was one of a cross-sectional design. It was conducted at The Faculty of Medical Sciences at the University of the West Indies (UWI), St. Augustine campus. The sample size of the study was two hundred and twenty-one (221) students. Participation in this study was voluntary and empathy was assessed using a combination of four instruments:

1. The Jefferson Scale of Physician Empathy (JSPE)

The JSPE questionnaire was printed and given to students willing to participate in the study. Students were asked to complete the questionnaire by rating on a scale of 1-7, where 1 indicated strongly disagree and 7 indicated strongly agree, several scenarios that coincide with their habits and behaviours.

2. The Interpersonal Reactivity Index (IRI)

The IRI questionnaire was printed and given to students who were willing to participate in the study. Similar to the JSPE, students were asked to complete the IRI questionnaire by rating on a scale of A-E, with A being “Does not describe me at all” and E being “Describes me very well”, several scenarios that coincide with their habits and behaviours.

3. The Geneva Emotion Recognition Test (GERT)

Students willing to participate in the study were asked for their email addresses. The GERT survey was then emailed to participants and they were required to complete the GERT by choosing the emotion they thought was best represented in short video clips.

4. DNA sampling - Cheek swab

DNA samples were collected by first distributing vials and swabs. Students were instructed to label their vials legibly with their names and this was followed by a demonstration on how the cheek swabs were to be done. The cheek swabs collected in the vials were placed in cases which were stored in a freezer to preserve the DNA samples.

Data and statistics collected from the JSPE, IRI, GERT and DNA samples were analysed and compared to data from previous studies.

Results and Conclusion:

Pending.

Factors Influencing Non-compliance with Anti-epileptic Medications in Trinidad.

The Epileptics: *C Joseph, S Joseph, J Kawall, K Kanhai, K Kanhai, A Kellman, C Kewley, K Khan, J Khanhai, A Panday.*

Background: Epilepsy is a chronic non-communicable brain disorder affecting approximately 50 million people of all ages worldwide, making it one of the most common neurological diseases. Around 80% of individuals with epilepsy live in low- to middle- income countries and respond to their treatment 70% of the time. They often suffer from stigma and discrimination, which has a great impact on their quality of life. Generally, many diagnosed patients receiving care for epilepsy where anti-epileptic drugs are available experience recurrent seizures as a result of non-compliance, which leads to the importance of investigating the factors affecting non-compliance, so that they can be addressed to improve health outcomes.

Objective: To investigate the factors that influence non-compliance with anti-epileptic medication in epileptic patients attending Neurology clinics across Trinidad by determining the relevant patient-related, illness-related, physician-related, and medically-related factors and to investigate how the healthcare system affects compliance with anti-epileptic medications in epileptic patients in Trinidad.

Method: A cross-sectional study of epileptic patients attending public neurology clinics in Trinidad was used to examine non-compliance of anti-epileptic drugs via one-time questionnaire.

Results: In this investigation, 167 patients participated – a response rate of 93.8%. The students included 0.6% 0-9 year-olds, 15.6% 10-19 year-olds, 25.7% 20-29 year-olds, 26.9% 30-39 year-olds; 9.6% 40-49 year-olds, 11.4% 50-59 year-olds, and 10.2% 60-89 year-olds. 50.3% of participants reported that they sometimes forget to take their anti-epileptic medication, and 60.5% responded that they did not take their anti-epileptic medication on purpose in the past year. ANOVA analysis revealed no statistically significant association between level of non-compliance and age, hospital or gender ($p > 0.05$).

Chi-square analysis revealed differences between gender and taking multiple medications for epilepsy, feeling tired and sluggish when taking medications and not liking how they have to take medications ($p < 0.05$). It also revealed differences between neurology clinic and how often patients run out of medications, having more than one doctor prescribe medications and difficulty filling prescriptions. There were differences in those forgetting to take their anti-epileptic medications and forgetting to bring along medications when travelling or leaving home, feeling hassled about sticking to their treatment plan, frequency of taking medications and being confused about and forgetting to take medications. Furthermore, there were differences between patients deciding not to take their anti-epileptic medications and stopping medications because they felt worse, taking their medications yesterday, stopping medications when their epilepsy is under control, feeling hassled about sticking to their treatment plan, having difficulty remembering to take their medications, stopping medications in the last six (6) months, stopping medications if they feel worse, feeling strange while on medications, frequency of taking medications, missing doctor's appointments, running out of medications, religion, experiencing side effects, being confused about and forgetting to take their medications, not thinking that epilepsy is important and being stressed about medications and being epileptic.

Conclusion: Assessment of non-compliance should be integral in the management of epilepsy, taking into consideration the medication-related, patient-related, physician related and illness related factors which must be addressed to increase compliance with anti-epileptic medications in Trinidad

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The Knowledge and Attitudes of Blood Donors to Voluntary, Non-Remunerated Blood Donation in Trinidad.

Medtectors: *K Rajnath, A Ramai, D Ramkissoon, S Ramkissoon, C Ramlal, K Ramnarine, K Rampersad, K Charles.*

Background: Globally, there is a trend that potential blood donors are often deterred from donating blood as many have a fear for needles and pain along with the preconception that there is a high possibility that diseases can be transferred via blood donation; thus leading to an inadequate amount of stored blood.

Regionally, it was noted that the public has little knowledge and many misconceptions about blood donation while nationally, the major reason for low blood donation by participants was the lack of information about the process.

Objective: The objectives of this study are: (i) To assess the knowledge of blood donors to voluntary non-remunerative blood donation in Trinidad and Tobago, (ii) To assess the attitudes of blood donors to voluntary non-remunerative blood donation in Trinidad and Tobago, (iii) To examine the different types of blood donations in Trinidad.

Method: A cross-sectional study which is a type of observational study was used to gather the necessary data via random sampling. The study comprised of five hundred and fifty blood donors from the blood bank in the Eric Williams Medical Sciences Complex.

Results: Overall, blood donors and the public as a whole have very little knowledge about blood donation. There are numerous misconceptions about the topic thus discouraging persons to voluntarily donate blood. The main type of blood donation was found to be replacement donation for a relative (86%) and many donors were quite reluctant to become voluntary, non-remunerated blood donors.

Conclusion: The knowledge of blood donors to voluntary non-remunerative blood donation in Trinidad was found to be limited. People were uninformed of the process of voluntary, non-remunerative blood donation and how their blood would be used, which disconcerted potential voluntary donors. Despite this, people are still aware of the issue of the blood shortage in the country. Overall, local blood donor's knowledge of voluntary non-remunerative blood donation is lacking and as such, there is a subsequent distrust towards the system.

Factors that Affect the Breastfeeding Practices of Mothers who bring their Children to Child-wellness Visits at the St. Joseph Enhanced Health Centre.

The Pacifiers: A Ramlochan, J Saidwan, R Saladeen, G Samaroo, K Samaroo, K Sardarsingh, J Sargent, V Singh.

Background: Breastmilk is the ideal food for an infant; it provides all the essential nutrients necessary for healthy growth and development. Breastfeeding has been linked to optimal growth in children, as well as lower risk of future lifestyle disease. In Trinidad and Tobago, the exclusive breastfeeding rate for less than 6 months is 13%, and the complimentary breastfeeding rate at 2 years is 22.4%. A comparison with the rates of other countries showed that there is much room for improvement.

Objective: The objectives of this study are: (i) To determine the impact of socioeconomic status on breastfeeding. (ii) To investigate how mothers' attitudes to breastfeeding influenced their practices. (iii) To explore the social supports available to breastfeeding mothers. (iv) To ascertain whether perceived benefits from breastfeeding (to both mother and child) affect their breastfeeding practices.

Method: A survey study of the women at the St. Joseph Enhanced Health Centre was carried out to collect information from a sample of 94 women. Convenience sampling was employed at random, and data was collected by means of a self-administered, standardized questionnaire.

Results: Household income did not have a significant influence on breastfeeding rates, and rates decreased as hours worked per week increased. Personal knowledge was found to be more influential than health professionals on breastfeeding practices, and mothers showed general awareness of the harmful effects that cigarettes and alcohol convey through breastmilk. It was found that only half of the mothers have strong support to breastfeed in the workplace, and a majority of workplaces do not provide breastfeeding facilities, nor award time-off during work-hours to breastfeed; these were linked to lower breastfeeding rates. It was also found that nipple problems in the mothers did not deter them from breastfeeding, as no decrease in breastfeeding rate was observed for this indicator.

Conclusion: Appropriate policies must be implemented by the relevant authorities to increase the support available to mothers for breastfeeding, in the health system and the workplace. More awareness should be brought to the benefits of breastfeeding, to both the general public and mothers. It is desired that more mothers adhere to the recommended practice, and that the public be more supportive of the practice.

Arthritis and Health Related Quality of Life in Adult Outpatients in Trinidad.

The Joint Chiefs: N Goberdhan, V Goberdhan, A Greene, N Greenslade, T Guerra, N Hassan, B Hassett, A Hillhouse, T Hosein, S Motilal.

Background: Arthritis is a public health concern in many contexts. One major effect is on the health related quality of life (HRQOL) of patients, as this disease in its various forms singularly, or along with its co-morbidities, contributes to overall patient disability.

Objective: To determine the prevalence of self-reported joint pain, arthritis and associated risk factors and to compare the health related quality of life (HRQOL) in adult outpatients in Trinidad who report joint pain with those who do not.

Method: This research was done using a cross-sectional study design. An interviewer administered, de novo survey was given to adult outpatients attending walk-in clinics from 16 randomly selected primary care centres throughout Trinidad. This survey was used to collect data on the self-reported joint symptoms and HRQOL.

Results: Of 421 subjects approached 392 (93%) completed this survey. The average age was 46 ± 17.8 years with 60.5% of respondents being female and 75% being of either East Indian or African descent. Joint pain in the past 6 months, reported by 227 (57.9%) of the sample, was associated with female gender ($P = 0.016$), East Indian descent ($P=0.001$), unemployment ($P=P<0.001$) and primary school education level ($P<0.001$).

Joint pain severity “on average” and “at its worst” was 5.09 ± 2.32 and 7.83 ± 2.16 respectively. Joint pain severity was also significantly associated with primary school education level ($P=0.005$) and East Indian ethnicity ($P=0.002$). There was significant ($P < 0.004$) upset in all domains of quality of life indicators (mobility, activities of daily life, leisure and social activities, general health perception, jobs around the house and mental function) Joint pain severity and duration were also moderately positively correlated with QOL domain scores.

Conclusion: This study was the first to highlight that almost two-thirds of adult outpatients attending walk-in clinics in Trinidad, complained of recent joint pain of moderate severity, and this was associated with upset in all quality of life domains. Several evidence based recommendations were made to help reduce the morbidity that would be associated with such a prevalent condition.

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The Effect of Acute Exercise on Risk Taking.

Risky Exercise: *S Bissessar, P Rochford, K Roll, D Rolle, A Romany, L Rondla; A Roopchand, K Roopnarine, V Sagar, F Youssef.*

Background: This study aims to investigate the effects of acute exercise on risk taking behavior in men and women. It is very well documented that exercise alters many physiological processes within the body such as heart rate, blood pressure and some hormonal markers; however the curiosity of how one’s decisions to take risks within context of groups and social environments remains. There have been findings that exercise leads to an increase in dopamine levels which in turn increase risk propensity. Other unlinked studies have shown that there is a difference in response to acute stress (which is associated to acute exercise) by males and females (i.e. males take more risks than females) and this is believed to be due to separate neuroendocrine mechanisms. This initiative hopes to broaden the bank of studies like its kind and attempts to bring some solidity to the investigation on risk taking behaviour.

Objective: (i) To determine whether acute exercise affects a person’s risk taking behavior using the Balloon Analogue Risk Task (BART). (ii) To determine how exercise intensity affects a person’s risk taking behavior. (iii) To determine whether there is any sex difference with acute exercise.

Method: This study was of a within subject design. Its sample consisted of 22 subjects (50% male and 50% female) between the ages of 18-30 years who exercised at least twice a week. Each subject was required to cycle on a stationary bike at a target heart range for the respective intensity, either low or high intensity for 30 minutes, on two separate occasions. Certain standard readiness preparations and written consent were met by each subject before performing the exercise. Directly after completing the exercise the subject does the BART test (measure of risk taking).

Results: Overall, it was found that session intensity and order of trials had no significant effect on risk taking behaviour ($p=0.28$ and $p=0.93$). However males were found to be more risk taking across both intensities than females as $p < 0.001$ when the two groups were compared. Furthermore, males were shown to be more likely to increase their risk taking behaviour following high intensity exercise.

Conclusion: The findings of this experiment brought evidence that acute exercise did not have significant effects on risk taking behaviour. However, it supported other studies that showed males were more likely to increase their risk-taking behaviour than females. All in all, greater research is required to come to more conclusive results.

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Investigating the Link between BPH, BMI and type 2 Diabetes Mellitus.

The Smooth Operators: *A Seymour, S Sharma, V Shripat, R Sidat, S Siddiqui, N Sieunarine, K Sinanan, S Nayak.*

Background: Several researchers have observed that factors such as diabetes mellitus, obesity and ethnicity may be associated with the progression and/or aetiology of BPH. Several studies have supported such an observation while others have refuted it.

Objective: Our study aimed to determine if relationships existed between these variables and BPH.

Method: This was a cross sectional study consisted 95 BPH patients who had PSA values higher than 4.0ng/mL from the Urology Clinics at NCRHA and SWRHA.

Subjects were interviewed to gather anthropometric data (height/weight) as well as blood sugar levels and diabetic status which was analysed using the SPSS program.

Results: Our findings revealed that differences in mean PSA values between diabetics and non-diabetics, different ethnicities and across BMI ranges were all statistically insignificant. Therefore, there was no relationship between BPH and Type 2 diabetes, BMI or ethnicity; however, the majority of obese candidates appeared to have a high PSA value. There was also an increased incidence of BPH amongst Africans and East Indians, and increased blood glucose levels among individuals over the age of 40.

Conclusion: Further research is necessary in this field, to include other public hospitals in this country, in order to obtain a larger sample size, to gain more successful results. In addition, further research using a larger sample size can reveal trends and relationships more clearly, and reduce errors due to patient recall bias and inaccurate reporting.

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Assessment of the Knowledge and Practice of Dietary Habits and Healthy Lifestyle among Medical and Non-medical students in Trinidad.

9 of the Lifestyle: J Edwards, J Fakoory, T Francois, A Gajadhar, G Garcia, K Gaydeen, A George, C Ghisyawan, S Gidla, W Labastide, G Legall.

Background: Previous extra-regional studies have shown that medical students are more knowledgeable than non-medical students about healthy lifestyles and dietary habits but neglect to practise them. This study will also look into that comparison; however, it will be the first of its kind in the Caribbean.

Objective: The objectives of the study are: (i) To ascertain whether medical students have a greater knowledge of healthy lifestyles and dietary habits than non-medical students; (ii) To identify the factors which contribute to the practices of tertiary level students with respect to lifestyle and dietary habits; (iii) To determine whether a correlation exists between knowledge and practices of lifestyle and dietary habits in tertiary level students.

Method: Self-completed questionnaires were distributed to 246 students in three tertiary level institutions in Trinidad

and Tobago and a distinction was made between medical and non-medical students. Data were entered and analysed using Statistical Package for the Social Sciences (SPSS), Statistical inferential methods include comparisons of mean knowledge and practice scores using two independent sample t-tests and analysis of Variance (ANOVA).

Results: The results showed that on average, the medical students were more knowledgeable than the non-medical with respect to both dietary habits and healthy lifestyle practices. It was also discovered that there were no significant differences on average in relation to their practices except in the use of recreational drugs where medical students were reported to more regularly indulge.

Conclusion: It was found that though medical students had more knowledge about healthy lifestyle and dietary habits, they neglected to put it into practice. This may be as a result of the lack of accessibility to facilities that promote healthy lifestyles and dietary habits or the economic strain on a student to conduct a healthy life.

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A Comparison of the Montreal Cognitive Assessment Score versus the Mini Mental Status Examination in a Trinidadian Population with Emphasis on Patients with Human Immunodeficiency Virus (HIV) and Type 2 Diabetes Mellitus (DM).

Brainiacs: N Rampersad, B Ramroop, N Ramroopsingh, V Ramsaroop, S Ramsawak, R Ramsoondar, V Ranjitsingh, C Ricketts, S Mohammed, M Rahman, S Sandy.

Background: Dementia and Minimal Cognitive Impairment (MCI) as a result of ageing and other presumed aetiologies, including HIV and DM, is on the rise in our country. The MoCA and MMSE are two cognitive screening tools however no previous published has compared these two tests as a screening tool for dementia in a Trinidadian population.

Objective: The objectives of this study are to compare the MoCA and MMSE in (i) a healthy adult Trinidadian population; (ii) an adult HIV Trinidadian population; and (iii) an adult DM Trinidadian population, to determine which is the more effective screening tool for detecting the prevalence of cognitive impairment.

Method: A cross sectional study was conducted on a sample of 141 patients, comprising 51 healthy, 67 DM and 23 HIV patients. MoCA and MMSE tests were recorded. Duration of illness, HbA1c values and grades of acanthosis nigricans were analysed for the DM patients while CD4 cell counts and viral load values were analysed for the HIV patients.

Results: Patients scored significantly lower than the cut-off MoCA score of 26 compared to the MMSE cut-off score of 24 in normal, DM and HIV sub-populations..

Conclusion: The MoCA demonstrates a higher sensitivity for MCI in the Trinidadian adult normal, DM and HIV populations, than the MMSE.

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The Prevalence of Workplace Stress among the Academic Staff of the Faculty of Medical Sciences, UWI, St. Augustine Campus.

The Stress Relievers: *A Singh, A Singh, K Singh, S Singh, S Smith, R Solomon, B Soogrim, R Soogrim, EM Davis.*

Background: In well-developed nations such as the United States of America, United Kingdom, Japan, Sweden, Germany and Canada, many research studies have been conducted on the prevalence and health effects of workplace stress. Regionally and nationally, there have been few studies that critically examine the prevalence of stress in the workplace, the leading causative factors that contribute to this stress, the physical/psychological trauma associated with work-related stress, or dealing with appropriate stress management strategies. Due to globalization and the changing nature of life and work in developing nations, such as Trinidad and Tobago and the Caribbean nations at large, work-related stress is quickly becoming an area of concern.

Objective: The objectives of this study are: (i) To explore the prevalence of workplace related stress among the academic staff members, and determine the leading causative factors. (ii.) To assess the risk of suffering physical or psychological in dealing with/associated with workplace related stress.

(iii) To develop and promote feasible and effective approaches to stress management that seek to improve the livelihood and decrease the risk of stress related diseases in the target population. (iv) To examine the extent to which awareness of work-related stress is raised on a local platform.

Method: A cross sectional study design was used and data collection involved the use of a three-part questionnaire consisting of 23 questions. These consisted of both closed-ended and open-ended questions. The questionnaires were then sent via email as a link to a web-based survey software and analyzer (SurveyMonkey) to the Academic Staff. The primary data obtained was then compiled and analyzed with the use of the site SurveyMonkey and the program Microsoft Excel.

Results: After the period of data collection, a total of 53 questionnaires were completed and analyzed. The leading causative factors of workplace stress were determined to be lack of properly established interpersonal relationships amongst both co-workers as indicated by 87.75% of respondents and job description conflict (71.4%). The most commonly resulting disorders were anxiety and sleeping disorders (23.33%). Exercise was determined to be the major coping mechanism for stress by 51.11% of respondents. Also, the majority of respondents (63.04%) were not aware of any efforts made locally to raise awareness of work related stress and its effects.

Conclusion: After careful research, it was determined that most members of the Academic Staff of the Faculty of Medical Sciences, if not all, have had stressful experiences, whether it be short term or long term, in their working environment. Lack of communication among co-workers and job description conflict were the leading causes of unstable environments and workplace stress. Also, there is currently little effort being made to increase awareness of workplace stress. Consequently, there remains a dire need to address this pressing issue on a local, and even regional platform.

Comparison of the Knowledge, Attitude, Practices and Prevalence of Mental Disorders among Medical and Non-medical Students at The University of the West Indies, St. Augustine.

Mental MythBusters: *L Butler, J Carrera, V Chackan, B Chandoo, F Chang, A Charles, A Charles, V Chattu.*

Background: Mental disorders, which can be classified as a chronic disease, have a high impact on the quality of life of many individuals and are potential causes for the development of more serious disorders. Medical students have been indicated as a high risk population for the development of mental disorders, including depression and anxiety, when compared to university students belonging to other faculties.

Objective: The objectives of this study are (i) To assess the knowledge, attitude and practices towards mental illness amongst students of the University of the West Indies, St. Augustine Campus. (ii) To estimate the prevalence of mental illness among students of the University of the West Indies. (iii) To compare the prevalence of mental illness among medical and non-medical students.

Method: A cross sectional analytical study was performed on the knowledge, attitudes, practices and prevalence of mental disorders among 400 students of the University of the West Indies, St Augustine. Data was collected by means of a self-administered questionnaire to students at random.

Results: Medical students had more knowledge about mental disorders compared to non-medical students. The data showed there is a stigma against mental disorders among the students. Anxiety had the highest prevalence of 301 (75.3%) while psychosis had the least with 59 (14.8%). Non-medical students gained a higher prevalence for all disorders except for anxiety and memory.

Conclusion: From the study conducted it suggests that persons in general are knowledgeable about mental disorders; what causes them and how they are treated, however there is still a stigma against persons with mental disorders as respondents overwhelmingly chose not to tell someone if they were diagnosed with a mental disorder.

Correlating Personality Disorders and Abnormal BMI in Persons Visiting Outpatient Clinics at the Eric Williams Medical Sciences Complex, Trinidad.

Best Medical Investigators (B.M.I): *T Angatire, C Ali, S Ali, S Ali, S Ali, A Ameerali, K Andujar, R Browne, G Hutchinson.*

Background: A personality disorder is a type of mental disorder where there is a rigid and unhealthy pattern of thinking, functioning and behaving. The body mass index (BMI) is an index used that relates weight to height. It has been found by many studies that there is a link between high BMI (i.e. >24.9) and mental illness.

Objective: The objectives for this study are: (i) Research personality disorders, (ii) Measure the number of patients with personality disorders, (iii) Research body mass index (BMI), (iv) Measure BMI, (v) Determine if there is correlation between personality disorders and abnormal BMI, (vi) Dissemination of findings.

Method: A correlational/observational study was conducted to obtain data from a sample of 300 patients visiting Outpatient Clinics of the Eric Williams Medical Sciences Complex (EWMSC). However, data from only 261 patients were deemed usable for the study. Data was obtained via use of a questionnaire which incorporated both demographics and the DSM-5 form. Patients' BMI were calculated. The Chi-squared test was used to determine the correlation between the weight status and the mental status of patients visiting outpatient clinics at the EWMSC.

Results: Based on the DSM-5 scores recorded from the 261 patients, it was observed that 75% required further mental evaluation or follow ups as compared to 25% that did not require such. Additionally, patients who required further mental follow ups were seen to have a higher percentage of obesity that of 32% as compared to 21% for those who didn't require a follow up. The overall findings was that BMI is not statistically related to mental health status. Despite this, trends were observed between weight status and certain aspects of mental illness which required further evaluation.

Conclusion: There was no relationship associating patients with personality disorders, to having an abnormal BMI. However, numerous patterns were observed which included underweight people being more likely depressed and experiencing mania whereas morbidly obese people were more likely to experience anxiety and poor personality functioning. In addition to this, suicidal ideations were more prevalent amongst obese patients and psychosis was more prevalent in patients of normal weight.

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Prevalence of Dental Anxiety and Fear among University Students.

The Dental Fear Specialists: *X Carty, J D'Ornellas, B Gervais, D Joseph, K Kerr, K Maharaj, D Reid, S Soomai, A Teixeira, R Naidu.*

Background: Dental anxiety is an individual's emotional response to a perceived threat or danger from a dental visit or dental procedures. Dental anxiety can cause individuals to delay or avoid dental care despite being in need of dental treatment. Studies in populations show severe dental anxiety in adulthood is correlated with the individual having a traumatic experience as a child. Avoidance of dental treatment by anxious patients has also been associated with negative consequences in social relationships such as, embarrassment about poor oral health and reduced self-confidence. Not only does dental anxiety hamper the individual, the condition also poses a serious problem to the providers of dental care. Preliminary research has indicated that there is a relatively high prevalence of dental anxiety in Trinidad and Tobago.

Objective: The objectives of this study are: (i) To establish the prevalence of dental anxiety in an adult Caribbean population. (ii) To investigate the reasons for this anxiety in the population. (iii) To explore the influences of socio-demographic factors on dental fear or anxiety.

Method: An anonymous survey was distributed randomly to university students which attended The University of The West Indies, St. Augustine. Participants completed a questionnaire which included the Modified Dental Anxiety Scale (MDAS).

The MDAS includes five questions about anxiety to dental treatment rated on a 5-point scale (1=not anxious to 5=extremely anxious) with a maximum score of 25. Additional questions were added to further investigate the participants perception of their oral health and if their fear has ever prevented them from obtaining treatment.

Results: 197 university students participated in the study. 51.3% were male and 76% were 18-24 years-old. Overall, 62.4% of participants reported a low level of dental anxiety (MDAS 5-14), 22.3% moderate dental anxiety (MDAS 15-18) and 15.2% severe dental anxiety (MDAS 19+). 46.7 % participants stated that they would be extremely anxious if they were to have a tooth extracted. 27.4% of the participants stated they would either be very anxious or extremely anxious if they were to have a tooth drilled. On the other hand 43.1% reported not to be anxious if they were to visit the dentist the following day for treatment.

Conclusion: The majority of participants in this sample of the adults reported low levels dental anxiety. Dental care was also found to be readily accessible by the majority of participants. However, moderate to severe dental anxiety was reported in over a third of participants and almost half reported being extremely anxious if a tooth were to be extracted, suggesting that specific types of dental treatments can still elicit high levels of anxiety.

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A Pilot Investigation into Dietary Peculiarities of the Population of Trinidad in relation to Dental Health.

The Fractured Masticators: *S Blackman, V Dabideen, S Forbes, M Hypolite, K Liverpool, A Palackdharry, K Ramdeen, R Ramsaran, R Seepersad, S Marchan, W Smith.*

Background: Cracked teeth, fractured teeth, restorations or prostheses often occur in patients who have a history of biting or crushing hard foodstuffs.

Objective: This pilot study seeks to determine the relationship between fractured teeth, restorations, prostheses, and specific dietary practices.

Method: Anonymous questionnaires were randomly distributed to a convenience sample of Trinidadian adults at various locations around the country.

Results: Three hundred questionnaires were completed. Seventy-five percent of the patients said they like crunchy or hard foods and 51% of the respondents liked crushing bones, mostly chicken bones. It was observed that respondents with a dietary preference for whole channa, split channa, crab and sugar cane were significantly associated with broken dentures. Respondents eating whole channa also had a significant association with broken teeth and broken dentures. Associations were found between some dietary preferences, ethnicities and age groups.

Conclusion: Significant associations between age, ethnicity, sex and certain dietary practices and habits were found. There also appears to be a significant relationship between patients with fractured teeth, restorations and prostheses with certain dietary preferences.

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Medication Use and the Importance of Medication History in Dentistry at the Arima Community-based Dental Clinic, Trinidad.

The Amelodontineers: S Deosaran, N Gaffoor, D Haripersaud, K Jackson, R Lutchmedial, A Maharaj, N Rajcoomar, A Ramharacksingh, V Sewalia, R Balkaran, A Harracksingh.

Background: Dental patients are susceptible to systemic illnesses and not only oral conditions. Furthermore, individuals usually are prescribed various medications to manage and treat their ailments. Oral health care professionals must pay particular attention to medication history as well as patient history as various oral and systemic complications can occur due to such medications. People are more likely to visit dentists as they become older and it is important that dentists are aware of the possible complications that can occur when treating patients with certain medical conditions or who are taking medications. Dental patients are also more likely to visit a dentist in times of oral distress and pain, and may present the dentist with possible oral complications.

Objective: The objectives of this study is to describe the demographic data of dental patients attending a community-based dental clinic, their medication usage, and the prevalence of the medical conditions among dental patients at this dental clinic in Trinidad.

Method: Patients were chosen from Mt Hope hospital to identify prospective candidates for this study. Histopathology reports were requested, along with clinical records containing information pertaining to our study such as CEA values, diet, lifestyle patterns as well as family history. All of the collected information was logged using data collection sheets and analyzed to infer trends between disease and risk factors.

Results: Overall, the study population consisted of 49% Afro-Trinidadians, 21% Indo-Trinidadians, 3% Chinese, 20% were of a Mixed Ethnicity and the remaining 7% participants were classified as Other. 17% of participants had a Dentist while the remaining 83% of participants did not. Most (67%) participants only visited their dentist when there is a dental emergency. Changes in general health in the past year were experienced by 7% of the participants. 17% of the participants had previously been hospitalized for either illness and/or operation in the past. 56% of participants were not taking any form of medical drugs or supplements while 44% of participants displayed a wide range of medical drug use relevant to their medical conditions. 30% of participants use of drugs in relation to only one medical condition present. These included: analgesics (13%); diabetic (5%); hypertensive (5%); supplements (4%); gastric (1%); anti psychotics (1%); and benign prostatic hyperplasia (1%). 14% of participants were on a combination of medical drugs, in order to treat more than one medical condition. These included: diabetes and hypertension (3%); cardiac problems and hypertension (2%); analgesia and supplements (2%); analgesia and antibiotics (2%); diabetic, cardiac problems and hypertension (1%); respiratory problems and analgesia (1%); diabetes and supplements (1%); cardiac problems and antibiotics (1%); and analgesia, hypertension and diabetes (1%). The conditions with the highest prevalence seen were blood pressure problems (14%), followed by diabetes (11%), and then eye problems (7%). The minority of the sample population (1%) experienced; heart attack, heart murmurs, stroke, abnormal bruising, arthritis, had HIV/AIDS, another form of STD and dietary restrictions.

Conclusion: Proper dental treatment also includes the knowledge of a well detailed history of the patient. This includes not only the presenting complaint but a medical history, social history and a list of medications used by the patient. The findings of the study underscore the fact that dental patients can experience an array of medical conditions that must be taken into consideration as systemic health issues and their associated medications played a role on the decision of the dentist on what dental procedures are best suited for each patient.

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Oral Health Attitudes and Behaviours among Medical and Dental Students.

The Lumiveneers: K Bascombe, D Garaway, S Jagarnath, Z Kanhai, S Khan, K Martin, Z O'Leary, I Singh, N Walker, V Ramroop.

Background: Oral health attitudes and behaviours of health professionals have been shown to affect the level of care provided to patients.

Objective: The objectives of this study are to determine the self-reported oral health attitudes and behaviours of medical and dental students and to compare the oral health attitudes between medical and dental students at a university in the Caribbean.

Method: This study included 90 (59 female, 31 male) dental students. A modified English version of Hiroshima University Dental-Behavioural Inventory (HU-DBI) which consists of twenty-seven dichotomous responses (yes-no) was used.

Results: Overall oral health knowledge was high in this population. The level of dental knowledge is better amongst dental students, with female students displaying greater levels of knowledge.

Conclusion: This is the first time such a study has been conducted amongst dental and medical students. Both dental and medical students are generally well motivated with respect to oral health and hygiene with greater levels of dental health knowledge found amongst dental students. As well, the majority of candidates agreed that they did not smoke and the rate of smoking amongst both dental and medical students were lower than the general university population.