



**UWI**

ST. AUGUSTINE  
CAMPUS

FACULTY OF  
MEDICAL SCIENCES

**Student  
Research  
Day**

**2021**



Welcome to the Faculty of Medical Sciences at St. Augustine, Trinidad & Tobago. We are situated at the Eric Williams Medical Sciences Complex and comprise the schools of medicine, dentistry, veterinary medicine, pharmacy and advanced nursing education.

### **Mission Statement**

To train health professionals to meet the needs and improve the care of those whom they serve. To advance learning, create knowledge and foster innovation in medical sciences for the positive transformation of the Caribbean and the wider world.

# FOREWORD

During a pandemic the ability to conduct public health research can prove very challenging for experienced but more so for young researchers. The Faculty of Medical Sciences' 23rd Annual Students' Research Day presents an opportunity for students to showcase research they conducted over an academic year. This research forms part of their public health requirement within the FMS. They are given the opportunity to share their findings with the University community and other stakeholders who would then be able to recognise the potential that is being groomed for the future. COVID-19 has provided many challenges and the students remained resilient.

The research program is a product of the Public Health and Primary Care Unit in the School of Medicine and targets the students at the Schools of Dentistry and Medicine. However, it enjoys the collaboration of staff from across all five schools of the FMS. This booklet of abstracts includes the summary of the research projects undertaken by 37 student groups during the 2020-2021 and 29 groups from the 2019-2020 academic years. During the 2019-2020 academic year no research day was held due to the pandemic. As such, the hard work of these students is also profiled in this publication. The projects undertaken by both year groups have relevance to public health, medicine, dentistry, and education and can inform and improve health policy and practice.

Students, with the guidance of their project supervisors, are also encouraged to disseminate their findings to relevant stakeholders such as Ministry of Health, Regional Health Authorities, CARPHA, general public, etc. utilising reports, conferences, and peer reviewed journal

articles. Some student groups have already published in journals and others have been accepted to present at conferences, such as the 2021 Trinidad and Tobago National Health Research Conference.

The Unit of Public Health and Primary Care would like to acknowledge all the many individuals, departments and organisations that made this happen with special mention to the following:

The former and current Heads of the Department of ParaClinical Sciences, Professors Gershwin Davis and Patrick Akpaka (respectively), all Project Supervisors, the Medical Sciences Library(FMS), The UWI Campus Research Ethics Committee (STA Campus), the research ethics committees of the Regional Health Authorities, the Office of The UWI Campus Registrar (STA Campus), the Centre for Medical Sciences Education (FMS), Cochrane Caribbean (Mona Campus), the Directors of FMS Schools, and the Dean of the Faculty of Medical Sciences (FMS) - Professor Terence Seemungal for their commitment to the students and the programme.

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**An Investigation into the Mental, Social and Physical Impacts of Online Learning on the Students at The University of The West Indies, St Augustine. 23**

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# **PROGRAMME**

## OPENING SESSION

10.15am	<b>Welcome</b>
	Prof Chief Patrick Akpaka, Head, Department of ParaClinical Sciences
10.20am	<b>Remarks</b>
	Prof Seemungal, Dean FMS
10.25am	<b>Remarks</b>
	??

## MORNING SESSION 1

(Concurrent) 10.30am - 11.30am

### General Health

	Chair	Prof Clement
	Judges	Dr Renee West & Dr Anil Persad
10.30 am	001	<b>Impact of COVID-19 on the dating relationships of young adults between the ages of 18-30 years in Trinidad and Tobago.</b>
		Celine Howard   Group 08 Supervisor: Dr. Katija Khan
10.40am	002	<b>A study on the Knowledge and Perception of Physicians regarding Telemedicine Technology in Trinidad and Tobago</b>
		Anushka Roopchand   Group 06 Supervisor: Dr. Madan Mohan Gupta
10.50am	003	<b>A Study on the Choice of Speciality among Medical Students at the Faculty of Medical Sciences, St. Augustine, UWI, Trinidad and Tobago, West Indies</b>
		Reeanna Maharaj   Group 24 Supervisor: Dr. Shastri Motilal



11.00am	004	<b>Assessment of Knowledge, attitudes, and practices towards prevention of respiratory tract infections among the Trinidadian Population</b>
		Sharifa Bacchus   Group 28 Supervisor: Dr. Chandrashekhar Unakal
11.10am	005	<b>A study on the knowledge, awareness, perceptions and behaviours of students of the University of The West Indies, (The UWI), St. Augustine, towards climate change and its impact on human health.</b>
		Meenal Karan   Group 20 Supervisors: Prof. Christopher Oura & Ms. Marsha Ivey
11.20am	006	<b>The ability of family physicians in the Caribbean to promote planetary health concepts and the challenges of implementing change in practice</b>
		Thane Guerra   Group 31 Supervisor: Dr. Sandeep Maharaj

## Non Communicable Diseased (1)

Chair Dr Raveed Khan

Judges Dr Taraleene Malcom & Dr Lisa Benjamin (TBC)

10.30am

007

**The impact of the COVID-19 pandemic on the Mental Health of Medical Students in Trinidad**

Chelsea Harripersad | Group 13  
Supervisor: Dr. Kingsley Ekemiri

10.40am

008

**The Prevalence of Negative Coping Mechanisms and Its Association with The Health-Related Quality of Life of University Students: Impact of the COVID-19 pandemic.**

Shubham Kumar | Group 29  
Supervisor: Ms Marsha Ivey

10.50am

009

**An evaluation of substance usage by students of the Faculty of Medical Sciences, UWI St. Augustine during the COVID-19 pandemic**

Suren Moonsammy | Group 30  
Supervisor: Dr. Sandra Reid

11.00am

010

**A review of the health risk behaviours of adolescents in the English-speaking Caribbean: 2006-2020**

Neekila Nawal | Group 21  
Supervisor: Prof. Rohan Maharaj

11.10am

011

**The impact of the COVID-19 pandemic on risk factors for non-communicable diseases of staff at the University of the West Indies, St. Augustine Campus**

Vasant Heeralal | Group 32  
Supervisor: Dr. Desiree Murray

## Clinical Studies - Dental & Pharmacy

Chair Dr Carla-Maria Alexander

Judges Dr Trudee Hoyte & Dr Shamjeet Singh

10.30am

012

**The impact of COVID-19 related restrictions on orthodontic patients in Trinidad and Tobago**

Celeste Shaffrali | Group 34  
Supervisor: Drs. Arlana Bissoon & Visha Ramroop

10.40am

013

**CBCT analysis of root canal morphology of the mesial roots of maxillary and mandibular first and second permanent molars in the Trinidadian population.**

Christan Ragoo | Group 35  
Supervisor: Dr. Charissa Bando

10.50am

014

**A systematic review on the Aetiology of Non Carious Cervical Lesions**

Stephanie Fosi-Mbantenkhu | Group 37  
Supervisor: Dr. Sunethra Rajapakse

11.00am

015

**A systematic review of case studies on the primary therapeutic interventions used in COVID-19 patients who were reinfected**

Sarika Samlal | Group 27  
Supervisor: Dr. Arlene Williams

11.10am

016

**A study on the Knowledge, Attitudes and Practices of community pharmacists to antibiotic resistance in Trinidad**

		Andrea Maraj   Group 05 Supervisor: Dr. Lorna Merritt-Charles
11.20am	017	<b>The prevalence of the use of prescription medication versus alternative methods to effectively treat sinusitis symptoms in Trinidad and Tobago.</b>
		Aleah Berment   Group 03 Supervisor: Dr. Marlon Mencia
11.30am	018	<b>Natural Bioactive Polypeptides: Clinical Applications in The Bahamas and Trinidad and Tobago</b>
		Vernon Davis Jr.   Group 33 Supervisor: Dr. Rajiv Dahiya
11:30am		<b>BREAK</b> Poster Session: (Links to poster will be provided)

**AFTERNOON SESSION 2  
(Concurrent) 12.30pm - 2.30 pm**

**Non Communicable Diseases (2)**

Chair Dr Jerome Foster

Judges Prof Donald Simeon & Dr Sana Mohammed

12.30pm

019

**Effects of PCOS on the quality of life of women ages 18-44: a systematic review**

Daniella Bridgelal | Group 10  
Supervisor: Drs. Satish Jankie & Shamjeet Singh

12.40pm

020

**A study on the health related quality of life during the COVID-19 pandemic on undergraduate students at the UWI, St. Augustine**

Ejaaz Hosein | Group 12  
Supervisor: Ms. Marsha Ivey & Dr. Henry Mailey

12.50pm

021

**A Descriptive retrospective study of PSA and IPSS scores from participants of a men's health initiative**

Ramona St. Hill | Group 23  
Supervisor: Dr Raveed Khan

1.00pm	022	<b>The epidemiology of end stage renal disease in patients with renal disease in Eric Williams Medical Sciences Complex.</b>
		Farah Selina Mohammed   Group 15 Supervisor: Dr. Ngozika Ezinne
1.10pm	023	<b>Conducting an investigation into the ethnic distribution of diabetes and awareness of diabetic retinopathy among members of the diabetes association of trinidad and tobago (datt) for the period 2020 – 2021 and determine how covid-19 impacted their treatment.</b>
		Keshan Ramnarace   Group 17 Supervisor: Dr. Lisa Benjamin
1.20pm	024	<b>Prevalence of risk factors and lifestyle choices associated with increased cancer in participants in Trinidad and Tobago</b>
		Lyvan Gardiner   Group 19 Supervisor: Dr. Angel Vaillant
1.30pm	025	<b>Epidemiology, risk factors and histopathologic characteristics of the common cancers in Trinidad.</b>
		Nirvana Dipnarine   Group 22 Supervisor: Dr. Shrikanth Umakanthan

## Online Learning, COVID-19 & Health

Chair Dr Shivaughn Marchan

Judges Dr Caroline Allen & Dr Leroy Hill

12.30pm

026

**A Comparison Between Online and Traditional Methods of Curriculum Delivery in COVID-19 Era to Dental and Medical Students of Medical Sciences, St Augustine Campus, UWI**

Akili Serrette | Group 02

Supervisor: Dr. Rodolfo Fundora

12.40pm

027

**A web-based cross-sectional survey on computer-related visual and ocular symptoms and perceived stress, amid the COVID-19 transitional online learning among students in the Faculty of Medical Sciences: A Caribbean perspective**

Ameera Parsan | Group 04

Supervisor: Dr. Virginia Victor

12.50pm

028

**The impact of online schooling due to the covid-19 pandemic on parents and guardians of primary school students**

Danika Lee- Isidore | Group 11

Supervisor: Prof. S. Nayak

1.00pm

029

**An investigation into the mental, social and physical impacts of online learning on the students at the University of the West Indies St Augustine.**

Leean Alexander | Group 18

Supervisor: Dr. Virendra Singh

1.10pm	030	<b>Impact of COVID-19 on medical students' clinical training, their learning behaviours, perceived stress and performance as future medical professionals.</b>
		Asilah Ali   Group 07 Supervisor: Dr. Bidyadhar Sa
1.20pm	031	<b>A study to investigate Self-perceived stress among medical students in relation to their perceptions on virtual learning during the COVID-19 pandemic.</b>
		Riad Ramdath   Group 25 Supervisor: Dr. Monica Davis
1.30pm	032	<b>Investigating the impact of face to face vs online learning on the eating habits of non-clinical students registered at the Faculty of Medical Sciences, St. Augustine.</b>
		Jerome Seunarine   Group 09 Supervisor: Dr. Pradeep Sahu



## COVID-19 Knowledge Attitudes and Practice

Chair		Dr Arlene Williams
Judges		Dr Katija Khan & Dr Christine Descartes
12.30pm	033	<b>An Investigative Study on the Attitudes and Acceptability of a COVID-19 Vaccine in Trinidad and Tobago</b>
		Aadilah Ali   Group 01 Supervisor: Dr. Junette Mohan
12.40pm	034	<b>An investigation of Covid-19 and dentist's perception, attitude and awareness.</b>
		Priya Jagroo   Group 36 Supervisor: Drs. Anne Kowlessor & Trudee Hoyte
12.50pm	035	<b>An Investigation of the Knowledge, Attitudes and Practices of Specific COVID-19 Public Health Regulations and Precautions Among UWI STA Students</b>
		Halimah Mohammed   Group 14 Supervisors: Dr. Carla-Maria Alexander & Ms Marsha Ivey
1.00pm	036	<b>The knowledge, attitudes and practices of mask use for Covid-19 among Students of the University of the West Indies In Trinidad and Tobago</b>
		Sameer Hoosaney   Group 26 Supervisor: Dr. Shalini Pooransingh

1.10pm	<b>037</b>	<b>Assessing the knowledge, attitudes and practices towards the flu (influenza) vaccine and the upcoming Covid-19 vaccine amongst University Staff and Students in The Bahamas and Trinidad and Tobago during the Covid-19 pandemic.</b>
		Kache Hanna   Group 16 Supervisors: Drs. Shamjeet Singh & Satish Jankie
1:20pm	<b>BREAK</b> Poster Session: (Links to posters will be provided)	
<b>CLOSING SESSION</b>		
1:45-	<b>Prizes &amp; Closing Remarks</b>	
2.00pm	Dr Shastri Motilal, Coordinator, PHPC Unit	

# **ABSTRACTS**

**A Comparison Between Online and Traditional Methods of Curriculum Delivery in COVID-19 Era to Dental and Medical Students of Medical Sciences, St Augustine Campus, University of the West Indies.**

*Mending Minds: A Adeyanju, A Chotoo, A Mahadeo, A Martin, A Paul, A Rasool, A Serrette, A Yacoob, R Fundora  
Department of Pre Clinical Sciences, Faculty of Medical Sciences, The University of the West Indies, St. Augustine  
Rodolfo.Fundora@sta.uwi.edu*

## **Background**

The World Health Organization (WHO) declared SARS-CoV-2 as a pandemic on the 30th of January 2020 and naming it officially COVID-19 on the 11th of February 2020. Schools began closing and transitioning to online learning platforms in March including the Faculty of Medical Sciences, University of the West Indies, St. Augustine Campus. Students have since been engaged in online learning from March 2020 till present  
Objective: To determine a comparison between online and traditional methods of curriculum Delivery in COVID-19.

## **Method**

A retrospective cohort study was conducted whereby students in years 1-2 of the MBBS and DDS programmes participated in a voluntary 48-item online questionnaire. The questionnaires were distributed via an online link to the students and participants were obtained through volunteer sampling. All quantitative data were analysed using SPSS software utilizing chi-square and frequency counts and displayed on graphs for convenience and ease of comparison.

## **Results**

74 participants completed the questionnaire; 64.9% females; mean age 21.31 years; 35.1% males; mean age 21.31 years; 93% of participants were in the MBBS programme. 71.6% experienced increased depression and burnout during online learning and 59.4% experienced increased anxiety during online learning. 46% of participants considered face to face learning to be the most effective when it came to retention. Participants also found online learning provided an increase in access to information and an improvement in grades (50%). 62.2% of participants noted that access to online learning platforms was easier compared to face to face learning. Overall participants preferred online learning (41.9%) when compared to face to face learning (40.6%)

## **Conclusion**

Most participants preferred online learning as a method of teaching for medical students due to its ease of access and increased access to information. However, online learning also caused increased mental health issues in medical students including anxiety, depression and burnout.

**A web-based cross-sectional survey on computer-related ocular and visual symptoms and perceived stress, amid the COVID-19 transitional online learning among students in the Faculty of Medical Sciences: A Caribbean perspective**

*A Ali,1 A Dookran1, A Lulkool1, A Mahabir1, A Marchan1, A Monroe1, A Parsan1, A Ramharack1, V Victor2*

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## **Background**

The COVID-19 pandemic has affected millions worldwide. Countries were placed in lockdown and restrictions were imposed to aid in reducing the spread of the COVID-19 Virus. Technology became the main form of communication. Educational institutions transitioned to online learning. This resulted in increased digital screen exposure for educational purposes.

## **Objective**

To determine the impact of digital screen exposure on FMS students' eyes and mental health during COVID-19 transitional online learning.

## **Design and Methods**

A cross-sectional quantitative study design using an online questionnaire comprising of standardized tools SDS, CVSS-17 and PSS-10 assessed the effects of learning online on eye strain and mental stress. SPSS-27 used for analyses.

## Results

- The significant independent variable the hours spent on devices for online learning before and during COVID-19, showed that majority (61.7%) spent 2-4 hours and  $> 7$  hours (61.7%) respectively.
- Majority reported moderate levels of mental stress (68.9%) and Eye Strain (56.1%).
- A weak positive correlation ( $r'$  value 0.204 at P value  $<0.05$ ) was revealed between perceived stress and eye strain.
- Age and gender illustrated significant differences in mean scores of eye strain. The age group 24-29 scored more than the 18-23 ( $t = -4.213$  at  $p = 0.00$ ), and females scored more than males ( $t' = -3.286$  at  $p = 0.001$ ). On perceived stress, females scored more than males ( $t' = -3.02$  at  $p = 0.003$ ).
- The F ratio test showed statistical association between electronic devices used and mean values of eye strain ( $F = 3,176$ ,  $P < 0.04$ ). The program of study was significantly associated with eye strain and perceived stress levels ( $F = 5,174$   $p = 0.02$ ). On B.F test ethnicity impacted eye strain levels ( $p = 0.00$ ).

## Conclusion

COVID-19's transitional learning environment induced moderate to severe eye strain and mental stress. Interventions should be implemented to protect students' vision and mental health.

## **The Impact of Online Schooling Due to the Covid-19 Pandemic on the Mental and Socioeconomic Well-being of Parents and Guardians of Government Primary School Students in Trinidad and Tobago.**

*D Carr<sup>1</sup>, D Fyzoudeen<sup>1</sup>, D Indoi<sup>1</sup>, D Kem<sup>1</sup>, D Lee- Isidore<sup>1</sup>, D Mohan<sup>1</sup>, D Ramdeo<sup>1</sup>, D Ramkay<sup>1</sup>, S Nayak<sup>2</sup>*

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### **Background**

The transition from physical to online schooling due to the pandemic has been a challenge for students, parents and teachers alike. However, parents are often overlooked in this matter but should be prioritized as well since their well-being directly impacts the development of the future generation.

### **Objective**

To assess the effect of online schooling on the mental health of parents and guardians of primary school students, to determine the prevalence of mental health issues such as anxiety, depression and stress and the effect of the COVID-19 pandemic on financial security.

### **Design and Methods**

An assessment was conducted via online questionnaires containing Depression, Anxiety and Stress scale (DASS-21). The tool was distributed to the target population via the principals of randomly selected government schools within the Port of Spain district, following approval



from the Ministry of Education and analyzed using SPSS Statistics.

## **Results**

Data was collected between the months of February to April of 2021 with a total of 100 parents/guardians participating. The findings of this study suggest:

- 28% of participants reported levels of anxiety, 38% stress, and 27% depression
- 79% of participants indicated budgetary changes were required causing extreme distress (34.2%), moderate distress (46.8%), and slight distress (2.5%)
- The prevalence of anxiety, stress, and depression among participants was related to the level of education, financial adjustments due to the pandemic, and the convenience of online schooling.
- The literacy levels and technological skills of parents/guardians were related to a reduction in the academic performance of pupils as >50% of participants did not assist pupils with school assignments.

## **Conclusion**

While the convenience of online school temporarily benefited parents in protecting their children during the pandemic, there has been a decline in mental health due to financial and technological impediments.

## **An Investigation into the Mental, Social and Physical Impacts of Online Learning on the Students at The University of The West Indies, St Augustine.**

*Virtually Challenged: L Alexander<sup>1</sup>, K Bissoon<sup>1</sup>, K Flores<sup>1</sup>, L Hospedales<sup>1</sup>, L La Barrie<sup>1</sup>, K Mather<sup>1</sup>, L Mullings II<sup>1</sup>, K Ragbir<sup>1</sup>, V Singh<sup>2</sup>*

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*Virendra.Singh@sta.uwi.edu*

### **Background**

The sudden transition from traditional learning to online learning due to the COVID-19 pandemic has provided many challenges, which can affect the physical, mental and social wellbeing of students.

### **Objective**

To examine the impact of online learning on the mental, social, and physical well-being of university students during the COVID-19 pandemic.

### **Design and Methods**

A quantitative study was conducted on undergraduate students with the use of convenience sampling methods. Data on the various impacts researched was collected by an online questionnaire using Google Forms. Chi-square, ANOVA, T-testing, and Kendall's tau-b analysis was conducted using SPSS Version-27.

## **Results**

99 respondents completed the questionnaire; 77.8% females between ages 18-25 (92.9%). Faculties: Medical Sciences (72.7%), Science and Technology (15.2%), Engineering (9.1%), Food and Agriculture (2%). Participants experienced increased physical changes like body aches and pains (82.8%) during online classes and were more active during traditional classes (70.7%) than online classes (13.1%). Data suggested that participants had higher levels of stress during online classes (46.46%, 37.37%). Although more time was spent with family, participants still experienced increased feelings of social isolation from peers (58.6%, 28.3%). 49.5% of participants were not involved in social activities during online learning compared to 14.1% during face-to-face learning.

## **Conclusion**

Online learning had minimal benefits and produced many challenges on physical, mental, and social levels. The majority of participants prefer physical sessions to online sessions despite some being satisfied with how the curriculum was delivered online.

## **Impact of COVID-19 on Medical students' Clinical training, their Learning Behaviours, Perceived Stress and Performance as Future Medical Professionals.**

*The Pandemic Physicians: A Ali, B Cross, B Johnston, B Rajkumar, B Seenath, A Smith, B Stowe, T Seemungal, B Sa. Faculty of Medical Sciences, University of the West Indies, St. Augustine.*

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### **Background**

The COVID-19 pandemic led to a global lockdown of all levels and types of educational institutions, prompting the implementation of online education worldwide. Medical education is significantly affected with this development. Subsequently, this created several challenges, particularly to the proper delivery of clinical education. Evidently, it affected the learning behaviours and stress levels of medical students in their penultimate years, as well as the quality of clinical training and their perception of their performance as future physicians.

### **Objective**

To assess the impact of COVID-19 on Medical students' clinical training, learning behaviours, perceived stress and performance as future medical professionals.

**Design and Methods:** A cross-sectional web survey, utilizing purposive sampling amongst all year 4 and year 5 medical students pursuing a Bachelor of Medicine, Bachelor of Surgery (MBBS) degree at the University of the West Indies, St. Augustine campus, was conducted. The questionnaire consisted of four sections: learning behaviours, perceived stress, impact on clinical training and perception as future physicians. Each section utilized a four-point Likert scale as well as open-ended questions.

Chi square analysis was conducted using SPSS version-27. Qualitative data analysed by thematic approach.

## **Results**

145 responded to web survey; Overall impact on learning behaviours with 78.6% indicating that online learning strategies had brought an overall change in their learning behaviour. It was found that 67.6% fell into the moderate stress category with no significant differences observed between subgroups of gender and year group. The pandemic also affected clinical training with 136(93.8%) respondents indicating that COVID-19 had affected the overall quality of their training. Additionally, in perception of future career performance, 90 (62.1%) respondents indicated that they felt a lack of preparation for working as a physician at the end of their training.

## **Conclusions**

Results suggest that online learning is not as effective as face-to-face learning and that revisions and modifications to the delivery of online learning are necessary to facilitate better clinical education during a pandemic. Online courses should be restructured, placing student needs at the forefront.

## **Investigating the impact of face-to-face vs online learning on the eating habits of non-clinical students registered at the Faculty of Medical Sciences, St. Augustine.**

*S Banarsee<sup>1</sup>, S Destia<sup>1</sup>, R Ingraham<sup>1</sup>, S Mahabir<sup>1</sup>, S Mohammed<sup>1</sup>, S Mohammed<sup>1</sup>, S Mohammed<sup>1</sup>, R Ramdath<sup>1</sup>, E M Davis<sup>2</sup>.*

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### **Background**

Quarantine during the COVID-19 pandemic predisposes people to risk factors of NCDs due to unhealthy diet, alcohol use, lack of physical activity and stress. This study will inform students and the general public about the effects of the COVID-19 pandemic on eating habits and to promote healthy eating habits amongst students.

### **Objective**

To explore the impacts of the COVID-19 pandemic and investigate the lifestyle factors which influence the eating habits of second and third year students at the Faculty of Medical Sciences, St. Augustine.

### **Design and Method**

A 64-item questionnaire was administered online using Google Forms, aimed at second and third-year students at the Faculty of Medical Sciences; schools of Medicine (including the Optometry programme), Dentistry, Veterinary Medicine, Pharmacy and Nursing. SPSS v.27 was used to generate descriptive statistics, carry out T-test and chi-squared test.

## Results

77 respondents completed the questionnaire:

- 31% of students reported increased food consumption; 16% increased unhealthy food choices during online classes; 20 % decreased their food consumption; 16% fluctuated and 17% reported no change.
- 65% of respondents reported weight gain during online classes.
- 60 respondents consumed home-cooked meals during online classes compared to 49 respondents for face to face classes.
- The modal stress level during face to face was 7 (17%) compared to that of 10 (26%) for online.
- Mean number of days spent exercising decreased from 2.75 during face to face classes to 1.73 during online classes.
- 67% of cannabis users indicated increased appetite; 33% stated no change.
- 33% of illicit drugs users indicated increased appetite; 67% stated no change.

## Conclusion

Data showed that COVID-19 pandemic influenced lifestyle factors which exerted an effect on students' eating habits. However, the pandemic is still ongoing and findings must be confirmed and examined in larger population studies in the future.

## **The Impact of the COVID-19 Pandemic on the Mental Health of Medical Students in Trinidad**

*Beyond Analysis: C Bahadur, C Carmona, C Casimire, C Dipnarine, C Harripersad, C Lal, C Sookhan, C Stephen, K Ekemiri<sup>2</sup>*

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### **Background**

Mental health is a concern to medical students as they are constantly faced with heavy demands. In the midst of a pandemic, there is a noticeable increase in stress levels worldwide. Therefore, it is necessary to explore the relationship between the COVID-19 pandemic and its effects on medical students' mental health in Trinidad.

### **Objective**

To assess the effect of the COVID-19 pandemic on medical student's mental health at The University of the West Indies, St. Augustine (UWI-STA), Trinidad.



## **Design and Methods**

This descriptive, cross-sectional online-based study utilizes a non-probability sampling technique, acquiring data from medical students enrolled at UWI-STA. This included the psychosocial effect of COVID-19, Patient Health Questionnaire (PHQ) and generalized anxiety disorders (GAD) and factors associated with how the COVID-19 pandemic affected their mental health. Extensive analysis was done using the SPSS software.

## **Results**

The study surveyed 176 medical student, most participants (62.7%, n=111) being female, followed by males (36.7%, n=65). The majority of participants reported experiencing anxiety and depression during the COVID-19 pandemic, with approximately 71% of students feeling powerless over important things in their lives. 81 (49.3%) students experienced depression, hopelessness, and sadness weekly and 18 (10.9 %) students experiencing them almost daily. 81.5% are also concerned about the semester's lack of clinical exposure training. The most popular positive outcome of the pandemic was increased family time. Moreover, feelings of inability to control important things in student's life with feelings of depression, hopelessness and sadness expressed a significant relationship (P-value: 0.000, T-value: 7.219). However, the COVID-19 pandemic negatively affecting student's physical health revealed no significance with feelings of nervousness, anxiety and being on edge. (P-value: 0.43, T-value: 2.044)

## **Conclusion**

The COVID-19 pandemic has negatively affected medical students in Trinidad physically, emotionally and psychologically. These presented issues require attention and strategic implementation of solutions.

## **The Epidemiology of End Stage Renal Disease in Patients with Renal Disease in Eric Williams Medical Sciences Complex.**

Renal Insight Group: F Ali<sup>1</sup>, F Christopher<sup>1</sup>, F Farrell<sup>1</sup>, E Loutan<sup>1</sup>, FS Mohammed<sup>1</sup>, G Ramoutar<sup>1</sup>, E Rampersad<sup>1</sup> F Roberts<sup>1</sup>, E Ngozika<sup>2</sup>

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### **Background**

Chronic kidney disease (CKD) accounts for 2.32% of total deaths in Trinidad and Tobago. The most recent study of epidemiological features of CKD was conducted in Trinidad was 10 years ago. International literature indicates a causal link between diabetic and hypertensive patients developing renal failure. An updated look at the trends in epidemiology and current correlation with diabetes mellitus type 2, hypertension and CKD will benefit the health of the population.

Objective: To analyse the data from patients with CKD from 2016-2021, extrapolate epidemiological information, and establish a correlation with long term diabetes and or hypertension and the development of CKD in Eric Williams Medical Sciences Complex (EWMSC), Trinidad.

### **Method**

This retrospective cohort design study was conducted at the EWMSC Dialysis Centre where 76 patient records were retrieved. Data: age, gender, race, history of diabetes,

hypertension, medications and stages of renal failure was recorded. No identifiable patient information was taken. Chi-squared test, Fisher's exact test, Independent t-test, and ANOVA were conducted using SPSS Version-27.

## **Results**

The age range was 23–93 years; mean age 54.22. People of any age can develop ESRD; no correlation between those >50 years and developing ESRD. There was 93.5% prevalence of stage 5 CKD. Males had a higher likelihood of developing ESRD than females. People of African (28.9%), East Indian (28.9%), and mixed descent (9.2%) are equally affected by CKD. No statistically significant association between diabetes and CKD was found ( $p = 0.210$ ). However, there was a strong association between hypertension and CKD where 80% of the patients had hypertension ( $p = 0.041$ ). Furthermore, no statistically significant association between CKD and anaemia ( $p = 1.00$ ), or CKD and hyperparathyroidism ( $p = 1.00$ ).

## **Conclusion**

Our study showcases epidemiological data of CKD and its association with systemic diseases as possible contributing and non-contributing factors to the disease at the EWMSC, Trinidad.

## **The Prevalence of Negative Coping Mechanisms and Its Association with The Health-Related Quality of Life of University Students: Impact of the COVID-19 pandemic**

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### **Background**

Mental health has become an increasingly relevant matter in today's society, especially amidst the COVID-19 pandemic. Researchers, globally, are investigating the relationships between stress, coping strategies and Health-related Quality of Life (HRQoL). Locally, greater focus is needed to understand the impact of these factors on HRQoL of young adults.

### **Objective**

To determine the prevalence of negative coping mechanisms, associated stressors and the HRQoL of The University of The West Indies, St Augustine Campus (UWI-STA) students, during the COVID-19 pandemic.

Design/Methods: A cross-sectional study of 326 UWI-STA undergraduate students was conducted using quota sampling based on gender and faculty distribution. Self-administered questionnaires, distributed through online social media platforms, captured data on demographics, stress factors, coping mechanisms and the HRQoL measured using EQ-5D-5L (Index and EQ-VAS scores).

Descriptive and inferential statistics presented at  $\alpha=0.05$  level of significance.

## **Results**

Students' age ranged from 18 to 40 (median=21, IQR=20,22) years; 61.8% females. The most prevalent coping mechanisms included: Sleeping (85.5%), Excessive social media use (83%), Poor eating habits (79.1%), Venting (74.6%) and Self-isolation (65.9%). Academic stress/coursework demands (96.9%) and Time management problems (90.3%) were the main stressors. The common EQ-5D health states were 11113 (11.9%) and 11112 (11.6%), reflecting moderate and slight anxiety/depression respectively in the fifth EQ-5D dimension. Average Index and EQ-VAS scores of students were 0.83 and 69.5 respectively. Females had a significantly lower HRQoL compared to males: EQ-VAS score (66.4 vs 74.6) and Index value (0.81 vs 0.86) ( $p < 0.05$  respectively). Students who reported using only positive coping mechanisms had significantly higher HRQoL compared to those who used at least one negative coping mechanism: EQ-VAS scores (75.7 vs 68.1) and Index values (0.89 vs 0.82) ( $p < 0.05$  respectively).

## **Conclusions**

The COVID-19 pandemic resulted in high prevalence of negative coping mechanisms and lower HRQoL among students, indicating the need for appropriate student interventions.

**An evaluation of substance usage by students of the Faculty of Medical Sciences, UWI STA, Trinidad & Tobago, during the COVID-19 pandemic.**

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## **Background**

Substance usage has been identified as a highly prevalent issue among medical students due to the high levels of depression, anxiety, and stress. The COVID-19 pandemic and its associated public health measures are possible precursors to initiate/augment the use of substances by medical students due to the impact on their social, financial and academic lives.

Objective: To determine the impact of COVID-19 pandemic on the prevalence of substance usage among FMS students of UWI STA.

## **Design and Methods**

This was a cross-sectional study with descriptive analysis. The de novo questionnaires were shared by UWI STA Marketing & Communication to the FMS students currently in years 2-5. Collected data was analyzed using SPSS version 27.

## **Results**

There were 106 respondents. There was a significant decrease in the number of students who were using each substance with the onset of the pandemic, with alcohol (before: 81.1% during: 78.3%) and marijuana (before: 35.8%, during: 28.3%) being the most used. There was

an increased frequency of usage by 10% (alcohol) and 5% (marijuana) as more students began to use these substances more often. Respondents who had increased their alcohol or marijuana usage had higher COVID-19 fear scores (79%, 69%). Respondents who experienced heightened anxiety increased their vape (73%), tobacco (70%) and alcohol (61%) usage. The majority used such substances as means of relaxation (56%) or to cope with stress involving academics (30%) or home life (31%).

## **Conclusion**

Fewer students used substances during the pandemic. For those who continued to use, there was a marked increase in the frequency of usage. This was due mainly to the poor mental health and heightened fear during the pandemic.

**A review of the health risk behaviours among adolescents in the English speaking Caribbean: 2006 to 2020.**

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**Background**

Adolescents make up 25% of the English-speaking Caribbean (ESC) population. Previous research (1980-2005) reports that ESC adolescents face many challenges including mental health, drug and alcohol use, violence, HIV and STIs.

**Objective**

To search for and locate research; identify themes and summarize papers pertaining to the health and risk behaviours among adolescents (10-19 years) from the ESC between 2006 and 2020 and to identify gaps and opportunities for future research.

**Method**

After systematic searching, identified documents were screened, combined in tabular form, discussed and a variety of domains were arrived at by consensus.



## **Results**

121 papers were identified. Themes include the following: Substance use: alcohol consumption: 42.8% of adolescents aged 12 -22 used alcohol in last month, cigarettes, 9.9% and marijuana, 8%. High risk sexual behaviour: Many adolescents are initiating sexual activity at 15 years or less, and there is an inconsistency of contraceptive use. Teen pregnancy: 15–19-year-old girls in the ESC have a fertility rate of 60.2 per 1000. There is no significant decline in teen pregnancies in the last decade. HIV/AIDS: The prevalence rate of HIV among youth aged 15-24 years is 2% of the Caribbean population. Mental health: 15% considered suicide ideation; suicide incidence is 1.1 per 100,000. Violence: causes 2.1 deaths per 1000 among those 5-17 years old. Obesity: 30% of adolescents are overweight or obese. Juvenile delinquency and Bullying are other themes. Few interventions were identified.

## **Conclusion**

These findings mirror previous work. There is an opportunity for interventions and policy to address these findings.

## **The impact of the COVID-19 pandemic on risk factors for non-communicable diseases among members of staff at the University of the West Indies, St. Augustine Campus**

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### **Background**

Non-communicable diseases (NCDs) have been described as one of the 21st century's major health and development challenges and are the main cause of death and disability in the Caribbean region. Furthermore, most COVID-19 related deaths in Trinidad and Tobago occur in individuals with NCDs as comorbidities.

### **Objective**

To determine the impact of the COVID-19 pandemic on risk factors for chronic NCDs among staff members at the University of the West Indies, St. Augustine Campus.

### **Design and Methods**

An uncontrolled before-and-after study was conducted using online self-administered questionnaires, to compare risk factor prevalence for NCDs among UWI STA staff before and during the COVID-19 pandemic. Non-probability convenience sampling was utilized to collect

demographic, anthropometric, dietary and lifestyle data. SPSS data files were compiled and analyzed.

## **Results**

There was a 34.8% increase in the proportion of persons working from home. Weight gain reported in 49% of respondents, including a 4% increase in the prevalence of obesity. There was a 23% decrease in proportion of respondents exercising/playing sports ( $p=0.034$ ) and 11.6% decrease in persons exercising for the recommended 150 minutes/week ( $p=0.015$ ). A 17.1% decrease in fast-food consumption ( $p<0.001$ ), a 17.1% increase in home-cooked meals was seen. Meal portion sizes reportedly increased by 17.1% of respondents ( $p=0.227$ ) and 6.6% more persons consumed >3 meals daily ( $p=0.004$ ). Increases in average blood glucose (RBS:  $p=0.139$ , FPG:  $p=0.143$ ) and blood pressure (SBP:  $p=0.135$ , DBP:  $p=0.145$ ) were reported. Alcohol consumption decreased in frequency ( $p=0.232$ ) and intensity ( $p=0.857$ ). Smoking frequency unchanged ( $p=1.00$ ). Number of cigarettes smoked increased ( $p=0.279$ ).

## **Conclusion**

Increases in food consumption frequency, meal portion sizes and sedentary lifestyles were observed, with more persons working from home. This increase in obesogenic behaviours during the pandemic predisposes individuals to the development of NCDs and emphasises the need to promote healthy lifestyle choices despite the COVID-19 lockdown.

## **The impact of COVID-19 related restrictions on orthodontic patients in Trinidad and Tobago**

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### **Background**

Due to the COVID-19 pandemic, government mandated restrictions resulted in the immediate closure of dental clinics, including orthodontic services. By investigating the impact of these restrictions on orthodontic patients, this research may be useful in refining the response of the dental fraternity during public health crises by highlighting the usefulness of telehealth in mitigating hindrances to orthodontic care and emergencies.

### **Objective**

To determine the impact of COVID-19 related restrictions on the treatment of orthodontic patients and the prevalence of orthodontic emergencies in Trinidad and Tobago during the period of lockdown.

### **Design and Methods**

A cross-sectional survey was conducted on patients of orthodontic dental offices located in Trinidad and Tobago by using a convenience sample.

Questionnaires were distributed to patients awaiting treatment by administrative staff and evaluated the effect of the COVID-19 related restrictions on patients' attendance, communication avenues utilized, and the

various orthodontic appliance-related problems that arose during this time.

## **Results**

A total of 118 responses were obtained. Findings revealed 72.03% of orthodontic patients missed appointments during the pandemic; 60% discontinued appointments for 1 to 2 months mainly due to fear of contracting the COVID-19 infection (45.78%) and clinic closure (43.37%). Patient-orthodontist contact occurred once or twice (64.29%) during the period mainly by phone calls (97.50%).

The majority of patients (84.48%) possessed fixed orthodontic appliances whilst 15.52% possessed removable appliances; 58.47% of the population reported appliance related problems; 18.60% due to exposed wires and 33.33% due to misplacement.

## **Conclusions**

The COVID-19 pandemic restrictions have posed a negative impact on the overall treatment of orthodontic patients, including their finances and mental health. Clinic closure has resulted in impeded patient treatment with prolonged treatment time, incurred costs, patient fear, and numerous appliance-related issues arising.

**Cone-beam computed tomography (CBCT) analysis of root canal morphology of the mesial roots of maxillary and mandibular first and second permanent molars in the Trinidadian population: Pilot study**

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## **Background**

The root canal architecture of maxillary and mandibular molars is complicated and differs between populations. Dentists must be aware of the anatomical traits to expect in their patients' teeth in order to achieve high success rates for root canal treatment.

## **Objective**

To investigate ex vivo the root canal morphology of mesial roots of maxillary and mandibular first and second permanent molars in the Trinidadian population.

## **Design and Methods**

A total of 113 extracted teeth were collected from public and private dental clinics across Trinidad. These teeth were identified and mounted onto wax-rims according to tooth type (29 maxillary first molars, 31 maxillary second molars, 23 mandibular first molars, 30 mandibular second molars) and CBCT scans were performed. The root canal configurations in the mesial roots of these teeth were categorized using Vertucci's classification and analyzed for additional accessory anatomy.

## **Results**

The root canal morphology present in this sample size of extracted teeth displayed all 8 categories of Vertucci's classification:

- The prevalence of two canals in the mesial roots of maxillary first molars was 75.86%
- The prevalence of two canals in mesial roots of maxillary second molars was 41.94%
- The prevalence of mid-mesial canals in mandibular second molars was 3.33%
- Additional anatomy such as: multiple intercanal communications, multiple apical foramina, accessory canals, and apical delta were commonly present.

## **Conclusions**

Wide anatomical variation exists in the mesial roots of maxillary and mandibular permanent molars in the Trinidadian population. The prevalence of two canals in the mesial roots of maxillary molars was very high. Dentists in Trinidad must therefore consider better diagnostic and magnification tools when performing root canal treatment of permanent molars, thereby increasing the success rates and retention of natural teeth.

## **Aetiology of Non-Carious Cervical Lesions, A Mini Review**

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### **Background**

Non-Carious Cervical Lesions (NCCLs) appear to be a common condition which adversely affects aesthetics, structural integrity, pulp vitality of teeth and causes dentine hypersensitivity. These lesions also trap plaque leading to the formation of root caries. Successful restoration of NCCLs presents a challenge and understanding its aetiology would be beneficial for clinicians when treating and managing these lesions.

### **Objective**

To produce the best available evidence on the aetiological factors associated with non-carious cervical lesions (NCCLs).

### **Methods**

The protocol used several search terms on six electronic databases to retrieve articles that were published between 2001-2021. The articles relevant to the aetiology of NCCLs were selected based on their titles and the abstracts were screened using a predetermined list of inclusion/exclusion criteria to select good studies. The data was extracted using an excel sheet and findings on the aetiological factors associated with NCCLs were summarized.



## **Results**

The search resulted in ten cross sectional and two case control studies. Four studies (three cross sectionals, one case control) and two cross sectional studies respectively, supported the association of toothbrushing technique and toothbrushing duration with NCCLs. It was also revealed that there was an association between occlusal contact patterns/dynamic occlusal parameters (three cross sectional), occlusal force/trauma (one cross sectional and one case control), occlusal wear (two cross sectional), frequent consumption of citrus fruits (three cross sectional studies) and vegetarian diet/acidic salad (one cross sectional and one case control study).

## **Conclusion**

The duration and technique of toothbrushing, occlusal contact patterns/dynamic occlusal parameters, occlusal force/trauma, occlusal wear, frequent citrus fruits consumption, and vegetarian diet/acidic salad are found to be associated with the aetiology of NCCLs, suggesting the multifactorial aetiology of NCCLs. Age seems to be a risk factor for NCCLs. However, the type of studies reviewed warrants further prospective longitudinal studies on this topic.

## **A Systematic Review of the Primary Therapeutic Interventions used in COVID-19 patients who were reinfected.**

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### **Background**

The WHO declared the COVID-19 outbreak as a pandemic on March 11th, 2020. According to several studies, patients with comorbidities (especially diabetes), were linked to poorer prognosis and greater morbidity/mortality rates. As a result, this review investigates the factors affecting the poor prognosis and risk of reinfection among these patients.

### **Objective**

To examine the specific drug treatment administered to COVID-19 patients with comorbidities, and the factors affecting reinfection among these patients.

### **Design & Methods**

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were used to prepare this systematic review. Databases included: Science direct, PubMed and NIH with 1124 records from January 29th, 2021 - June 8th, 2021.

## **Results**

A suppressed immune response with inadequate CD4+ and T-cell response increased chances of COVID-19 reinfection. Drug interactions between the anti-diabetic / Renin-angiotensin-aldosterone inhibitors (RASi) and antiviral treatments n=10 (32.26%) articles discussed mechanism of action. Other treatments used included corticosteroids / glucocorticosteroids n=12 (38.71%), antibiotics n=6 (19.35%), oxygen therapy (16.13%), interferon-alpha (16.13%), hydroxychloroquine n=4 (12.90%), and chloroquine n=3 (9.68%) was according to the 31 studies reviewed indicating reinfections caused by impaired immunity.

Diabetic patients had lengthier hospital stays and were given antibiotics n=6 (19.35%) and glucocorticoids n=12 (38.71%), the reinfection rates were higher and remdesvir/lopinavir prescribed to diabetic-COVID-19-patients presented with an increased risk of hyperglycemia in diabetics compared to non-diabetics.

## **Conclusion**

Increased hospital stays together with remdesvir/lopinavir and corticosteroid treatment in diabetic COVID-19 patients accounts for the suppressed immune response and increase hyperglycemic events, compared to non-diabetics, thus higher chance of reinfection with the virus or its mutants. Alternatively, insulin therapy is recommended as a substitute to oral treatment. A comprehensive guide to the treatment of COVID-19 in patients with other chronic ailments is recommended.

## **A Study of the Knowledge, Attitudes and Practices of Community Pharmacists to Antibiotic Resistance in Trinidad.**

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### **Background**

Antibiotic resistance (AR), mainly caused by over-prescription and misuse of antibiotics, is a threat to the practice of medicine globally. In order to target and limit the rate of progress of antibiotic resistance, a critical analysis regarding the knowledge, attitudes and practices of antibiotics is required.

### **Objective**

To assess the knowledge, attitudes and practices of community pharmacists in Trinidad towards Antibiotic Resistance and the abuse of antimicrobial drugs.

### **Method**

An online cross-sectional survey was conducted among community pharmacists in Trinidad to assess their knowledge, attitude and practice regarding dispensing of antibiotics, antibiotic use and its contribution to antibiotic resistance. A purposive and snowball sampling approach was taken to recruit the participants in this study. Licensed pharmacists working in private

pharmacies completed the online consent forms and questionnaires. Data was collected between January 2021 to March 2021 and analysed using the SPSS software tool.

## **Results**

The response rate was 54.7% (82/150). 46.9% of the respondents were licensed pharmacists for 3-6 years, 61.7% were female and 32.9% were between 25-29 years old. The results showed that 96.3% (79) of the pharmacists had good knowledge about antibiotics and 85.4% (70) had good knowledge on the relevant laws. 97.6% (80) reported good practice and 74.3% (61) had a positive attitude towards antibiotic use.

## **Conclusion**

The community pharmacists had generally good knowledge, a positive attitude and good practice regarding antibiotic use and dispensing. However, research is needed to assess the extent of antibiotic misuse, as well as the attitude and practice of both physicians and the public to the problem in Trinidad and Tobago.

## **The Prevalence of the Use of Prescription Medication versus Alternative Methods to Effectively Treat Sinusitis Symptoms in Trinidad and Tobago.**

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### **Background**

Sinusitis symptoms are common worldwide; with about 12% of people experiencing them. Locally, the issue is of importance, especially with the large amounts of Saharan dust. Additionally, there is a paucity of research that exists on effective sinusitis symptoms treatment locally.

### **Objective**

To examine the perceived effectiveness of prescription medication versus alternative methods in the treatment of sinusitis symptoms in Trinidad and Tobago.

### **Method**

An observational, cross-sectional study of people in five areas across the country was conducted. Selection was convenient and excluded people under 18 and non-residents. Data was collected using a 20-item questionnaire that included demographic information, use of complementary and alternative medicine (CAM) and pharmaceuticals for treating sinusitis and the participants' preferences. Chi-square analysis was

conducted using the 'Analyse It' programme (Analyse-it Software Ltd, Leeds, United Kingdom).

## **Results**

There were 173 respondents; 67.6% female and a mean age of 31.9 years (SD 12.1). While all surveyed experienced sinusitis symptoms, only 32.4% had been diagnosed with sinusitis. Those diagnosed were more likely to use pharmaceuticals like antihistamines (68.6% of the diagnosed population) and nasal steroid sprays. Alternative methods were used by 53.6% of diagnosed and 36.8% of undiagnosed populations. The most utilized alternative method was tea; consumed by 42.5% of alternate treatment users with ginger tea being most effective according to 21.91% of subjects. CAM was perceived as more effective than pharmaceuticals at relieving symptoms, however, 48% of subjects indicated that a combination is most effective.

## **Conclusion**

The use of CAM is prevalent in Trinidad and Tobago and about half of the subjects believe that the combined use of CAM and traditional medicines are most effective. Further research into the efficacy of CAM for sinusitis treatment and education on sinusitis symptoms could be beneficial to the public.

## **Effects of Polycystic Ovary Syndrome (PCOS) on the Quality of Life of Women Ages 18-45: A Systematic Review**

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### **Background**

Polycystic ovary syndrome (PCOS) is one of the most common endocrine disorders affecting women of reproductive age. Its clinical manifestations and associated complications have multiple effects on well-being and can potentially reduce the quality of life (QoL) of these women.

### **Objective**

To systematically review the physical, mental, and social effects of PCOS on the quality of life of women ages 18-45.

### **Methods**

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) was utilized. Eligible studies included human females ages 18-45 with PCOS, contained the keywords "PCOS" and "quality of life", were published between 2016-2021, and written in English. PubMed and Medline (EBSCO) databases were searched and reports that met these criteria were accessed and



further screened. Data was extracted and risk of bias was assessed. A narrative synthesis was performed using the Synthesis Without Meta-analysis (SWiM) guideline.

## **Results**

Fourteen studies were included. Thirteen studies investigated the physical effects of PCOS; mainly obesity/high BMI, hirsutism, acne, irregular menstrual cycles, and infertility. Thirteen studies investigated the mental effects of PCOS; mainly depression, stress/distress, anxiety, lowered self-esteem/body uneasiness/poor body image, and lowered emotional well-being. Eight studies investigated the social effects of PCOS; mainly lowered social well-being, impaired relationships, and education/occupation interference.

## **Conclusion**

This review revealed that the physical, mental, and social effects of PCOS considerably reduced the QoL of women ages 18-45. However, the extent to which these factors impact QoL is relatively unknown locally. This justifies further prospective investigation on local populations.

**Health-related quality of life (HRQoL) during the COVID-19 pandemic on undergraduate students at the University of the West Indies, St. Augustine.**

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**Background**

During the COVID-19 pandemic, the shift to online education led to behavioural/lifestyle changes, which can affect health-related quality of life (HRQoL). HRQoL is an individual's perceived physical and mental health over time, and highlights how these changes can impact health. Based on trends observed, individuals can alter their lifestyles to increase HRQoL.

**Objective**

To describe the health-related quality of life (HRQoL) of undergraduate students at the UWI St. Augustine, before COVID-19 (BC) to during the COVID-19 (DC) pandemic.

**Design and Methods**

A cross sectional study of a convenience sample of UWI (St. Augustine) first and final year students was conducted in April, 2021, using a self-administered questionnaire. Behavioural and psychosocial changes towards eating meals, sleep, exercise, productivity, workload management and recreational activities were analysed, comparing BC to DC. HRQoL (BC and DC) was

measured using the EQ-5D-5L instrument which included 5 dimensions: mobility, self-care, usual activities, pain/discomfort and anxiety/depression and a visual analogue scale (EQ-VAS).

## Results

- The survey was completed by 203 respondents: 59% females, median age 21 years and 62.1% East Indian.
- From BC to DC, there were decreases observed in exercise (29.1% to 32.5% 'never exercising') and productivity (61.6% to 49.8%); significant decreases were observed in weekly fast-food and daily meal consumption, time and work management and sleep ( $p < 0.05$ , respectively).
- Significant increase in daily recreational activities (8.9% to 27.1% reporting '>6 hours daily') ( $p < 0.01$ ).
- Significant increases observed in rates of reported problems on all EQ-5D-5L dimensions except mobility ( $p < 0.05$ ).
- Anxiety/depression was the most reported dimension BC and DC; 41% reported higher levels of anxiety/depression DC.
- Mean EQ-VAS scores decreased from 74.3 to 67.2 ( $p < 0.001$ )

## Conclusions

The behavioural/lifestyle changes observed can potentially impact students' HRQoL and academic excellence. Overall, the self-reported health of the sample was lower DC than BC. However, 15% of students reported improved health status.

## **A Descriptive Retrospective Study of PSA and IPSS scores from Participants at a Men's Health Initiative**

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### **Background**

Prostate cancer is among the leading causes of death in men with early detection being the most effective means of management. Measurement of PSA levels and IPSS values are instrumental in diagnosing Prostate cancer and Benign Prostatic Hyperplasia (BPH) and as such, the identification of correlations between these variables can prove beneficial in bettering outcomes.

### **Objectives**

To describe the characteristics of men attending a primary health care screening initiative, determine the proportion of men who have elevated IPSS scores and PSA levels and determine any correlation between these scores as indicators for BPH or Prostate cancer.

### **Method**

Data was collected from all patient records from men's health screening initiatives that occurred on December 2018, January 2019 and March 2019. A total of 350 medical records were analyzed in order to record patient demographics, PSA levels and IPSS scores. Data was analyzed using SPSS software (version 27).

## **Results**

Most men who attended the screening initiative belonged to the 61-65 age group (20.57%), with more than half of the men being married (57.71%) and employed (52.57%) and of patients with comorbidities (17%), the most prevalent included Hypertension (6%) and Diabetes Mellitus (3.71%). A mean PSA level of 2.94 ng/ml and mean IPSS of 7.62 was recorded. 11.5% of the males had elevated PSA levels ( $> 4.0$  ng/ml) and 32.9% had elevated IPSS levels ( $> 8$ ). There were correlations between PSA and IPSS values ( $r= 0.161$  and  $p =0.006$ ). Age was a predictor of both IPSS and PSA values ( $r= 0.214$ ,  $p =0.000$  and  $r= 0.192$ ,  $p= 0.000$  respectively).

## **Conclusion**

Our findings are similar to those described in previous studies. However further investigations are required to fully describe the relationship between PSA and IPSS. This may assist in advancing screening measures and improving health outcomes for men with BPH and Prostate Cancer.

**Self-perceived stress among medical students in relation to their perceptions on virtual learning during the COVID-19 pandemic.**

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**Background**

During the COVID-19 pandemic, medical education was modified from traditional face-to-face learning to virtual learning. Students had to adapt to a new form of learning accompanied with the difficult medical curriculum and existing stress among medical students.

**Objective**

To evaluate the self-perceived stress among medical students in relation to their: (i) socio-demographic background, (ii) educational background, (iii) Academic behaviors and habits, (iv) perceptions on virtual learning during the pandemic.

**Method**

A cross sectional study was conducted using a three part online questionnaire which collected data from a sample of 229 Years 2-5 medical students enrolled in the School of Medicine at UWI St. Augustine. The questionnaire involved demographic variables, students' perception on virtual learning and a standardized Perceived Stress Scale (PSS).

## **Results**

Data was collected from 229 students. 126 in 2nd year, 26 in 3rd, 49 in 4th, and 28 in 5th year. The mean PSS score was  $M \pm SD$ :  $23.96 \pm 7.05$ , falling within the moderate perceived stress range. Significant differences in PSS scores were found between males and females ( $p=0.010$ ), males had a mean score of  $M \pm SD$ :  $22.25 \pm 7.289$  and females  $M \pm SD$ :  $24.81 \pm 6.817$ . PSS scores varied significantly based on total hours of screen time per day ( $p < 0.001$ ). There was a significant increase in PSS scores among students of years 3 (PSS 21.35) and 4 (PSS 25.78)  $p = 0.046$ . A moderate negative correlation ( $-0.487$ ) was found between PSS scores and perceptions on online learning.

## **Conclusion**

From overall PSS scoring, students generally appear to be coping moderately well with the transition to online learning. Care should be taken to ensure that students' perceived stress does not rise into the severe category and that measures are taken to address the negative perceptions highlighted in this study.

**An investigation into the ethnic distribution of diabetes and awareness of diabetic retinopathy among members of the Diabetes Association of Trinidad and Tobago (DATT) for the period 2020 – 2021 and determination of how COVID-19 impacted their treatment.**

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## **Background**

Diabetes mellitus (DM) is compounded by many complications of which Diabetic Retinopathy (DR) is noteworthy. In Trinidad, data released by The National Eye Survey of Trinidad and Tobago reports a large portion of the population suffers from DM, yet surveys for DR have shown that citizens are either unaware of this complication or are not regularly screened. As a multi-ethnic society, the role of ethnicity in DM is important to consider as well as the impact of the COVID-19 pandemic on screening for DR.

## **Objectives**

To determine the ethnic distribution of DM, the awareness of DR, and the impact of COVID-19 on the willingness of persons diagnosed with diabetes to present for DR screening.



## **Design and Methods**

A cross sectional study using non-probability self-selection sampling was conducted utilizing online questionnaires distributed to affiliates of the DATT via their social media platforms. The data was formatted to an excel spreadsheet and imported to SPSS for analysis. Ethical approval was granted from both the UWI Ethics Committee and the Ministry of Health.

## **Results**

283 participants completed the questionnaire of which 194 were diagnosed with DM. Indo-Trinidadians were the largest ethnic group diagnosed with both Type 1 & 2 diabetes, comprising 51.3% and 62.6% respectively. 160 participants were aware of DR of which 37.5% of diabetics were not aware. Additionally, of the 160 participants, 47.5% were never screened. 23.7% of participants avoided DR screening due to COVID-19 whereas 51.6% of participants avoided doctor visits because of COVID-19.

## **Conclusion**

Awareness of DR as a complication of DM needs to be increased, particularly among persons with diabetes through greater education efforts. The impact of COVID-19 on DR screening and accessing care for diabetes management also needs to be addressed. Combined, this can allow improvement of targeted health care services.

## **Prevalence of risk factors and lifestyle choices associated with increased cancer in participants in Trinidad and Tobago**

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### **Background**

In the Caribbean, cancer is identified as the second leading cause of death creating an immense challenge for healthcare services throughout the region. Unhealthy lifestyles contribute to the development of various cancers. This research allows for deliberate measures to be taken to combat risk factors most prevalent in Trinidad and Tobago.

### **Objective**

To explore the prevalence of risk factors for cancer among demographics, such as age, gender and ethnicity, as well as lifestyle choices such as alcohol consumption, smoking and diet in a Trinidadian population.

### **Design and methods**

This cross-sectional study documented the prevalence of risk factors for cancer among demographics and lifestyle choices of Trinidadian participants. Participants aged 18 and older with no personal history of cancer were selected by stratified random sampling. An online

questionnaire was created using SurveyMonkey software and distributed via social media platforms with an invitation for eligible persons to participate. The data was analyzed and descriptive statistics were generated using SPSS 27.

## **Results**

- A total of 478 valid responses were received. Females comprised 72% of the study population while males comprised 28%.
- Most participants fell within the 35-44 age bracket (106 persons), followed by the 18-24 age group (100 persons). At least 18.83 % of persons were > 55 years old.
- Majority of participants were either Afro-Trinidadian (38.70%), Indo-Trinidadian (28.66%) or mixed (25.52%).
- Majority of respondents neither drink nor smoke (61.1 %). Only 3.3% of respondents smoke, while 15.7% drink once a week.
- >20.0% of respondents were overweight, consumed fast food, red meats and smoked foods.
- 63.2 % of participants had no dietary restrictions.

## **Conclusion**

The most prevalent risk factors for cancer found among our target population stemmed from family history, age, diet and weight. Changes to one's diet, increased physical activity and proper weight management can help reduce their risk of developing cancer, as well as secondary risk factors.

**Epidemiology, risk factors and histopathologic characteristics of the common cancers in Trinidad.**

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**Background**

Cancer is a primary cause of death worldwide and in Trinidad and Tobago. Through studying the epidemiology, risk factors and histopathologic characteristics of common cancers, insights can be provided on which members of the population are most at risk and protective factors can be initiated to lower the likelihood of cancer occurrence. This study can also provide beneficial findings for the screening, treatment, and prevention of the most commonly occurring cancers in Trinidad and Tobago.

**Objective**

To determine the most prevalent cancers among adults in Trinidad, their histopathological characteristics and associated risk factors, and how it affects the progression of cancer.

**Design and Methods**

A retrospective study was conducted using the histopathologic reports of 110 confirmed cancer patients over the age of 18 during the period January

2020- December 2020. Data was taken from the Unit of Pathology/ Microbiology at the Eric Williams Medical Sciences Complex, using SPSS software for statistical analysis.

## **Results**

Analysis of data indicates that cancers among women (mainly breast, lung and endometrial) were predominant (63.64% females), primarily within the ages 61-70. While for males, lung, colorectal and prostate cancers were common. Overall, lung cancer was the most prevalent (29%). Most tumours were histologic Grade III (57%, mainly tumours of breast and lung), with adenocarcinoma and invasive ductal carcinoma as the main types. Significant risk factors were hypertension, history of smoking and pulmonary disease.

## **Conclusion**

Our findings indicate that early cancer screening should be advocated, especially among young women, as early detection can improve prognosis. Young individuals should be educated about risk factors as lifestyle choices greatly affect cancer incidence. Further research into risk factors and effects on histological type and tumour grade is justified as they greatly determine prognosis.

## **Love in Lockdown: Impact of COVID-19 pandemic on depression, anxiety and loneliness among young adults in Trinidad and Tobago.**

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### **Background**

The COVID-19 pandemic caused a significant impact on mental health and social interactions between young adults worldwide. In an attempt to control the spread of COVID-19, the government of Trinidad and Tobago has enforced a lockdown of non-essential activities. Consequently, these restrictions will likely have an impact on the type and quality of social interactions between young adults in Trinidad and Tobago.

### **Objective**

To investigate the impact of the COVID-19 pandemic on intimate relationships of young adults ages 18-30 years in Trinidad and Tobago.

Method: A cross-sectional, online survey study was conducted using convenience sampling.

### **Results**

Among 477 participants (47% M, 52% F), 51.7% were single, while 88.6% were heterosexual. 52.2% of respondents reported more tension, arguments and conflicts in their relationship; 60.4% reported spending more time maintaining their relationship while 52.9% of

single respondents reported having difficulty in dating. Females reported significantly higher anxiety scores ( $F(1, 476) = 14.1, p < 0.001$ ). 50.8% of females showed clinically significant scores compared to 36.5% of males. LGBT+ youth reported significantly higher scores on both depression ( $F(1, 476) = 10.6, p = 0.001$ ) and anxiety ( $F(1, 476) = 8.1, p = 0.005$ ) but similar levels of loneliness compared to heterosexual youth. There is a significant difference with loneliness ( $F(1, 476) = 10.2, p = 0.001$ ) with single youth ( $m = 13.50, sd = 2.406$ ) reporting significantly higher levels of loneliness than non-single youth ( $m = 12.80, sd = 2.353$ ).

## **Conclusion**

Respondents reported high levels of tension, arguments and conflicts. Couples reported having to spend more time maintaining their relationship while single youth reported having difficulty in dating during the pandemic. There is a greater risk among young women for anxiety, non-heterosexuals for both depression and anxiety, and single youth for loneliness. These three conditions are associated with negative mental and physical health outcomes. Targeted behavioural health and psychological interventions should focus on these groups to improve well-being during and beyond the pandemic.

## **Knowledge and Perception of Physicians About Telemedicine Technology in Trinidad and Tobago**

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### **Background**

The COVID-19 pandemic has drastically impacted and placed a strain on the healthcare systems and thus the sustainability of traditional in-person healthcare is of great concern. Telemedicine involves the use of electronic communication and virtual visits to improve the patient's health status. Telemedicine has grown rapidly over forty years and has been incorporated as part of the care provided by hospitals, private doctor offices, and workplaces. This study seeks to investigate the outlook of aspiring professionals and practitioners on telemedicine and discern its practicality and efficacy in a developing country, not only testing its sustainability during a pandemic but also post-pandemic.

### **Objective**

To find out the knowledge and perception of telemedicine among the aspiring medical professionals and practitioners at the Faculty of Medical Science, UWI towards telehealth and assess if this healthcare medium can be sustainable in developing countries.



## **Method**

The researchers conducted an institutional-based cross-sectional study which used purposive sampling to assess the population of medical professionals and registered 5th year students of the MBBS program at the University of the West Indies, St Augustine. The data was obtained from a structured self-administered questionnaire which was distributed through the participant's institutional email address. Analysis and interpretation of data were completed via SPSS program, version 27.

## **Results**

It was observed that 71% of individuals believed that telemedicine would reduce the occurrence of white coat syndrome and encourage patients to express themselves freely. Approximately 95% of participants mentioned that telemedicine would increase the availability of healthcare in rural areas while about 83% of participants believed that there would be difficulty to support the telemedical model due to limited finances and technological access in developing countries. 50.6% of the sample population believed that the quality of care of telemedicine would be inferior when compared to traditional care.

## **Conclusion**

The implementation of telemedicine in developing countries is seen as a convenient and effective approach to enable doctor-patient relations and accessibility to healthcare. The longevity of telemedicine in developing countries is quite difficult due to social and economic challenges, however, there is potential for growth as medical practitioners are willing to adapt to this model. Keywords: Telemedicine, Telehealth, Clinicians, Patient

## **Choice of Speciality among Medical Students at the Faculty of Medical Sciences, St. Augustine, UWI, Trinidad and Tobago, West Indies.**

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### **Background**

Exploring the choices of specialty among medical students has implications for workforce needs and planning.

### **Objective**

To determine the choices of specialties and its influencing factors among medical students of the Faculty of Medical Sciences, University of the West Indies, St Augustine Campus, Trinidad and Tobago (FMS, UWI).

### **Design and Methods**

A cross-sectional study was conducted by convenience sampling on medical students at the FMS, UWI using an adapted online questionnaire, between March and May 2021.

### **Results**

Overall, 273 (response rate 21.36%) students responded to the survey with 73.6% females and an average age of 22.5(SD3.3) The ten most popular responses for specialty

of first choice were unsure (9.5%), Cardiothoracic Surgery (8.7%), General Paediatrics (8.7%), General Surgery (7.5%), Neurosurgery (7.5%), Obstetrics and Gynaecology (6.7%), Cardiology (4.8%), Emergency Medicine (4.4%), Family Medicine (4.4%) and Orthopaedics (4.4%). The top five factors ranked as being very important or important in influencing their choices were, general interest in the field (95.9%), job security (81.3%), job availability (70.3%), demand for specialists in the field (69.6%) and lifestyle (67%). There were no associations between the gender and the choice of specialty ( $P > 0.05$  for all) with the exception of females choosing a Paediatric field ( $P = 0.018$ ) and males choosing Cardiothoracic Surgery ( $P = 0.003$ ).

## **Conclusions**

Some specialties are clearly more popular among medical students than others. Given the local distribution of specialist practitioners, this has implications for programme promotion and creation from an educational standpoint. Funding of adequate residency positions and granting of scholarships for high demand specialties are additional considerations.

## **Assessment of the Knowledge, Attitudes and Practices Towards Respiratory Tract Infections Among Trinidadian Population**

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### **Background**

Respiratory Tract Infections (RTIs) are defined as any infectious disease of the upper or lower respiratory tract. In the midst of the coronavirus pandemic, it is vital that persons are knowledgeable on RTIs as this can help reduce the risk of infection as this affects both the upper and lower respiratory tracts.

### **Design & Methods**

A cross-sectional assessment of the Trinidadian adult population was conducted via an online questionnaire, disseminated via Google forms, particularly testing persons' Knowledge, Attitudes and Practices towards respiratory tract infections (RTIs). The descriptive statistical analysis was performed using IBM SPSS Statistics version 27.

### **Results**

The data was collected from 366 consented study participants. Overall, 83.0% of participants knew that RTIs could be caused by viruses and bacteria. The knowledge of RTI transmission through airborne/aerosols was agreed by 83.6% participants and 70.4% agreeing that RTIs can be spread by physical contact with an infected person. When asked about protective practices for persons

against RTIs, 87.2% of participants agreed wearing a face mask and 24.59% of respondents being strongly opposed or neutral to mask wearing. About 78.96% strongly disagreed that they should continue going to work as normal if they suspected having the Covid-19 virus and 82.51% strongly agreed that if they present with symptoms of Covid-19, they should get tested at a health care institution and self-isolate.

## **Conclusion**

Although the KAPs of Trinidadians toward RTIs are mainly satisfactory, some persons are not aware of the full risks associated with contracting RTIs, resulting in poor attitudes and practices toward RTIs and their prevention. More information about RTIs should be provided to Trinidadian citizens to foster better attitudes and practices toward its prevention, especially in light of the Covid-19 Pandemic.

Key words: KAP, RTIs, Trinidadian population

## **A Study on The Knowledge, Awareness, Perceptions and Behaviour of Students from The University of The West Indies, St. Augustine, (UWI-STA) Towards Climate Change and its Impact on Human Health**

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### **Background**

Human activities have accelerated climate change (CC) dramatically in the past 40 years, 2020 tied with 2016 for warmest year. According to the WHO, CC leads to 150,000 deaths annually. Studies show that persons are more motivated to learn about and act against CC if it personally affects them. Education is among the most significant factors affecting CC awareness. Thus, examining and promoting awareness of CC health linkages is key to stimulating concern and combative action.

### **Objective**

To determine students' knowledge, awareness, perceptions, and behaviour (KAPB) from different faculties of the University of The West Indies, St. Augustine (UWI-STA) on CC and its impact on human health in the Caribbean, examining utilized sources of information to identify methods to improve awareness of the CC-human health relationship.

## **Method**

A cross-sectional study was conducted through an online questionnaire, as Google forms, using voluntary response and snowball sampling. KAPB, health impact and curriculum coverage were examined.

## **Results**

Most respondents were generally knowledgeable about CC (88.6%) but few (10.6%) fully understood it. All faculties were knowledgeable about health impacts of CC with more than 50% respondents recognizing increased prevalence of several health issues impacted by CC. However, they misjudged effects on the prevalence of airborne diseases and to a lesser extent, non-communicable diseases, indicating a lack of deeper understanding. In each faculty, less than 50% respondents covered the link between CC and health with only a minority (6.667%) of FMS respondents covering CC itself let alone its health linkages (3.333%). Apart from UWI's coverage of CC and health, the primary information source was media (25.19%), seen especially in FMS.

## **Conclusion**

UWI-STA students exhibited high levels of knowledge about health impacts of climate change. However, knowledge primarily stemmed from the media. Greater curriculum coverage of CC and health at The UWI-STA, particularly the FMS, should be considered.

## **The Ability of Family Physicians in The Caribbean to Promote Planetary Health Concepts and the Challenges of Implementing Change in Practice.**

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### **Background**

The world has entered an anthropogenic age characterized by biodiversity damage, large-scale land degradation and increased burden of communicable and non-communicable diseases. Research has shown a correlation between this global decline and human health which suggests that a spotlight needs to be placed on planetary health. Family Physicians (FPs) are the best candidates to promote planetary health policies as they hold a unique position in society as community leaders. Studies state that FPs can play a potentially healing role in patients' health and planetary health.

### **Objective**

To explore ways in which FPs can promote planetary health policies and treatments and identify the challenges to the implementation of planetary health-conscious treatments and policies within the Caribbean.

### **Method**

A census study of family physicians registered with the Caribbean College of Family Physicians currently working in the Caribbean region. Data was collected using a



36-item questionnaire, which was structured to test knowledge, opinions and practices over a period of 1 month,

## **Results**

8 respondents completed the questionnaire. Overall, 71.4% highlighted a lack of knowledge about planetary health. 57.1%, considered themselves advocates for planetary health / climate change, while 28.6 % were unsure and 14.3% did not. 42.9%, did not believe their local health care system prioritized optimisation. 85.7% indicated that they have not taken steps to create more environmentally sustainable health systems. The most popular barriers were poor patient adherence to planetary health-oriented treatments (100%), lack of time during consultations (85.7%), lack of support from the government (85.7%), lack of support from peers (85.7%) and patient disinterest in discussing planetary health (85.7%).

## **Conclusion**

Most participants lacked knowledge about planetary health and their role in the promotion of planetary health policies. However, a simple majority self-identified as advocates for planetary health and climate change and were able to identify the challenges to implementing change in practice.

## **An Investigative Study on the Perception and Acceptability of a COVID-19 Vaccine of the Public in Trinidad and Tobago**

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### **Background**

The COVID-19 pandemic has adversely increased global morbidity and mortality rates and affected economies and livelihoods. To control this pandemic, mass vaccination is required. Many countries have reported varying levels of COVID-19 vaccine acceptance. The perceptions and levels of acceptance of the vaccine in Trinidad and Tobago are unknown.

### **Objective**

To assess the perceptions and acceptability of a COVID-19 vaccine and recommend measures to promote COVID-19 vaccine acceptance among the adult population of Trinidad and Tobago.

### **Design and Methods**

A cross-sectional study was conducted using an online survey which was distributed via social media platforms between April-June 2021. A convenience sample of persons residing in Trinidad and Tobago, aged 18 years, completed the survey. Descriptive statistics, chi-square and logistic regression analyses were conducted using SPSS v.27.

## **Results**

Of 927 respondents, 78% believed that vaccines were effective against infectious diseases. Almost eighty-two percent (82%) agreed to accept the COVID-19 vaccine and those who believed that vaccines were effective were more likely to agree to accept this vaccine [OR: 7.34; (95% CI: 4.57, 11.80)]. The most common reasons for agreement to vaccine acceptance were protection of oneself (94%) and others (90%) while those who would not agree to vaccine acceptance expressed concerns about the pace of its development (84%), its side effects (82%) its safety (76%) and effectiveness (70%). The World Health Organization (WHO) was a trusted source of information on the vaccine in 86% of respondents and 69.5% preferred to receive information about their vaccine concerns from the Ministry of Health.

## **Conclusion**

Agreement to accept the COVID-19 vaccine was high among adults in Trinidad and Tobago. Nevertheless, concerns remain about vaccine development, side effects, safety, and effectiveness. Communication with the public on these topics by the Ministry of Health would help to alleviate concerns and further promote COVID-19 vaccine uptake.

## **The awareness, perception, and attitude regarding COVID-19 and infection control among Trinidad and Tobago dentists.**

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### **Background**

COVID-19 is a highly infectious virus that became a pandemic in November 2020. The respiratory pathogen SARS-CoV-2 has been identified as the causative agent. The virus has affected the lives of the public, especially those involved in the healthcare profession. COVID-19 has been detected in saliva and the oral cavity. Worldwide, dentists have been severely affected as they are in close contact to patients and saliva. COVID-19 displays flu-like symptoms and respiratory problems. With the onset of the pandemic, new regulations to the dental profession have been implemented such as; personal protective equipment (PPE), strict protocols of regular handwashing, a decrease of aerosol-generating procedures (AGPs) and temperature checks.

### **Objective**

To assess the level of awareness, perception, and attitude regarding COVID-19 and infection control among Trinidad and Tobago dentists.

### **Design and Methods**

A cross-sectional survey was conducted online to collect data consisting of both open and close-ended questions.

## **Results**

Of the 587 registered dentists, 192 responses were received consisting of 53.6% females (n=103) and 46.4% males (n=89). The most common age range of the participants were in the 30-39 age group. 48.4% (n=93) of the participants ranked their awareness of the virus as being 'above average' with the majority knowing incubation time, transmission-routes, preventative measures, and symptoms of the virus. With respect to dentists' attitude, 52% dentists reported feeling anxious and 33% feeling fearful. Consequently, 69.3% (n=133) suspended their practices to protect loved ones, patients, and staff; 44.8% (n= 86) reduced AGPs. 98.4% (n=189) of dentists implemented additional preventative measures to prevent the spread of COVID-19.

## **Conclusions**

There was successful implementation of effective preventative measures in combatting COVID-19. However, more effort is required to increase knowledge and awareness within the dental community. Additionally, due to the high levels of anxiety and fear reported, mental health of dentists needs to be carefully considered.

## **An Investigation of the Knowledge, Attitudes and Practices of Specific COVID-19 Public Health Regulations and Precautions Among Students of The University of the West Indies, St. Augustine Campus (The UWI STA).**

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### **Background**

After the COVID-19 pandemic was declared, the government of Trinidad and Tobago (T&T) began instituting regulations and precautions, following The WHO guidelines. Evidently, the second wave in T&T was spread by persons ages 25-49, attributed to their highly social lifestyle and their susceptibility to showing no to mild symptoms, whilst being infectious. Investigation to determine if this age group is compliant is required for successful prevention and control of the spread of the virus.

### **Objective**

To assess the knowledge, attitudes and practices of The UWI STA students toward the public health (P.H.) regulations and precautions enforced as a result of the COVID-19 pandemic and inquire whether they intend to continue the implementation of these practices when COVID-19 regulations are relaxed.

## **Design and Methods**

Evaluations of The UWI STA students were conducted using an online survey containing questions relating to KAP of specific COVID-19 P.H. regulations and precautions. IBM SPSS software was used to conduct statistical analysis.

## **Results**

Data collected among 8 faculties indicated:

- Social media was the most prevalent source of information.
- 88.3% exhibited Good Knowledge Scores (GKS) for specific regulations, precautions, and COVID-19 pathophysiology, with equal scoring between genders and graduate levels.
- 97.6% exhibited Positive Attitude Scores (PAS) towards COVID-19 regulations, where those with Negative Attitude Scores (NAS) tended to be male, 18-27, or postgraduates.
- 52.4% had Poor Practice Scores (PPS), tending to be male, >37, or from a non-medical faculty.
- Knowledge and Attitude Scores were statistically dependent (p-value of 0.01), whereas Knowledge was independent of Practice Scores (p-value of 0.127) and Attitude Scores was independent of Practice Scores (p-value of 0.074).
- 75.8% claimed continuation of  $\geq 3$  practices, with frequent hand washing/sanitisation being most popular.

## **Conclusion**

While the knowledge and attitudes of COVID-19 public health regulations and precautions among the UWI STA students are generally good, their practices require improvement. The intention to continue practices is prevalent in >70.0% of the population.

## **COVID-19: Knowledge, Attitudes and Practices of Mask Use Among Students of the University of the West Indies, Trinidad and Tobago**

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### **Background**

Globally, facemasks have been employed as a non-pharmaceutical intervention for reducing transmission of COVID-19, by acting as a cost-effective physical barrier against infective respiratory droplets. However, facemasks have endured an arduous journey in proving their efficacy as a competent mitigator in the spread of severe acute respiratory syndrome coronavirus 2.

### **Objective**

To study the knowledge, attitudes and practices of mask-use for COVID-19 among students of the University of the West Indies, St Augustine, Trinidad and Tobago.

### **Design and Methods**

A cross-sectional study was undertaken. A questionnaire with 34 questions to determine knowledge, attitudes and practices of mask-use was distributed via social media platforms, during March- May 2021.



## **Results**

Three hundred and thirty-five responses were received. The study found that 94.9% of respondents believed wearing facemasks help to reduce spread of COVID-19. There was no gender difference ( $p=0.240$ ), however there were differences in awareness among Faculties ( $p=0.034$ ). Ninety percent of students indicated that facemasks should be worn in public spaces at all times; the majority of students from Medical Sciences strongly agreed to this statement and the highest proportion of students strongly agreeing to this statement came from Medical Sciences. One respondent (0.3%) did not have access to facemasks. One-third (33.3%) of respondents changed/washed their facemasks after one day of use, while one-half believed masks should be changed immediately after every use. Most respondents from Medical Sciences stated they change their facemask immediately after use.

## **Conclusion**

There appears to be a positive attitude and adequate knowledge towards mask-wearing among the students surveyed. However, there was some mismatch in adherence to prescribed practice. Improper mask use compromises the effectiveness of the mask, which is paramount considering the virus' airborne nature and emerging variants. There is therefore a need to periodically reinforce best practice guidance concerning mask-use among the student population.

## **Knowledge, Attitudes and Practices towards the flu (influenza) vaccine and Covid-19 vaccines amongst University Staff and Students in Trinidad and Tobago.**

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### **Background**

Vaccines prevent and control public health outbreaks. Once administered, it builds up the immune system by creating antibodies without showing signs or symptoms of being sick. If the COVID-19 vaccine is not utilized, effective herd immunity will not occur, thus straining health systems in The Bahamas and Trinidad and Tobago, leading to more vulnerable individuals (elderly, immunocompromised) suffering the consequences.

### **Objective**

Vaccine hesitancy is a major hindrance in attaining herd immunity during the Covid-19 pandemic. We evaluated the knowledge, attitudes and practices of University staff and students towards the influenza and Covid-19 vaccines.

### **Design and Method**

A convenience sample was electronically accessed, by issuing a 29 question survey to staff and students

at The UWI, St. Augustine, via the Marketing and Communication Office. Data was analyzed using IBM SPSS Statistics 27. Descriptive statistics were reported and Chi-squared tests sought to detect significant association between demographics and measured variables. A  $p$ -value  $< 0.05$  was considered significant.

## **Results**

Among 357 respondents, 84.7% thought vaccines provided protection, 98.6% were previously vaccinated against a disease and 71.1% favored compulsory vaccinations. Only 43.7% thought vaccines were safe and 56.9% were willing to be vaccinated against Covid-19. More students (59.5%) were vaccinated against influenza. Participants aged 18-24 had significantly higher incidence of vaccinations ( $\chi^2(2, N=356) = 9.342, p = 0.009$ ). Participants aged 45 and older showed greater knowledge on the number of deaths prevented by vaccination ( $\chi^2(2, N=3440) = 7.890, p = 0.019$ ). The major reasons for vaccine hesitancy are uncertainty towards safety and efficacy.

## **Conclusion**

At least 71.1% of participants are in favor of compulsory vaccinations. Younger participants showed higher vaccination rates against the flu and older participants had a greater understanding of the benefits of vaccines. Vaccine hesitancy can be addressed by increasing knowledge and awareness campaigns, particularly around the Covid-19 vaccine.