

2021 NATIONAL HEALTH RESEARCH CONFERENCE

BUILDING RESILIENCE THROUGH
RESEARCH IN A PANDEMIC



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2021 NATIONAL HEALTH RESEARCH CONFERENCE

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EDITORIAL

After the success of the Inaugural Trinidad and Tobago National Health Research Conference in 2020, all stakeholders anxiously looked forward to the hosting of the Sequel. Admittedly, there was some apprehension by the Planning Committee regarding whether the COVID-19 pandemic would have resulted in a decrease in research productivity and jeopardize the Conference.

However, we were very pleased when it was confirmed that Trinidad and Tobago researchers were as resilient as they were innovative and resourceful in the methodologies that they used to address their research questions. For example, some who were unable to obtain approval to collect data face-to-face, pivoted to online platforms. Indeed, our Scientific Sub-Committee conducted its rigorous review of the abstracts that were submitted to the Conference and selected over 70 for presentation.

The Conference programme includes several research studies that addressed COVID-19 including issues such as Vaccine Uptake and Hesitancy; its Impact on the Populations' Mental Health and Quality of Life; as well as the challenges faced in adapting to the New Normal. It was heartening to note that local researchers fulfilled their responsibility to conduct priority research providing timely evidence for use by decision makers as they develop policies and programming to manage the pandemic. Importantly, COVID-19 was not the only health concern that the researchers addressed. The programme is replete with papers on other Infectious Diseases, Non-Communicable Diseases (NCDs), Pharmacy, Oral Health, Clinical Investigations and Laboratory Studies. It is also clear that the high standard and variety of research that was showcased in 2020 was matched, if not exceeded, this year.

A good measure of the standing of a Conference is its ability to attract three luminaries to deliver Feature Presentations. I am pleased that the Planning Committee was successful in securing Professor David R. Williams as the International Guest Speaker. Professor Williams has received several international research accolades and is Chair at the School of Public Health, Harvard University. He will address "Resilience for Mental Health in the Age of COVID".

Professor Christine Carrington, Molecular Geneticist and Virologist, and celebrated University of the West Indies (UWI) academic is the second Feature Speaker. She is renowned for her ground-breaking research in evolutionary and ecological factors involved in viral emergence and transmission. We look forward to her presentation on "Lessons from SARS-CoV-2 Genetic Surveillance in the Caribbean". The Third Feature Speaker is Professor Clive Landis, Pro Vice-Chancellor and Principal, The UWI, Cave Hill. Professor Landis is one of the Caribbean's leading Immunologists and Chair of the UWI COVID-19 Task Force. He will be addressing "The Triple 'C' Threat to the Caribbean: Chronic Disease, Climate Change, and COVID-19".

This year's Conference is again being co-hosted by our institutions involved in the conduct and use of research findings. They include the Ministry of Health, The UWI, University of Trinidad and Tobago, University of the Southern Caribbean, and the Regional Health Authorities. They are very proud of the impressive programme, and I must highlight the efforts of the Planning Committee to ensure the success of the Conference. Delegates can look forward to the presentations and ensuing discussions of quality health research and to establishing collaborations with colleagues from other institutions.

I am assured that the 2021 National Health Research Conference will contribute significantly towards the strengthening of the national health research culture.

Professor Donald T. Simeon

Chairman, Inter-Institution Planning Committee for the National Health Research Conference
Director, Caribbean Centre for Health Systems Research and Development, UWI, St Augustine

Inter-Institution Planning Committee

Many thanks to all members for their invaluable support and contributions toward planning and making the National Health Research Conference a success.

Chairperson: Professor Donald Simeon

Director, Caribbean Centre for Health
Systems Research and Development
The University of the West Indies, St. Augustine

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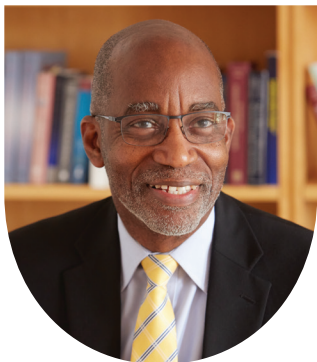
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International Guest Speaker



PROFESSOR DAVID R. WILLIAMS

Professor David R. Williams

Florence and Laura Norman Professor of Public Health and Chair, Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health

Title of Presentation:

Resilience for Mental Health in the Age of COVID

Dr. Williams is the Florence and Laura Norman Professor of Public Health and Chair, Department of Social and Behavioral Sciences, at the Harvard T.H. Chan School of Public Health. He is also a Professor of African and African American Studies and Sociology at Harvard University. Previously, he served 6 years on the faculty of Yale University and 14 years at the University of Michigan. A national of St Lucia, Dr. Williams attended and taught at the St. Lucia SDA Academy and completed his undergraduate education at the University of the Southern Caribbean in Trinidad. He then traveled to the U.S. and earned master's degrees from Loma Linda University and Andrews University, and a Ph.D. in Sociology from the University of Michigan.

Dr. Williams is an internationally recognized authority on social influences on health. He has been invited to keynote scientific conferences in Europe, Africa, Australia, the Middle East, the Caribbean, South America and across the U.S. The author of more than 500 scientific papers, his research has enhanced our understanding of the ways in which race, socioeconomic status, stress, racism, health behavior and religious involvement can affect physical and mental health. The Everyday Discrimination Scale that he developed is the most widely used measure of discrimination in health studies.

He has received numerous honors and awards. He was elected to the National Academy of Medicine in 2001, the American Academy of Arts and Sciences in 2007 and to the National Academy of Sciences in 2019. He has also received lifetime distinguished contribution awards from the American Sociological Association, the American Psychological Association and the New York Academy of Medicine. He has been ranked as one of the top 10 Most Cited Social Scientists in the world in 2005 and as the Most Cited Black Scholar in the Social Sciences, worldwide, in 2008. In 2014, Thomson Reuters ranked him as one of the World's Most Influential Scientific Minds.

With funding from the National Institutes of Health and the sponsorship of the World Health Organization, Dr. Williams directed the South African Stress and Health Study, the first nationally representative study of the prevalence and correlates of mental disorders in sub-Saharan Africa. He was also a key member of the scientific team that conducted the largest study of the mental health of the black population in the U.S. and the first U.S. health study to include a large national sample of Blacks of Caribbean ancestry. He has also worked on ethnic inequities with the Toronto Public Health Department, the National Health Service in the U.K. and the Pan American Health Organization.

Dr. Williams has been involved in the development of health policy at the national level in the U.S. He has served in an advisory capacity to Democratic and Republican administrations and on 10 committees for the National Academy of Medicine. He has also played a visible, national leadership role in raising awareness levels of the problem of health inequities and identifying interventions to address them.

Feature Speakers

PROFESSOR CHRISTINE CARRINGTON

Professor of Molecular Genetics and Virology and
Head of the Department of Preclinical Sciences, Faculty of Medical Sciences,
The University of the West Indies, St. Augustine

Title of Presentation:

***Lessons from SARS-CoV-2 Genetic Surveillance in the Caribbean:
What now? What next?***

Professor Christine Carrington holds a BSc in Biotechnology and a PhD in Molecular Virology, both from the University of London. Her expertise and research focus is evolutionary and ecological factors involved in viral emergence and transmission, especially vector-borne RNA viruses. Her work to date includes studies on dengue, chikungunya and other mosquito-borne viruses, rabies virus and bat coronaviruses. Professor Carrington served as Deputy Dean for Graduate Studies and Research for the Faculty of Medical Sciences from 2007 to 2014. In 2008, she was recognized as one of the UWI's 60 leading academics under 60 and in 2012 received a UWI award for Outstanding Research Mentorship. She is a member of the UWI COVID-19 Task Force, serves on the Technical Advisory Group on Immunisation to the Trinidad and Tobago Ministry of Health and represents Trinidad and Tobago on the Board of Governors of the International Centre for Genetic Engineering and Biotechnology. Her laboratory (which was recently designated a PAHO reference sequencing laboratory) has been carrying out genomic surveillance for SARS-CoV-2 for 17 Caribbean countries on behalf of the Caribbean Public Health Agency and the Trinidad and Tobago Ministry of Health.



PROFESSOR CLIVE LANDIS

Pro Vice-Chancellor and Principal, The University of the West Indies, Cave Hill

Title of Presentation:

***The Triple 'C' Threat to the Caribbean:
Chronic Disease, Climate Change, and COVID-19***

Professor Clive Landis, who joined The UWI in 2004, has served as Deputy Principal of the Campus from 2015-2019; as University Pro Vice-Chancellor for Undergraduate Studies from 2019-2021 and Chair of the UWI Zika Task Force in 2016. He is also currently Chair of the UWI COVID-19 Task Force, having assumed the role since February 2020. Professor Landis assumed the

Principalship of the Cave Hill Campus for a period of five years with effect from August 01, 2021. After relocating from Imperial College London, Professor Landis took up a post as Senior Lecturer in the George Alleyne Chronic Disease Research Centre (GA-CDRC) at Cave Hill. In 2009, he was promoted to the rank of Professor in Cardiovascular Research and was appointed Director of the GA-CDRC in 2013. Professor Landis has published over 150 scientific papers and conference presentations, the majority arising from research conducted at the Edmund Cohen Vascular Research Laboratory that he founded as an annex at the GA-CDRC. His research has focused on the role of inflammation during wound healing, vascular disease, and recovery post-surgery. A more recent interest has been viral and public health research: established viruses such as HIV as well as emerging viruses such as ZIKV and SARS-CoV-2. As Chair of the COVID-19 Task Force, Professor Landis has published policy papers and technical reports analyzing the comparative effectiveness of the pandemic response by CARICOM. He has pledged to continue his chairmanship of the Task Force until the pandemic is declared over by the World Health Organization.

Thursday, November 18, 2021

DAY 1

OPENING CEREMONY | 8:30 – 10:00 AM



Welcome

Professor Donald T. Simeon

Director, Caribbean Centre for Health Systems Research and Development



Opening Remarks

Professor Terence Seemungal

Dean, Faculty of Medical Sciences, The University of the West Indies, St. Augustine



Remarks

Dr Colwick Wilson

President, University of the Southern Caribbean



Remarks

Professor Prakash Persad

President, University of Trinidad and Tobago



Remarks

Professor Brian Copeland

Pro Vice-Chancellor and Campus Principal, The University of the West Indies, St. Augustine



Feature Presentation by International Guest Speaker

Resilience for Mental Health in the Age of COVID

Professor David R. Williams

Florence and Laura Norman Professor of Public Health and Chair, Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health



Address

The Honourable Terrence Deyalsingh

Ministry of Health, Trinidad and Tobago

Question and Answer

SESSION 1 | 10:05 – 11:00 AM

COVID-19 – Vaccine Uptake and Hesitancy



Feature Speaker

Lessons from SARS-CoV-2 Genetic Surveillance in the Caribbean: What now? What next?

Professor Christine Carrington

Professor of Molecular Genetics and Virology and Head of the Department of Preclinical Sciences, Faculty of Medical Sciences, The University of the West Indies, St. Augustine

O1 Acceptance and Attitudes towards COVID-19 Vaccines among the Adult Population in Trinidad and Tobago

D Dwarica, B Sa, T Leotaud, S Hunte, MA Ivey, V Victor, DT Simeon, A Majumder, T Seemungal

O2 An Investigative Study on the Perception and Acceptability of a COVID-19 Vaccine of the Public in Trinidad and Tobago

A Ali, A Dosumu, A Governor, A Manduru, A Mohammed, A Nabbie, A Paul, A Trim, K Rocke, J Mohan

O3 “It is Too Much, No More Vaccine Stories, Just Give me the Jab”: A Qualitative Study Conducted in Trinidad and Tobago

D Sealy, D Cassie, L Campbell-George, D Phillips, S Warner, T Bisnath

O4 Knowledge, Attitudes and Practices towards the Flu (Influenza) Vaccine and COVID-19 Vaccines amongst University Staff and Students in Trinidad and Tobago

J Phillips, J Dassyne, J Marjadsingh, J Maturasingh, K Hanna, K Narinesingh, K Narine, K Deonarine, S Jankie, S Singh

Question and Answer Session 1

SESSION 2 | 11:00 – 11:50 AM

COVID-19 – Adapting to the New Normal

O5 Positive Influences of the COVID-19 Pandemic on Community Dwelling Adults in Trinidad and Tobago: A Cross Sectional Study

S Motilal, R Khan, G St. Bernard, MA Ivey, SD Reid

O6 A Cross-Sectional Analysis of COVID-19 Knowledge, Attitudes and Practices in Grenada

T Frame, S Rodrigo, S Nixon, C Richards

O7 Lifestyle and Academic Changes of UWI Students in Response to COVID-19: Implications for Health

E Hosein, D Bissoon, D Weekes, D Boodram, D Gracen, D Ramkisson, E Jennings, E Belfon, H Bailey, MA Ivey

O8 Cultural Competence among Healthcare Professionals during COVID-19 Pandemic in Trinidad and Tobago: Implications for COVID Care Resiliency

SJ Chand, L Campbell-George, D Cassie, M Baksh

Question and Answer Session 2

Post-Session Activity 1

SESSION 3 | 11:50 AM – 12:25 PM

Non-Communicable Diseases

O9 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

K Ramnarace, K Lokai-Singh, K Maharaj, K Rampersad, K Nandlal, K Jaggasar, K Ramcharan, K Singh, A Dhanoo, L Benjamin

O10 The Epidemiology of End Stage Renal Disease in Patients with Renal Disease in Eric Williams Medical Sciences Complex

N Ezinne, FS Mohammed, F Ali, F Farrell, G Ramoutar, E Loutan, F Christopher, F Roberts, E Rampersad

O11 The Impact of the COVID-19 Pandemic on Risk Factors for Chronic Non-Communicable Diseases among Members of Staff at The University of The West Indies, St. Augustine Campus

D Murray, T Millard, U Dodoll, V Rajkumar-Singh, V Ramsaran, V Ramlochansingh, V Suklal, V Heeralal, V Mahabir

O12 Health Facility-based Weight Control Program was Effective in Reducing Body Size in Overweight and Obese Children

E Lloyd, DT Simeon

Question and Answer Session 3

SESSION 4 | 12:25 – 1:10 PM

Clinical Studies I

O13 Disseminated Histoplasmosis among Patients Attending an HIV Treatment Centre in Trinidad
GG Boyce, LO Lavia, RJ Edwards

O14 Sexually Transmitted Infections in HIV Infected Women at Medical Research Foundation of Trinidad and Tobago
S Soyer-Labastide, M Parboo, N Lyons, J Edwards

O15 Identifying Factors Associated with Frequent Presentations of Asthma and COPD Exacerbations in the Emergency Department
I Clarke, DT Simeon

O16 Cost Utility Analysis for Peritoneal Dialysis versus Hemodialysis for Trinidad and Tobago: Preliminary Findings
H Bailey, S Sanchez, S Teelucksingh, R Ali, G Legall

Question and Answer Session 4

SPONSORED TALK | 1:10 – 1:50 PM

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Denise De La Rosa

British Medical Journal (BMJ)

Question and Answer for Sponsor

Day 1 Closing Remarks

POSTER PRESENTATIONS IN 3D HALL

Friday, November 19, 2021

DAY 2

WELCOME & FEATURE PRESENTATION | 8:30 – 8:55 AM

Welcome



Feature Speaker

The Triple 'C' Threat to the Caribbean: Chronic Disease, Climate Change, and COVID-19

Professor Clive Landis

Pro Vice-Chancellor and Principal, The University of the West Indies, Cave Hill

SESSION 5 | 8:55 – 9:40 AM

Quality of Life

O17 Using EQ-5D to Compare the Health-Related Quality of Life (HRQoL) of UWI Students: Pre-COVID-19 Pandemic vs During COVID-19 Pandemic

E Hosein, D Bissoon, D Weekes, D Boodram, D Gracen, D Ramkisson, E Jennings, E Belfon, H Bailey, MA Ivey

O18 Coping Mechanisms and Knowledge of their Health Impact: A Cross-sectional Study of University Students

S Motilal, S Kumar, S Muhammad, S Sooknanan, S Rampersad, S Ramkissoo, S Sarker, S Mann, MA Ivey

O19 Knowledge, Awareness, Perceptions and Behaviour (KAPB) of Students of the University of the West Indies towards Climate Change and its Impact on Human Health

M Karan, M Ramdhanie, M Soogrim, M Daniel-Abdool, M Baboolal, M Sinanan, M Marbella, M Sheik, MA Ivey, C Oura

O20 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 Lee-Isidore, D Carr, D Fyzoudeen, D Indoi, D Kemp, D Mohan, D Ramdeo, D Ramkay, S Nayak

O21 Self-Management Support Needs of Caribbean Adolescent Girls and Young Women with Polycystic Ovary Syndrome: A Qualitative Study

A Moore

O22 The Elderly's Experience with Health Promotion in the Public Health System: Preliminary Results

C-M Alexander, MA Ivey

Question and Answer Session 5

SESSION 6 | 9:40 – 10:15 AM

Cancers & Mental Health

O23 Epidemiology, Risk Factors and Histopathologic Characteristics of the Common Cancers in Trinidad

S Umakanthan, N Dipnarine, N Mohammed, N Sagar, N Singh, N Rennie, N Maharaj, N Maharaj, N Mohan

O25 The Relationship Between Characteristics of Medical Doctors in Trinidad & Tobago and Self Reporting of Mental Health Conditions, Perceptions of Support Mechanisms and Work Environment

C Ezeokoli-Ashraph, M Blackman, G Hutchinson

O26 The Psychological Burden of Bullying – A Retrospective Chart Review on the Effects of Bullying on the Mental Health of Patients Attending the Child Guidance Clinic Port of Spain from June 2016 to May 2017

C Ezeokoli-Ashraph, S Shafe, G Hutchinson, J Sharpe

Question and Answer Session 6

SESSION 7 | 10:15 – 11:00 AM

Pharmacy & Oral Health

O27 Patients' Attitudes, Beliefs and Concerns Regarding Medication Disposal in Trinidad

S Jankie, N Barsatee, V Dookhan, K Sookdeo, S Hernandez, A Villarroel Stuart

O28 Coronavirus Disease of 2019 Negatively Impacts Drug Availability and Prices in Trinidad, West Indies

S Jankie, A Villarroel Stuart, S Mohammed, K Sewdass, LM Pinto Pereira

O29 Community Pharmacists' Knowledge, Practice, and Perception of Asthma Care in Trinidad

S Jankie, A Villarroel Stuart, S Mohammed, K Sewdass, S Sakhamuri, LM Pinto Pereira

O30 Preliminary Findings regarding Dental Health Behaviours and Oral Health Related Quality of Life among Adult Dental Patients at Two UWI Clinics In Trinidad

RS Naidu, H Bailey, A Harracksingh, G Roopnarine, I Sagewaan

O31 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

C Badoo, C Ragoo, C Joseph, D Aking, D Basdeo, E Adeyemi, E Bissoon, J Sealey

Question and Answer Session 7

Post-Session Activity 2 / Stretch Break

SESSION 8 | 11:10 – 11:50 AM

Laboratory Studies

O32 Genomic Surveillance of SARS-CoV-2 in the Caribbean

NSD Sahadeo, V Ramkissoon, S Hill, A Brown-Jordan, A Ramjag, N Mohammed, R Singh, S Nathaniel, A Hinds, N Nandram, R Parasram, A Andrewin, R Sealey-Thomas, P McMillan, A Oyinloye, K George, I Potter, J Lee, D Johnson, S Charles, N Singh, J Bisesor-McKenzie, H Laws, S Belmar-George, S Keizer-Beache, S Greenaway-Duberry, N Ashwood, L Edghill, L Indar, JE Foster, C Oura, O Pybus, N Faria, J St. John, G Gonzalez-Escobar, CVF Carrington

O33 Confirming the Feasibility of an Open Source, "Direct" RT-qPCR Method for Reliable Detection of SARS-CoV-2 RNA in Clinical Samples

CAL Oura, L Blake, A Brown Jordan, E Bruce, MG Mills, M Huang, O Hyrien, C Mitchel, S Pettit, J Botten, KR Jerome

O34 Identifying Pathogenic Mycobacterium Species in Tilapia via Molecular Analysis

L Blake, C Oura, A Phillips Savage

O36 Non-invasive Measurement of Microvascular Function to Determine Age-Related Differences

T Ramnanansingh, S Singh, J Johnson, S Rocke, V Sundaram, C Carrington, J Addae

O37 Glycemic Control, Insulin Resistance and Beta Cell Function in Patients with Type 2 Diabetes Adherent to Metformin Monotherapy in Trinidad

Y Clement, S Singh, S Motilal, M Francis, A Forde

Question and Answer Session 8

SPONSORED TALK | 11:50 AM – 12:30 PM

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Development of the Integrated POCT Model and its Contribution to Critical Patient Monitoring (COVID-19)

Davide Colombo, Werfen Instrumentation Laboratory
on behalf of **Medical Marketing Company Limited**

Question and Answer for Sponsor

WEBINAR | 12:30 – 2:00 PM

Sustaining Interprofessional Education and Collaborative Practice through an Evidence-Based Approach in a Pandemic

The PAHO/WHO Collaborating Centres at University of Illinois in Chicago and The University of the West Indies (Mona and St. Augustine campuses) collaborated with Duke University to host a three-part series of Webinars on Interprofessional Education and Collaborative Practice (IPECP).

This third webinar will:

- Examine how IPE is designed to work within health systems
 - Facilitate personal reflections on experiences of interprofessional practice in the clinical environment
 - Create opportunities for sharing experiences/lessons learned about IPECP during the COVID-19 era
 - Examine opportunities for strengthening IPECP action, research and practice
 - Examine the core competencies required of healthcare professionals and leaders in facilitating IPECP in the COVID-19 era
-

CLOSING CEREMONY | 2:00 – 2:30 PM

AWARDS CEREMONY

Lifetime Research Award

Prizes:

Early Career Researcher Prize
Student Researcher Prize
Best Oral Presentation
Conference Delegates' Choice - Best Poster

Closing Remarks and Vote of Thanks

POSTER PRESENTATIONS



COVID-19: PUBLIC HEALTH

P1: 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)

H Boodram, I Hosein, H Mohammed, J Mohammed, I Montserin, I Ogir, I Oguneme, I Segulam, C-M Alexander

P2: COVID-19: Knowledge, Attitudes and Practices of Mask Use among Students of the University of the West Indies, Trinidad and Tobago

S Hoosaney, S Indoi, S Juman, S Koon Koon, S Kubairsingh, S Manwah, S Mohammed, S Rampersad, I Dialsingh, S Pooransingh

P3: A Systematic Review of the Primary Therapeutic Interventions used in COVID-19 Patients and the Risk of Reinfection

S Arjoonsingh, S Cedeno, S Kissoonlal, S Kitsingh, S Mohammed, S Samlal, S Sooknana, AF Williams

P4: Air Pollution, COVID-19 and Public Health in Trinidad and Tobago: Justification for Revision of the Way we Look at Ambient and Indoor Air Quality

H Baboolal

P5: 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

R Ramdath, R Ingraham, S Mohammed, S Banarsee, S Mahabir, S Destia, S Mohammed, S Mohammed, E M Davis

COVID-19: MENTAL HEALTH

P6: Impact of COVID-19 on Medical Students' Clinical Training, their Learning Behaviours, Perceived Stress and Performance as Future Medical Professionals

A Ali, A Smith, A Wickham, B Johnston, B Stowe, B Cross, B Seenath, B Rajkumar, T Seemungal, B Sa

P7: The Impact of the COVID-19 Pandemic on the Mental Health of Medical Students in Trinidad

C Harripersad, C Sookhan, C Lal, C Casimire, C Bahadur, C Carmona, C Stephen, C Dipnarine, K Ekemiri

P8: Self-perceived Stress among Medical Students in Relation to their Perceptions on Virtual Learning during the COVID-19 Pandemic

P Sahu, J Seunarine, J Chadee, J Ramsaran, J Persad, J Kissoon, J Singh, J Gandlal, J Persad

P9: Stressors, Psychological States and Health-Related Quality of Life of University Students: Impact of the COVID-19 Pandemic

S Kumar, S Motilal, S Sooknanan, S Muhammad, S Rampersad, S Ramkissoon, S Sarker, S Mann, MA Ivey

P10: Youth in Lockdown: Impact of COVID-19 Pandemic on Depression, Anxiety and Loneliness among Young Adults in Trinidad and Tobago

B Bachan, C Cook, C Howard, C Joseph, C Lucas, B Sidhooram, C Sookoo, C Stewart, K Khan

P11: An Investigation into the Mental, Social and Physical Impacts of Online Learning on the Students at The University of the West Indies (UWI), St. Augustine

L Alexander, K Bissoon, K Flores, L Hospedales, L La Barrie, K Mather, L Mullings II, K Ragbir, V Singh

P12: 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

V Victor, A Ali, A Dookran, A Lulkool, A Mahabir, A Marchan, A Monroe, A Parsan, A Ramharack

P13: “Half a Life Being Lived” – Exploring the Psychosocial Impact of the COVID-19 Pandemic on Caribbean People and the Role of Exercise as a Coping Strategy

AR Richardson, A Mac Intosh

PUBLIC HEALTH

P14: A Review of the Epidemiological Analysis of the Malaria Burden in Latin America and the Caribbean from 2010 to 2020

C Sant, C Oura, K Georges

P15: Assessment of the Knowledge, Attitudes and Practices towards Respiratory Tract Infections among the Trinidadian Population

S Bacchus, S Cooper, S Jacob, S Lalwah, S Lee Loy, S Ramlogan, S Rampersad, S Sampson, C Unakal

P18: A Review of the Health Risk Behaviours among Adolescents in the English-Speaking Caribbean: 2006 to 2020

N Ali, N Ali, N Chadee, N Hedley, N Jagessar, N Kissoon, N Nawal, N Ramsaroop, RG Maharaj

NON-COMMUNICABLE DISEASES

P19: A Descriptive Retrospective Study of PSA and IPSS Scores from Participants at a Men's Health Initiative

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ORAL ABSTRACTS

O1 - Acceptance and Attitudes towards COVID-19 Vaccines among the Adult Population in Trinidad and Tobago

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Objective:

To determine behavior and attitudes towards COVID-19 vaccine acceptance and identify factors associated with willingness to take the vaccines.

Methods:

An online survey, using Google Forms, of 1101 adult residents of Trinidad and Tobago was conducted using snowball sampling via social media and emails during the period December 2020 to January 2021. Chi-square tests were used to examine differences in vaccine uptake by demographic variables.

Results:

Females comprised 54% of the sample. The largest age group was 26-35 years (43%). Only 37.7% of participants indicated that they would accept a WHO-approved vaccine. Reasons for non-acceptance were concerns with safety (46.1%), effectiveness (22.3%), the rushed timeline (15.9%) and with vaccines in general (15.7%). Most persons said that they adhered with safety protocols (92.3%), that vaccination was an effective way to prevent and control COVID-19 (60.6%) and they would take a vaccine if it was needed to travel overseas (66.4%).

These were significant differences in vaccine acceptability by age, ethnicity, religion, education and employment ($p < 0.01$ in each case). Highest acceptability rates by age group were in persons aged 18-25 years (48.3%) and greater than 55 years (50.1%). Regarding ethnicity, highest rates were in East Indians (58.1%) and lowest in

Africans (27.5%). In addition, participants who had no religious affiliation (51.6%) and Hindus (65.7%) had the highest rates of acceptability. Persons with tertiary level education had the highest rate of acceptance (42.6%) when examined by schooling. Regarding employment, highest rates were found in students (54.8%).

Conclusion

The willingness to accept the WHO-approved COVID-19 vaccine was low, which must be addressed using targeted strategies that address hesitancy.

O2 - An Investigative Study on the Perception and Acceptability of a COVID-19 Vaccine of the Public in Trinidad and Tobago

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Objectives:

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.

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 and above, completed the survey. Data were analysed using SPSS v.27.

Results:

The majority of the 927 respondents (78.3%) believed that vaccines were effective against infectious diseases.

- 81.8% of respondents 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 themselves (94%) and others (90%) while those who would not agree to vaccine acceptance expressed concerns about the pace of its development or lack of evidence on its safety (84%) and side effects (75.6%).
- 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.

Conclusions:

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

03 - "It Is Too Much, No More Vaccine Stories, Just Give Me the Jab": A Qualitative Study Conducted in Trinidad and Tobago

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Objectives:

To determine the knowledge, beliefs and barriers to uptake, associated with the COVID-19 vaccines being distributed in Trinidad and Tobago.

Methods:

In June 2021, a sequential explanatory mixed-methods

study was conducted in Trinidad and Tobago using SurveyMonkey. This report explores the qualitative findings from the larger mixed-methods study. Eight focus groups were conducted with participants who were hesitant to take the vaccine (n= 28) using a convenience sample. The focus groups were conducted using the online platform, Zoom. The focus groups lasted approximately 50 minutes and they were audio-recorded and transcribed verbatim. The data were then analyzed using a thematic approach.

Results:

The majority of the participants in the focus groups were female. The major themes derived from the data which represented barriers to vaccine uptake were vaccine coercion, lack of information, mistrust of authorities, and belief in the use of alternative medicines. Strategies to improve vaccination included mass vaccination locations, education, and ease of scheduling appointments. Participants often indicated they were willing to take the vaccine but were not comfortable with the choices available in the country.

Conclusions:

Low uptake of the vaccine can create long lasting economic and social problems for the country. Education campaigns are needed to provide careful explanations of the vaccine efficacy and benefits. A campaign that includes the cultural nuances on the use of alternative treatments among the population should be considered.

04 - Knowledge, Attitudes and Practices towards the Flu (Influenza) and COVID-19 Vaccines amongst University Staff and Students in Trinidad and Tobago

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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.

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 associations 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 rate of vaccinations ($p=0.009$) while those aged 45 and older showed greater knowledge on the number of deaths prevented by vaccination ($p=0.019$). The major reasons for vaccine hesitancy were uncertainty towards safety and efficacy.

Conclusion:

At least 71.1% of participants were 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.

05 - Positive Influences of the COVID-19 Pandemic on Community-Dwelling Adults in Trinidad and Tobago: A Cross Sectional Study

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Objectives:

To examine the positive influences of government imposed COVID-19 public health restrictions on community dwelling adults throughout Trinidad and Tobago (TT).

Methods:

A cross-sectional study, using an adapted pretested online survey instrument, was conducted using convenience sampling.

Results:

Of 1287 completed responses, the mean age was 39 (SD=15) years, 49% were males and 61% completed secondary level education. Major ethnic groups were African (37%) and East Indian (37%). Positive experiences were ranked, with more time spent with family being the most popular response (80%), followed by more downtime (78%), learning new skills (68%), more time for hobbies (66%), self-care (57%), more time spent with friends (55%), eating healthier (50%), greater efficiency with work related activities (45%), more exercise (44%) and more community spirit (34%). Most respondents (75%) identified with at least three positive experiences. Religion, and its perceived importance, was positively associated with learning new skills (Adjusted

Odds Ratio (AOR):1.79, 95%CI 1.22-2.63), healthier lifestyles (AOR:6.45, 95%CI 4.06-10.23) and more time for other activities (AOR:3.73, 95%CI 2.01-6.96). Being unemployed (AOR:5.45, 95%CI 1.79-16.63) and working from home (AOR:1.73, 95%CI 1.10-2.73) were associated with spending more time on other activities. Identification with community spirit was not associated with income level and employment status ($P>0.05$). Anxiety and depressive symptoms were however, negatively associated with all positive experiences ($P<0.05$ for all).

Conclusions:

Despite the morbidity associated with the COVID19 pandemic, several positive outcomes were highlighted in this study. This provides opportunities for promotion of such experiences through social policies, which can build resilience during these uncertain times.

O6 - A Cross-Sectional Analysis of COVID-19 Knowledge, Attitude and Practices in Grenada.

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Objectives:

To explore the Grenadian population's COVID-19 related knowledge, attitude and practices.

Methods:

A population based cross-sectional survey of Grenadian residents 18 and older was conducted using self-administered web- and interviewer-administered phone-based surveys. Data were collected on awareness of COVID-19 symptoms, perceived needs and risk, and ability to carry out preventive behaviours. Data analysis included descriptive statistics, Chi-squared analyses, and Pearson correlation. Statistical analyses were conducted

at the 95% significance level set using SPSS version 23.0.

Results:

Of 485 survey respondents, 70.3% were female, 27.6% employed, 64.4% had a college degree or higher and 35.2% were aged 20-29. Most participants were aware of who could become infected (61.6%), prevention measures (63.5%) and infection spread by asymptomatic persons (83.1%). There was a low awareness of symptoms (20.4%) and transmission methods (41.4%). Knowledge scores and perception of risk to community were significantly correlated ($p<0.05$) with education and marital status. More participants had a perception of low self-risk (36.5%) and no community risk (23.1%). When asked about concern regarding infection, 55% of participants reported a lack of concern for self but were very concerned (57.7%) for households. Concern for self was higher among males ($p<0.05$). Education was significantly correlated with practice ($p<0.05$). However, more participants (37.3%) reported not implementing any preventive measures.

Conclusions:

The results highlighted that there were information gaps, and attitudes and practices were not aligned with awareness. Targeted health education programs, messaging tailored to youth and men, and an understanding of determinants of low practice scores were needed.

O7 - Lifestyle and Academic Changes of UWI Students in Response to COVID-19: Implications for Health

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Objectives:

To examine the lifestyle and academic changes in undergraduate students at the UWI St. Augustine before COVID-19 (BC) and during the COVID-19 (DC) public health related measures.

Methods:

A cross-sectional study of a convenience sample of first and final year students, attending four faculties, at The UWI (St. Augustine) was conducted in April 2021, using a self-administered questionnaire via social media. Behavioural and psychosocial changes toward eating/meals, sleep, exercise, productivity, workload management (WM), recreational activities (RA), communication with friends/family and anxiety/depression were analysed, comparing BC, i.e. March 2020, and DC.

Results:

- 203 respondents: 54.7% first year students, 39.9% males, 62.1% East Indian and 79.8% preferred life BC.
- From BC to DC: decrease observed in exercise (29.1% to 32.5% 'never exercising') and productivity (61.6% to 49.8%); significant decreases observed in weekly fast-food and daily meal consumption, time management, WM and sleep ($p < 0.05$, respectively).
- Largest decrease seen in WM: 35.5% to 14.3% reporting 'very good'.
- Significant increases in time spent on online academic pursuits (5.4% to 43.8% reporting '>8 hours per day') and RA (8.9% to 27.1% reporting '>6 hours per day') ($p < 0.01$, respectively).

The RA most practiced to reduce anxiety/depression BC and DC was listening to music.

Conclusions:

Overall, the changes observed in lifestyle and academic activities can potentially impact students' health, and in the long term, their quality of life and academic excellence. As institutions consider developing interventions, they should note the positives of time spent engaging in increased recreational activities, e.g. music.

08 - Cultural Competence among Healthcare Professionals during COVID-19 Pandemic in Trinidad and Tobago: Implications for COVID Care Resiliency

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Objective:

To explore healthcare professionals' cultural competence and care resiliency during COVID-19 pandemic.

Methods:

A pilot study using focused group discussions explored healthcare professionals' cultural competence in seven domains (awareness, sensitivity, knowledge, skills, behaviour, desire and care resiliency). Doctors, nurses, medical social workers, and radiographers formed four focus groups with four to six members in each group.

Results:

Data collected indicated that cultural competence is conceptualized differently by the four groups of healthcare professionals.

- Doctors defined cultural competence as the "way culture affects our practice, and patients' "response to treatment"; Nurses: it is "altering speech" to help patients comprehend clinical term, and "un-biasedly" respecting patients' and families'; Medical Social Workers (MSW): "inclusiveness" of patients' special needs; Radiographers: "treating patients as patients".
- Cultural awareness and sensitivity were described as "being aware", "being mindful", "being proactive", being aware of "different cultural experiences in a multicultural stage" and "no demarcation based on gender, status or ethnicity".

- Cultural knowledge was “not part of the curriculum in Trinidad”.
- Cuban nurses, mobile applications and translators assisted in communicating with non-English patients.
- All groups except radiographers agreed and described culture and religion as central to patients’ behaviour.
- Care Resiliency–home remedies during the pandemic were unofficially recommended. Patients’ compliance to COVID protocol optimized health care under the new normal. Health professionals strongly advocated their patients to get vaccinated.

Conclusion:

With changing demographics of Trinidad and Tobago, cultural competence needs to be integrated in the healthcare systems for optimal care of the patients.

09 - 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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Objectives:

To determine the ethnic distribution of diabetes mellitus (DM), the awareness of Diabetic Retinopathy (DR), and the impact of COVID-19 on willingness of people with diabetes to present for DR screening.

Methods:

In this cross-sectional study, questionnaires constructed

in Forms by Google were administered to affiliates of the Diabetes Association of Trinidad and Tobago (DATT) via different social media platforms. Response data downloaded to an Excel spreadsheet was imported into SPSS for analysis. Frequencies and crosstabulations were computed. Ethical approval was received from the UWI Research Ethics Committee and the Ministry of Health of Trinidad and Tobago.

Results:

Fifty-five percent (155/283) of all survey participants were diagnosed with Type II diabetes. Most respondents with Type II diabetes were Indo-Trinidadians, 62.6%; above 40 years old, 80%; and female, 78.4%. Of the 123 participants who reported that they had no knowledge of DR or were unsure if they did, 61.8 % had either Type I or Type II diabetes. Overall, 52.5% (84/160) of the survey participants who knew about DR had been screened. The top three sources of information for those who knew about DR screening were doctor/optometrist, the DATT, and social media. Forty-three percent (121/283) of survey participants either avoided screening or were unsure if they would present for screening because of the COVID-19 pandemic.

Conclusion:

There was a need for more targeted education about DR as a complication of diabetes and the impact of COVID-19 on DR screening should be monitored.

010 - The Epidemiology of End Stage Renal Disease in Patients with Renal Disease in Eric Williams Medical Sciences Complex

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Objectives:

To analyse the data from patients with chronic kidney disease from 2016-2021, extrapolate epidemiological information, and to establish a correlation with long term diabetes and/or hypertension and the development of chronic kidney disease in Eric Williams Medical Sciences Complex, Trinidad and Tobago.

Methods:

This retrospective cohort design study was conducted at the Eric Williams Medical Sciences Complex Dialysis Centre where 76 patient records were retrieved. Data such as 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 Analysis of Variance were conducted using Statistical Package for the Social Sciences Version-27.

Results:

The analyses of collected data revealed:

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

Conclusions:

Our study showcased epidemiological data of chronic kidney disease and its association with hypertension and diabetes as possible contributing and non-contributing factors to the disease at the Eric Williams Medical Sciences Complex, Trinidad.

O11 - The Impact of the COVID-19 Pandemic on Risk Factors for Chronic Non-Communicable Diseases among Members of Staff at the University of the West Indies, St. Augustine Campus

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Objectives:

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

Methods:

A before-and-after study was conducted using online self-administered questionnaires to compare the prevalence of risk factors for Non-Communicable Diseases (NCDs) among staff members prior to and during the COVID-19 pandemic. Purposive sampling was used to choose a suitable sample. The software, Statistical Package for Social Sciences (SPSS) was used to analyse the data for significant differences.

Results:

Weight gain was reported in 49% of respondents (+3.63kg (95% CI 2.87, 4.39)) and an insignificant 4% increase in the prevalence of obesity was seen. There were no statistically significant increases in average blood glucose and blood pressure. A 23% decrease in respondents exercising/playing sports ($p=0.034$) and 11.6% decrease in persons exercising for the recommended 150 minutes/week ($p=0.015$) were seen. There was a 17.1% decrease in fast-food consumption and increase in home-cooked meals ($p<0.001$). Increases were seen in meal portion sizes (17.1% increase) ($p=0.227$) and in "more than three meals" consumed

daily (6.6%) ($p=0.004$). There were non-significant decreases in alcohol consumption frequency ($p=0.232$) and intensity ($p=0.857$), but no significant changes in smoking frequency ($p=1.00$) or in the number of cigarettes smoked ($p=0.279$).

Conclusions:

Consumption of larger meal portion sizes and increases in food consumption frequency and sedentary lifestyles were seen, emphasising the need to promote healthy lifestyle choices despite the lockdown.

012 - Health Facility-based Weight Control Program Was Effective in Reducing Body Size in Overweight and Obese Children

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Objective:

To determine the effectiveness of the Healthy Lifestyle Clinic (HLC) of the North West Regional Health Authority, Trinidad and Tobago in reducing the Body Mass Index (BMI) of overweight and obese children, aged 5 – 10 years.

Methods:

The research employed a mixed methods design comprising a retrospective cohort study, followed by Key Informant Interviews (KII). Program effectiveness was determined by measuring changes in the children's BMI z-scores (zBMI) after 2 years of participation. The HLC program was implemented in 2 health facilities and comprised nutrition, exercise and psychology elements. 89 children met the selection criteria and were divided into those who attended at least half of the scheduled sessions (Adherers, $n=50$) and those who attended fewer (Non-adherers, $n=39$). Changes in zBMI were analysed using paired t-tests. KIIs were used to capture the perspectives of parents and children about the program.

Results:

There was a significant decrease in zBMI from baseline to endpoint (-0.39 , $SD=0.75$, $P<0.001$). Further analysis indicated that the reduction in zBMI was only found among the Adherers (-0.60 , $SD = 0.70$, $P<0.001$) while there was no significant change among Non-adherers (-0.12 , $SD = 0.71$, $P=0.290$). The KIIs revealed positive attitudes to the HLC; difficulty implementing recommended lifestyle changes; denial of a weight problem by non-adherers; and barriers to program adherence.

Conclusions:

A well designed, freely available childhood obesity program was effective in reducing BMIs among participants who attended regularly. Cultural and structural drivers of obesity must also be addressed to increase program effectiveness.

013 - Disseminated Histoplasmosis among Patients Attending an HIV Treatment Centre in Trinidad.

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Objectives:

To determine the burden of disseminated histoplasmosis (DH) among persons living with HIV (PLHIV) attending a HIV Treatment Centre in Trinidad.

Methods:

A chart review was conducted over the period 1 January 2010 – 31 December 2020 for patients presenting to the HIV Clinic who were diagnosed with fungal infections (including DH). Descriptive and bivariate analyses were performed, and factors significantly associated with a DH diagnosis were assessed using multivariate logistic regression.

Results:

A total of 594 patients were diagnosed with fungal infections, of whom 145 (24.4%) were diagnosed with DH: 95 (65.5%) male and 50 (34.5%) female. Compared

to PLHIV with other fungal diagnoses, patients with DH were more likely to be over the age of 40 ($p < 0.05$); to be co-diagnosed with *Pneumocystis jiroveci* pneumonia ($p < 0.05$) or oesophageal candidiasis ($p < 0.05$). The crude mortality rate for PLHIV diagnosed with DH was 41%. In the first year after clinic enrolment, patients diagnosed with DH were more likely to be males ($p = 0.004$), there was increased mortality in women (RR 4.55, $p = 0.049$) but patients were almost 3.7 times more likely to survive to the end of the study period (OR, 3.67; 95% CI, 1.62 – 8.3).

Conclusions:

Histoplasmosis is an opportunistic infection affecting PLHIV in Trinidad and Tobago with significant mortality. Further analysis is warranted to explore incidence and mortality from DH as this would have important policy implications regarding screening, diagnosis, prophylaxis and treatment for the disease.

O14 - Sexually Transmitted Infections in HIV Infected Women at Medical Research Foundation of Trinidad and Tobago

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Objective:

The prevalence of sexually transmitted infections (STIs) in HIV infected women attending the Medical Research Foundation of Trinidad and Tobago (MRFTT) is unknown and this study aimed to determine the most prevalent STIs in these women which would guide appropriate STI screening for clients and their partners.

Method:

Over the period July 2020-March 2021, clients attending a Women's Health Clinic at MRFTT for pap smears were offered endocervical screening for Chlamydia and Gonorrhea and the syphilis results were obtained from MRFTT files as women are screened annually for syphilis. Clients were interviewed by nurses in order to gain a personal sexual history and data was collated

electronically.

Results:

Of the 184 women (Age range 19-71 years) who received STI screening, 159 (86%) reported first sexual activity at 15-29 years, 142 (77%) reported being sexually active in the last 12 months and 59 (32%) self-reported a prior STI. Seventy-four (40%) reported having 1-4 lifetime sexual partners, 68 (37%) as having 5-9 partners and 42 (23%) as having >10 lifetime partners. STIs were diagnosed in 14 of 184 patients (7.6%) and the STIs were Chlamydia 11(6%), Syphilis 2 (1%) and Gonorrhoea 1 (0.5%).

Conclusion:

Chlamydia accounted for the most prevalent STI in this cohort. While often asymptomatic in women, these STIs may go undiagnosed and contribute to sexual and reproductive health issues such as pelvic inflammatory disease and infertility. In a population that is highly sexually active, HIV infected women should be screened on baseline and annually for STIs.

O15 - Identifying Factors Associated with Frequent Presentations of Asthma and COPD Exacerbations in the Emergency Department

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Objective:

To determine factors associated with frequent presentations *i.e.*, more than once in the previous year, to the Accident and Emergency Department (A&E) for treatment of acute asthma and chronic obstructive pulmonary disease (COPD) exacerbations. This is an indication of poor disease control.

Methods:

After receiving the required approvals, 100 patients aged 18 and older, who presented to the Port of Spain General Hospital A&E between September and October 2019 for treatment of asthma or COPD related symptoms, voluntarily completed a questionnaire on factors related to their condition. Associations between risk factors and exacerbation frequency were examined using Odds Ratios (OR) and the 95% Confidence Interval (CI). Logistic regression analysis was used to identify the independent predictors of frequent exacerbations. Associations were significant at $p < 0.05$.

Results:

63% of participants were frequent exacerbators. Frequent exacerbations were found to be associated with male sex (OR=2.62, 95%CI 1.09-6.29, $p=0.029$), patient-reported COPD (OR=8.47, 95%CI=1.05-66.67, $p=0.028$), a history of smoking (OR=2.34, 95%CI 1.02-5.38, $p=0.044$) and salbutamol inhaler use (OR=17.10, 95%CI 2.04-143.22, $p=0.001$). Logistic regression analysis indicated that salbutamol use was the only independent predictor of frequent exacerbations.

Conclusions:

Improper use of salbutamol inhalers among asthma and COPD patients may have resulted in their seeking medical attention for their exacerbations. Clinical follow-up promoting adherence to inhaler usage recommendations may be warranted. Also, the successful implementation of smoking prevention and cessation programs may reduce exacerbation frequency. The association between frequent presentation to A&E and reported COPD may be due to the progressive nature of this disease.

O16 - Cost Utility Analysis for Peritoneal Dialysis versus Hemodialysis for Trinidad and Tobago: Preliminary Findings

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Objectives:

To create a preliminary Cost Utility Analysis model for Peritoneal Dialysis versus Hemodialysis using Trinidad and Tobago data.

Methods:

Data on treatment, complications and the 3-level version of European Quality of Life Five Dimension (EQ-5D-3L) health status were obtained from stratified random samples of 350 hemodialysis and 80 peritoneal dialysis patients in Trinidad. A Markov model was created which included costs, health outcomes of peritoneal dialysis patients and hemodialysis and World Health Organization all-cause mortality data with transition probabilities from published studies. For probabilistic sensitivity analysis Monte Carlo simulations were used to generate 1,000 simulations for peritoneal dialysis patients vs hemodialysis.

Results:

Using a healthcare payer's perspective, Cost per Quality Adjusted Life Year for hemodialysis and peritoneal dialysis patients were TT\$189,6854 and TT\$163,704 respectively with peritoneal dialysis patients producing 2.06 Quality Adjusted Life Years/patient more than Hemodialysis at an incremental cost of TT\$106,396 per additional Quality Adjusted Life Year. However, when a societal perspective was taken (which includes lost output/income) the incremental cost of peritoneal dialysis patients vs hemodialysis became negative (–TT\$44,605) because of the lower lost income associated with peritoneal dialysis patients. Following World Health Organization guidelines for a willingness to pay threshold for one Quality Adjusted Life Year at 3-times Gross Domestic Product per capita, the probabilistic Cost Utility Analysis model showed a cost-effectiveness acceptability of 96.5% for peritoneal dialysis patients vs hemodialysis from a payer's perspective and 99.7% from a societal perspective.

Conclusions:

This model includes the incidence of complications for both patient groups. From a societal perspective, moving patients from hemodialysis to peritoneal dialysis patients offers the possibility of creating additional Quality Adjusted Life Years at lower lifetime costs. From a payer's

perspective, the additional Quality Adjusted Life Years are created at a cost-per- Quality Adjusted Life Year that is significantly below current World Health Organization guidelines.

O17 - Using EQ-5D to Compare the Health-Related Quality of Life (HRQoL) of UWI Students: Pre-COVID-19 Pandemic vs During COVID-19 Pandemic

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Objectives:

To compare University of the West Indies (UWI) St Augustine undergraduate students' HRQoL before COVID-19 (BC) to during the COVID-19 public health-related measures (DC) using the 3-level version of European Quality of Life Five Dimension (EQ-5D-5L).

Methods:

A cross-sectional study of a convenience sample of UWI (St Augustine) first and final year students was conducted in April 2021. The EQ-5D-5L instrument was self-administered online via social media. Current DC-HRQoL and recalled BC-HRQoL, i.e., prior to March 2020, were measured on 5 dimensions: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression (AD) and a visual analogue scale (EQ VAS). This method of comparing current and recalled EQ-5D status has been successfully applied in other recent applications e.g., to assess compensation for catastrophic events.

Results:

The survey was completed by 203 respondents: 59% females, median age 20 (IQR: 19, 21) years and 1.5% reported contracting COVID-19. The EQ-5D health profile

of respondents declined across the two periods. Mean EQ-VAS scores decreased from 74.3 to 67.2 ($p < .001$). Percentage of respondents reporting the full health state (11111) decreased from 26.1% to 13.8%. Significant increases were observed in rates and levels of reported problems on all EQ-5D-5L dimensions except mobility. AD was the most affected dimension in both directions: 41% reported higher levels of AD and 10.8% reported lower levels of AD. 21.7% reported increased levels of pain/discomfort. Index values were lower for 54% of the sample.

Conclusions:

Overall, the self-reported health of the sample was lower DC than BC. However, 15% of the students reported improved health status.

O18 - Coping Mechanisms and Knowledge of their Health Impact: A Cross-sectional Study of University Students

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Objective:

To describe coping mechanisms and its self-assessed health impacts among University of the West Indies, St Augustine Campus students, during the COVID-19 pandemic.

Methods:

A cross-sectional study of 326 undergraduate students of the University of the West Indies was conducted using quota sampling based on gender and faculty distribution. Self-administered questionnaires were distributed through online social media platforms. Information about their demographics, coping mechanisms and health related quality of life (HRQoL) were captured and measured using the 5-level version of European Quality of Life Five Dimension (EQ-5D-5L) (Index and visual analogue scale (EQ-VAS) scores). Descriptive and inferential statistics were presented at $\alpha=0.05$ level of significance.

Results:

Of the 326 students' age ranged from 18 to 40 years (median=21, IQR=20, 22) studied, 37.2% were males. 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%). Most users reported praying/meditation (80.8%), support from family/friends (73.4%) and exercising (73.3%) positively impacted their health, while self-harm (81.2%), poor eating habits (78%) and aggressive behavior (67.1%) negatively impacted them. Many students (43%) reported not being discouraged from using their 'negative' coping mechanism whilst being aware of its health effects. Average EQ-5D index and EQ-VAS scores of students were 0.83 and 69.5 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:

Effective interventions are needed to increase the HRQoL among students using negative coping mechanisms whilst being adequately knowledgeable of their adverse health impact. This could present health and academic issues in the future.

O19 - Knowledge, Awareness, Perceptions and Behaviour (KAPB) of Students of the University of the West Indies Towards Climate Change and Its Impact on Human Health

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Objective:

To examine awareness regarding the relationship between climate change (CC) and health among final year students of The UWI-STA.

Methods: A cross-sectional study was conducted, and online questionnaires distributed, as Google Forms, using voluntary response and snowball sampling, to final year students of four faculties: Faculty of Medical Sciences (FMS), Faculty of Science and Technology (FST), Faculty of Food and Agriculture (FFA) and Faculty of Law (FL). KAPB, health impact and curriculum coverage were examined.

Results: The study collected 132 responses: 45.5% FMS, 25.0% FST, 15.9% FFA and 13.6% FL.

- Most respondents were generally knowledgeable about climate change (88.6%) but only 10.6% fully understood it.
- All faculties were highly knowledgeable about health impacts of CC (mean scores 9-10: maximum attainable Knowledge score being 11), with the impact on chronic non-communicable diseases least recognized.
- FMS respondents were more aware of links with mental health than non-FMS faculties ($p=0.008$).
- 59.7% non-FMS respondents reported CC covered on curriculum compared to only 6.7% FMS and
- 30.5% non-FMS respondents reported CC and health links covered on curriculum compared to only 3.3% FMS.
- Apart from UWI's coverage of CC and health, a primary information source was media (25.2%), seen especially in FMS. Social media (34.4%) and mass media (28.9%) were also the most preferred information sources.

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.

O20 - 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

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Objectives:

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.

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 analysed using SPSS.

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.

Conclusions:

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.

O21 - Self-Management Support Needs of Caribbean Adolescent Girls and Young Women with Polycystic Ovary Syndrome: A Qualitative Study

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Objective:

To examine the difficulties, barriers and aids to self-managing Polycystic Ovary Syndrome experienced by Caribbean adolescent girls and young women aged 16-24, determine whether they would be attracted to self-management support interventions, and identify ideal components for such.

Methods:

The study used a descriptive phenomenology design with the Antecedent Target Measure approach. Semi-structured interviews followed by open-ended questions were conducted with adolescent girls and young women from Trinidad and Tobago, Guyana and Haiti sampled using purposive sampling. The Antecedent Target Measure approach was used to investigate factors affecting self-managing Polycystic Ovary Syndrome, and thematic analysis was used to explore perceptions of support interventions.

Results:

Adolescent girls and young women with Polycystic Ovary Syndrome in the Caribbean shared similar experiences with women diagnosed with Polycystic Ovary Syndrome

outside the region. Factors affecting self-management were; inadequate information, individual and external perceptions of Polycystic Ovary Syndrome, related expenses, and challenges in maintaining healthy diet and physical activity. One new finding was, adolescent girls and young women felt the culture required silence to avoid the appearance of weakness. The adolescent girls and young women were open to support interventions given prerequisites such as confidentiality, relevance, and personalisation.

Conclusion:

Striving to maintain a sense of normalcy within culture and peers affects the self-management of Caribbean adolescent girls and young women with Polycystic Ovary Syndrome. In addition to treatment and support options available outside the region, Caribbean adolescent girls and young women with Polycystic Ovary Syndrome require culture-specific, solution-oriented, and individualized interventions to foster a holistic solution catered to their unique culture.

O22 - The Elderly's Experience with Health Promotion in the Public Health System: Preliminary Results

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Objectives:

To examine the elderly's experiences and satisfaction with health promotion strategies within the public healthcare system (PHCS) in Trinidad.

Methods:

A cross-sectional study, using quota sampling of 140 patients aged ≥ 65 years, was conducted at four randomly selected public healthcare institutions in Trinidad. Interviewer-administered questionnaires captured satisfaction with health promotion strategies during the previous two years of visit to the institutions.

Data were analysed using descriptive statistics and chi-square test; level of significance set at 0.05.

Results:

The mean age of the patients was 73 (SD = 6.4) years. 56.7% were females and most were either of East Indian (44.1%), African (31.5%) or Mixed (22.8%) descent. 32.5% were completely satisfied and 19.8% were very satisfied. 12.6% visiting institutions in urban areas were not satisfied vs 3.2% visiting institutions in rural areas ($p = 0.013$). Wait time (<1 hr), to see a doctor was greater in rural (27.6%) vs urban areas (6.7%) ($p=0.01$).

- $>70.0\%$ had discussions with healthcare professionals (HCP) regarding healthy eating/diet and physical activity/exercise leading to positive behavioural changes in $>70.0\%$ of those respondents.
- 40.3% experienced anxiety/stress: 80.0% were able to deal with it themselves and of these, 80.0% were able to get help from a healthcare professional in the PHCS when needed.
- 16.9% were informed about managing stress, 85.7% of those participants enacted lifestyle changes to manage stress.

Conclusions:

Greater health promotion is needed across all areas, particularly to address anxiety/stress. An intervention is required to ensure equity in delivery of services across public healthcare institutions in rural and urban areas.

O23 - Epidemiology, Risk Factors and Histopathologic Characteristics of the Common Cancers in Trinidad

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Objective:

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

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 indicated that cancers among women (breast, lung and endometrial) were predominant (63.64% female), mainly within the age group 61-70. While for males, lung, colorectal and prostate cancers were common. Overall, lung cancer was most prevalent (29%). Most tumors were histologic grade III (57%, mainly tumors 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 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.

O25 - The Relationship Between Characteristics of Medical Doctors in Trinidad & Tobago and Self Reporting of Mental Health Conditions, Perceptions of Support Mechanisms and Work Environment

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Objectives:

To assess the experiences of physicians in Trinidad and Tobago with regard to mental health related problems in the context of their work demands and environment and the presence of effective support systems.

Methods:

A questionnaire was developed based on a literature review of mental health problems. The questionnaire was administered electronically and anonymously to the membership of the Medical Board of Trinidad and Tobago. Statistical Package for Social Sciences (SPSS) version 25 was used to analyse the data.

Results:

A total of 182 medical practitioners responded. Of the respondents, 46.2% were below 30 years, 62.6% were female and 58.2% were of East-Indian ethnicity. 64.8% were single, 59.9% were House Officers, 81.3% worked in public health system and 84.1% in an in-patient setting. 78.6% attended the University of the West Indies (UWI) with 90.1% being from the Caribbean. The top three reported conditions were depression/anxiety (59.3%), suicidal thoughts (24.7%), and use of substances (21.4%). 66% indicated that they were overwhelmed. 75% indicated that there were no systems in place to support doctors who make a mistake; 80% indicated that there was no support for those who develop psychiatric illness; 77% indicated that there was no support for those with substance abuse problems, and 93% indicated that there were no support systems for those who feel overwhelmed and exhausted.

Conclusions:

There was a high rate of occupation related mental health problems reported in these physicians and there is a need to establish specific support mechanisms to address their needs.

O26 - The Psychological Burden of Bullying - A Retrospective Chart Review on the Effects of Bullying on the Mental Health of Patients Attending the Child Guidance Clinic Port of Spain from June 2016 to May 2017

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Objectives:

To determine the prevalence of bullying activity and describe the socio-demographic features of a population of patients attending a Child and Adolescent Psychiatry clinic and explore associations between bullying activity and psychosocial factors.

Methods:

Records of new cases attending the Child Guidance Clinic, Port of Spain over one year were reviewed to obtain socio-demographic and symptom data. Incomplete evaluations were excluded. Data were analysed using SPSS 23. Chi-square was used to determine associations between variables; Cramer's V measured the effect size of associations.

Results:

Total sample was 283 patients - 91.9% were included (51.9% female).

Bullying activity prevalence was 57.3%. The 10-14 age group (49.7%) and primary school attendance (57.9%) had the highest rate of bullying activity (49.7%). Physical bullying was higher in boys (68.4%) and social (78.6%) and cyberbullying (100%) higher in girls. Verbal, social and cyberbullying were highest in secondary school (57.8%, 78.6%, 100%).

A history of abuse ($p=0.028$) and family history of mental illness ($p=0.012$) were significantly associated with bullying. Suicidal behaviour, self-harm, aggression, feelings of sadness, disobedience, irritability ($p < 0.001$); hyperactivity, sleep disturbance, academic difficulties,

temper tantrums, inattention/poor concentration ($p < 0.05$) were significantly associated.

Conclusions:

A high prevalence of bullying related activity was found in this population. Bullying may be a significant risk factor for children and adolescents presenting to mental health services. Early identification and appropriate intervention in such patients should be prioritised.

O27 - Patients' Attitudes, Beliefs and Concerns Regarding Medication Disposal in Trinidad

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Objective:

Unused/expired medicines disposed of in household trash or poured down the sink can enter soil and water supply hence affecting Planetary Health. This study aims to assess patients' knowledge and understanding of medication disposal practices and their willingness to participate in a medication take-back program.

Methods:

Self-administered questionnaires comprising of 26 questions based on demographics, knowledge, beliefs, practices and concerns were administered to patients. This randomized, cross-sectional study was conducted over 12 weeks at the outpatient pharmacy sites located in the four Regional Health Authorities (RHAs) in Trinidad. Statistical Package for the Social Sciences (SPSS) version 24 was used for statistical analysis.

Results:

A total of 547 persons completed the questionnaires. Participants in the North West and South West Regional Health Authorities were aware that improper disposal of

mediation can lead to increased antibiotic resistance ($p = 0.015$). Disposal of unused/expired medication via household garbage (86.1%) was the most commonly encountered practice. The internet (51.2%) and pharmacists (47.3%) were main sources of advice for information on medication disposal practices. Patients were agreeable to participate (82%) in medication take-back programs with 31% willing to pay a fee and 67.5% preferred the service be available at private community pharmacies.

Conclusion:

Patients showed good knowledge about the dangers of improper disposal of expired or unused medications; however, a high percentage utilized household garbage as their main disposal method. Patients were eager to participate in a medication take-back program; therefore, educating the public on proper medication disposal would benefit our environment.

O28 - Coronavirus Disease of 2019 Negatively Impacts Drug Availability and Prices in Trinidad, West Indies

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Objective:

The COVID-19 pandemic exacerbated a global challenge to access medications. Already existing drug shortages were further compounded by unproven claims,

stockpiling, border lockdown measures, decreased production of active pharmaceutical ingredients, scaled down manufacturing, and restrictions/bans on drug exportation. This study investigates the impact on availability and prices of chronic disease medications in community pharmacies in Trinidad during the pandemic.

Methods:

A pre-piloted questionnaire was disseminated amongst community pharmacies via email, or by in person delivery with subsequent collection at a later date. The 13-question questionnaire was administered to community pharmacists to assess the impact of the pandemic on drug availability, fluctuation in prices, and the impact on the country's Chronic Disease Assistance Programme (CDAP) during the period March-November 2020. The data was analysed using SPSS version 24.

Results:

Pharmacists ($n=162$) rated their chronic disease stock levels as 'good' or 'very good' (74.7%) before the pandemic compared to 16% during this period. Community pharmacists reported a reduced frequency in delivery of drug supplies from distributors (86.4%), with only 5.4% receiving adequate drug supplies. Most (90.1%) reported an acute increase in prices at the distributor level. More than half of pharmacies reported medication shortages for hypertension, analgesia and asthma while 21% stated no drug shortages in the CDAP.

Conclusion:

Disruption of the supply chains resulted in medication shortages and increased prices. Methods to address supply demand and price control must be implemented to ensure the availability of essential drugs for patients with chronic diseases during crisis situations.

O29 - Community Pharmacists' Knowledge, Practice, and Perception of Asthma Care in Trinidad

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Objective:

Uncontrolled asthma reduces patient's quality of life and escalates health care costs. This study assessed the care, community pharmacists provide to asthmatic patients in Trinidad including advice on appropriate medication use, correct inhaler technique, recommending modes to monitor their disease, and when to visit the physician.

Methods:

A convenience sampling cross sectional study was conducted amongst community pharmacies in Trinidad utilising a pre-piloted 17-questions survey via delivery or online to determine the pharmacists' knowledge, practice and perception of care offered to asthmatic patients. Data was analysed using SPSS version 24. Chi Squared and Fischer's exact tests were used to examine group differences.

Results:

Trinidadian pharmacists chose salbutamol (54.2%) as the drug of choice for mild intermittent asthma, 65.2% demonstrated inhaler technique to new patients, but only 21.0% followed up with returning patients. Pharmacists (46.2%) did not recommend the use of peak flow meters or asthma diaries (48.6%). Many (68.1%) dispense prednisolone without a prescription, but counselling rates were high for oral (83.3%) and inhaled (76.7%) corticosteroids. Prescribing the least number of inhalers and doses (33.8%), and re-enforcing inhaler technique (31.0%) were seen as the best methods for improving patient's adherence to inhaled medication.

Conclusion:

Community pharmacists had inadequate knowledge of the updated the Global Initiative for Asthma (GINA)

guidelines for the management of acute asthma exacerbations. Hence, there was a need to implement training programmes to improve knowledge and practice of community pharmacists for enhanced management of asthmatic patients.

O30 - Preliminary Findings Regarding Dental Health Behaviors and Oral Health Related Quality of Life among Adult Dental Patients at Two UWI Clinics in Trinidad

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Objective:

To model the relationship between dental health behaviors and oral health related quality of life (OHRQoL) outcomes for patients in two public dental clinics in Trinidad.

Method:

In a cross-sectional study, adult dental patients of the UWI clinics at Mount Hope and Arima were administered the standard Oral Health Impact Profile questionnaire (OHIP-14) and question items concerning their dental self-care behaviors. OHIP-14 scores were calculated for each patient and these scores were used as the dependent variable in a Generalized Linear Model (GLM) with log links and Poisson distribution. The dental self-care variables were used as independent variables.

Results:

160 patients completed the survey. 61% were female, 46% were Afro-Trinidadian, 22% were Indo-Trinidadian. 50% of the sample was below age 45 years. 62% had completed high school education or higher and 66% were in employment. In the Generalized Linear Mode, difficulty accessing dental care, avoiding dental care because of fear and higher tooth brushing frequency were all

associated with higher Oral Health Impact Profile scores ($p < 0.05$) and therefore lower oral health related quality of life. Higher overall self-rated oral health, using dental floss, and other interdental oral hygiene aids were all associated with lower Oral Health Impact Profile scores ($p < 0.05$) and therefore higher oral health related quality of life. The most practically significant factors were difficulty accessing care (Generalized Linear Model coefficient 0.551) and using dental floss (Generalized Linear Model coefficient -0.199).

Conclusion:

The preliminary findings of this study quantify the potential impact of dental hygiene and access to dental care on dental health outcomes for this patient group.

031 - 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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Objectives:

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

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 cone-beam computed tomography (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%. There were no mid-mesial canals in the mandibular first molars. The prevalence of mid-mesial canals in mandibular second molars was 3.33%. Additional anatomy commonly present include multiple intercanal communications, multiple apical foramina, accessory canals, and apical delta.

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.

032 - Genomic Surveillance of SARS-CoV-2 in the Caribbean

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Objectives:

Establish capacity for rapid whole genome sequencing so that viral genomics might be incorporated into the COVID-19 mitigation and control efforts of Caribbean public health bodies.

Methods:

SARS-CoV-2 sequencing was implemented at the Faculty of Medical Sciences (UWI, St. Augustine) using an Oxford Nanopore MinION® sequencing device and ARTIC whole genome protocols, and applied to SARS-CoV-2 positive samples (Ct <28) submitted by the Trinidad and Tobago (T&T) Ministry of Health (MOH) and Caribbean Public Health Agency (CARPHA). Consensus sequences were generated using the ARTIC bioinformatic pipeline 1.1.0. and assigned to Pango lineages using the Pangolin software tool (github.com/cov-lineages/pangolin) and

visual inspection for additional mutations and sequence ambiguities using COV-Glue (<http://cov-glue.cvr.gla.ac.uk/>).

Results:

The first SARS-CoV-2 whole genomes (n=5 from T&T) were generated and routine surveillance for variants of concern (VOC) implemented in Dec 2020. As at June 27, 2021, a total of 1204 samples were received from 17 CARPHA member states (CMS), including 843 from T&T. Of these, 1055 were sequenced with 89% (n=934) successfully assigned to Pango lineages. Overall, 52 lineages were identified (≤ 17 per country), including first time reports of VOC Alpha (14 CMS), Beta (1 CMS), Gamma (5 CMS) and Delta (1 CMS). Variants of interest Epsilon, Iota and Lambda were detected in four, three and one CMS respectively.

Conclusions:

Capacity for SARS-CoV-2 genomic surveillance was successfully implemented and made available to public health bodies. Identification of VOC has informed/bolstered quarantine and border control decisions and communications regarding vaccines in several countries.

O33 - Confirming the Feasibility of an Open Source, "Direct" RT-qPCR Method for Reliable Detection of SARS-CoV-2 RNA in Clinical Samples

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Objectives:

The ongoing COVID-19 pandemic has caused an unprecedented need for rapid real-time reverse transcriptase-polymerase chain reaction (RT-qPCR) testing. A major challenge however is the availability of key reagents, particularly RNA extraction kits, and the time and labour required to perform the test. The objective of this study was therefore to determine the practical utility of an open access “direct” or “extraction-less” RT-qPCR assay for the detection of SARS-CoV-2.

Methods:

Ten global testing sites, including the University of the West Indies / Ministry of Health SARS-CoV-2 testing laboratory, participated in a series of studies involving a common protocol, common reagents, aliquots of identical pooled clinical samples, and purified nucleic acids. Locally collected extracted and unextracted swab samples were also tested in parallel using the same RT-qPCR assay.

Results: There was 100% concordance across 10 participating labs, with each correctly identifying all positive and negative clinical samples (with strong agreement on CT values). Parallel testing of locally collected extracted and unextracted samples from Trinidad and Tobago revealed a drop in CT values of 1-5 CTs in the unextracted compared to the extracted samples. Inhibition of the RT-qPCR was identified with some viral transport medias in the unextracted samples.

Conclusions:

The direct RT-qPCR method may be considered as a viable, fit-for-purpose resource to address the growing need for population monitoring during a challenging vaccination roll out. However, care should be taken when selecting the viral transport media for use with the extraction-free protocol and the risk status of the population being sampled.

O34 - Identifying Pathogenic *Mycobacterium* Species in Tilapia via Molecular Analysis

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Objective:

To identify the species of *Mycobacteria* infecting tilapia in fish farms in Trinidad and Tobago.

Methods:

Viscera (liver, spleen, gonads, anterior and posterior kidney) from a total of 120 tilapia specimens were collected, from 12 local fish farms. DNA was extracted from the viscera and analyzed via conventional polymerase chain reaction (cPCR), real-time PCR and molecular sequencing. The following sets of cPCR primers were used: MycoF/MycoR and MycoseqF/MycoseqR (nested). For real-time analysis, the Primer Design's qPCR 16s *Mycobacterium* kit was used, according to manufacturer's protocol. Sanger Sequencing was performed using 20 (16%) of the 120 cPCR amplified products.

Results:

From the 120 homogenized tilapia viscera samples, 78 (65%) were positive for *Mycobacterium* via cPCR and qPCR. Partial rpoB gene sequences for 20 (16%), were obtained using nested cPCR amplified products.

Conclusions:

Regarding the tilapia specimens acquired from fish farms across Trinidad and Tobago, 78/120 (65%) tested positive for the presence of *Mycobacterium spp.* Infected animals were identified from 11/12 (92%) of the farms tested. Piscine Mycobacteriosis, a chronic, debilitating, incurable disease of fish, is also zoonotic, with the highly pathogenic species having the potential to cause serious skin and soft tissue infections in humans.

O36 - Non-invasive Measurement of Microvascular Function to Determine Age-related Differences

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Objectives:

Ageing causes deterioration in function and structure of the skin microcirculation that reflects similar deterioration in the microcirculation of other organs. The study examined age-related changes in parameters that are caused by different aspects of microvascular control in the skin.

Methods:

The study used young (n=7) and old (n=10) Sprague-Dawley rats. The animals were sedated and Laser-Doppler Flowmetry recorded from the palmar surface of the forepaw. Spectral composition of the blood flow was analysed using Continuous Wavelet Transform. Statistical analysis was performed with the Statistical Package for Social Sciences (SPSS); significance was examined with one-tail, two-sample t-test.

Results:

- The mean (\pm SEM) weights (of the young and old rats) were 112 ± 7 and 539 ± 11 respectively.
- The skin perfusion for the young and old rats were 371 ± 36 and 189 ± 18 (perfusion units) respectively; the difference was significant with $p < 0.01$.
- There were no significant differences between the young and old rats in the wavelet parameters that measured the myogenic and neurogenic control of microcirculation ($p > 0.05$).
- However, there was a significant increase in the amplitude of the wavelet parameter that measured endothelium-dependent control of the microcirculation: 159 ± 39 in young rats and 57 ± 7 in old rats ($p < 0.01$).

Conclusions:

Continuous wavelet analysis provides a useful non-invasive tool for determining the level of control of the cutaneous microcirculation, and the changes that are associated with ageing.

037 - Glycemic Control, Insulin Resistance and Beta Cell Function in Patients with Type 2 Diabetes Adherent to Metformin Monotherapy in Trinidad

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Objective

To determine the rate of glycemic control in patients with Type 2 diabetes in Trinidad on metformin monotherapy and its associated factors.

Methods:

This cross-sectional study in 168 patients collected demographic data, including history of metformin use. Fasting blood was collected for HbA1c, insulin and glucose levels, and subsequently Homeostatic Model Assessment for Insulin Resistance (HOMA-IR) and beta-cell function (HOMA-B). Descriptive and inferential statistical analyses were performed, with $p < 0.05$ being significant.

Results:

Most patients were female (76%) and elderly (62.7 ± 10.5 years) with mean HbA1c of $7.7 \pm 1.9\%$, and 48% were uncontrolled (HbA1c $> 7\%$). Average duration of diabetes and length of metformin use were 7.0 ± 6.3 years and 6.0 ± 5.7 years respectively. Most patients (79%) were prescribed between 1000 and 2000mg metformin. Total daily dose was the only predictor of glycemic control and higher doses were associated with increased odds of non-control (OR 2.90, 95% CI: 1.3-6.6). Median HbA1c in the 250-500 mg group was 6.4% versus 7.1% in the 1000-2000 mg group ($p = 0.001$). Both HOMA-IR ($p = 0.023$) and HOMA-B ($p = 0.007$) were significantly elevated in females, and positively correlated with BMI ($p < 0.05$). There was a non-significant trend towards more females (34%) being obese compared to men (15%), $p = 0.052$.

Conclusions:

Almost half of patients were uncontrolled, and paradoxically higher metformin doses were associated with uncontrolled disease. Lack of glycemic control was associated with increased insulin resistance and hyperinsulinemia, possibly linked to obesity.

POSTERS

P1- 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

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Objectives:

To assess the knowledge, attitudes and practices (KAP) of The University of the West Indies, St. Augustine Campus students toward the public health regulations and precautions enforced as a result of the COVID-19 pandemic and inquire whether they intended to continue the implementation of these practices when COVID-19 regulations were relaxed.

Methods:

Data from the students were conducted using an online survey containing questions relating to KAP of specific COVID-19 public health regulations and precautions. SPSS 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 for specific regulations, precautions, and COVID-19 pathophysiology, with equal scoring between genders and graduate levels.
- 97.6% exhibited Positive Attitude Scores towards COVID-19 regulations, where those with Negative Attitude Scores tended to be male, 18-27, or postgraduates.
- 52.4% had Poor Practice Scores, tending to be male, >37, or from a non-medical faculty.
- Knowledge and Attitude Scores were statistically associated ($p=0.01$), whereas Knowledge was not associated with Practice Scores ($p=0.127$) and

Attitude was not associated with Practice Scores ($p=0.074$).

- 75.8% claimed continuation of ≥ 3 practices, with frequent hand washing/sanitization being most popular.

Conclusions:

While the knowledge and attitudes of COVID-19 public health regulations and precautions among The University of the West Indies, St. Augustine Campus students were generally good, their practices required improvement. The intention to continue practices was reported in >70.0% of the population.

P2 - 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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Objectives:

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

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.

Conclusions:

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.

P3 - A Systematic Review of the Primary Therapeutic Interventions Used in COVID-19 Patients and the Risk of Reinfection.

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Objective:

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

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 (RASSi) and antiviral treatments $n=10$ (32.26%) mentioned in 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%), 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, accounted for the suppressed immune response and increased 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 treatment of COVID-19 in patients with other chronic ailments is recommended.

P4 - Air Pollution, COVID-19 and Public Health in Trinidad and Tobago: Justification for Revision of the Way We Look at Ambient and Indoor Air Quality

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Objective:

Air pollution has been recognized as a major public health and environmental threat because of its role in forcing global warming and consequent shifts in climate and ocean circulation. Sustainable development goals for 2030 place peoples' health and the health of the environment as central to achievement of an acceptable quality of life. Reconciliation of Trinidad and Tobago's Nationally Determined Contributions (NDCs) to meet its climate change obligations and achievement of the Sustainable Development Goals (SDGs) require strategies for mitigation and adaptation that include regulation and accurate measurement of problematic contaminants, indoors and outdoors.

Methods:

Indoor air quality is dependent on the quality of the ambient air. Problematic aerosolized contaminants in ambient air were determined by ambient air quality measurements using regulatory grade particulate / gas samplers and standard analytical methods used to measure trace metal content in respirable and fine particulates over a 14-month period in Trinidad (March 2015-May 2016).

Results:

Levels of fine and respirable particulates exceeded the WHO (2006) thresholds for the protection of public health over 70% of the time in urban and industrial areas.

- Benzene, nitrogen dioxide, furans exceeded international public health guidelines
- Carcinogenic genotoxins Ni and incinerated Cd (in PM10) concerning to public health
- June-July '15; December '15 – January'16 had the worst air quality.

Conclusions:

Most problematic air pollutants were locally generated, and therefore could be locally regulated. Current local regulations do not align with the international guidelines or epidemiological/toxicological scientific data for the protection of public health and need to be revised. Reduction of disease and co-morbidities from poor air quality will improve the potential for successful adaptation.

P5 - 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

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Objectives:

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.

Methods:

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, and carry out T-test and chi-squared test.

Results:

Of the 77 respondents who 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. Furthermore,

65% of respondents reported weight gain during online classes. About 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. The mean number of days spent exercising decreased from 2.75 during face-to-face classes to 1.73 during online classes. While 67% of cannabis users indicated increased appetite, 33% stated no change. About 33% of illicit drugs users indicated increased appetite and 67% stated no change.

Conclusions:

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

P6 - Impact of COVID-19 on Medical Students' Clinical Training, their Learning Behaviours, Perceived Stress and Performance as Future Medical Professionals

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Objectives:

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

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 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. Thematic approach used to analyse qualitative data.

Results:

145 students responded to web survey. Data analysis revealed:

- 78.6% respondents indicated that online learning strategies had brought an overall change in their learning behaviour.
- 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.
- 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 suggested that online learning was not as effective as face-to-face learning and that revisions and modifications to the delivery of online learning were necessary to facilitate better clinical education during a pandemic. Online courses should be restructured, placing student needs at the forefront.

P7 - The Impact of the COVID-19 Pandemic on the Mental Health of Medical Students in Trinidad

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Objectives:

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

Methods:

This descriptive, cross-sectional online-based study utilized a non-probability sampling technique, acquiring data from medical students enrolled at UWI-STA. The survey collected data from participants, on the psychosocial effect of COVID-19 and generalized anxiety disorders (GAD) associated with the pandemic via the Patient Health Questionnaire (PHQ). Analysis was done using SPSS software.

Results:

The study surveyed 176 medical students; most participants (62.7%, n=111) were 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 experienced them almost daily. 81.5% were also concerned about the semester's lack of clinical exposure training. The most popular positive outcome of the pandemic was increased family time. Moreover, there was a significant relationship between feelings of inability to control important things in student's life and feelings of depression, hopelessness, and sadness ($P < 0.001$). However, there was no association between the negative impact of COVID-19 on a student's physical health and feelings of nervousness, anxiety and being on edge ($P = 0.43$).

Conclusions:

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

P8 - Self-perceived Stress among Medical Students in Relation to their Perceptions on Virtual Learning during the COVID-19 Pandemic

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Objectives:

To evaluate the self-perceived stress among medical students in relation to their:

- socio-demographic background
- educational background
- academic behaviors and habits
- perceptions on virtual learning during the pandemic.

Methods:

Data was collected via a three-part questionnaire, section 1- demographic variables, section 2- self-made questionnaire on students' perceptions on virtual learning and section 3- standardized Perceived Stress Scale (PSS). Descriptive statistics, one-way ANOVA, t-test as well as Pearson's correlation were used via SPSS for data analysis.

Results:

- Data was collected from 229 students. 126 of whom were in second year, 26 in third, 49 in fourth, and 28 in fifth year.
- The mean PSS score was $M \pm SD$: 23.96 ± 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 ± 7.29 and females $M \pm SD$: 24.81 ± 6.82 .
- PSS scores also 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) ($p = 0.046$).
- Overall a moderate negative correlation (-0.49) was found between PSS scores and perceptions on online learning.

Conclusion: Based on overall PSS scoring, students generally appeared to be coping moderately well with the transition to online learning. Special care should be taken

to ensure that students' perceived stress does not raise into the severe category and that measures are taken to address the negative perceptions highlighted in this study.

P9 - Stressors, Psychological States and Health-Related Quality of Life of University Students: Impact of the COVID-19 Pandemic

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Objective:

To describe stressors, psychological states and the Health-related Quality of Life of the University of the West Indies, St Augustine Campus undergraduate students, during the COVID-19 pandemic.

Methods:

A cross-sectional study of the undergraduate students of the University of the West Indies, Saint Augustine campus Trinidad and Tobago was conducted using quota sampling based on gender and faculty distribution. Self-administered questionnaires were distributed through online social media platforms. Information on demographics, stress factors, different psychological states and the HRQoL measured using the 5-level version of European Quality of Life Five Dimension (EQ-5D-5L) (Index and Visual Analogue Scale (EQ-VAS) scores). Descriptive and inferential statistics presented at $\alpha=0.05$ level of significance.

Results:

A total of 326 students age ranged 18 to 40 years (median=21, IQR=20, 22) participated in the study. Academic stress/coursework demands (96.9%) and time management problems (90.3%) were the main stressors. The most prevalent psychological states recorded was stress (95.7%) and lack of energy/burnout (95%). The common EQ-5D health states were 11113 (11.9%) and 11112 (11.6%) reflecting moderate and slight anxiety/

depression respectively. The average EQ-5D index value (0.83) and EQ VAS score (69.5) were lower than Trinidad and Tobago population norms (0.95 and 83.6). 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).

Conclusions:

The COVID-19 pandemic resulted in a high prevalence of academic-related stressors and adverse psychological states. This, combined with a lower HRQoL, indicated the need for appropriate student interventions.

P10 - Youth in Lockdown: Impact of COVID-19 Pandemic on Depression, Anxiety and Loneliness among Young Adults in Trinidad and Tobago

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Objectives:

To investigate the impact of the COVID-19 pandemic on depression, anxiety and loneliness in young adults aged 18-30 years in Trinidad and Tobago.

Methods:

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. Clinically significant levels of depression and anxiety (Patient Health Questionnaire-4 (PHQ4) ≥ 3) were observed in 46.3% and 43.8% of participants respectively. While there were no gender differences for depression and

loneliness, females reported significantly higher anxiety scores ($p < 0.001$) in which 50.8% showed clinically significant scores compared to 36.5% of males. Lesbian, gay, bisexual, and transgender (LGBT)+ youth reported significantly higher scores on both depression ($p = 0.001$) and anxiety ($p = 0.005$) but similar levels of loneliness compared to heterosexual youth. Among LGBT youth, clinically significant depression and anxiety scores were found in 59.3% and 67.8% of participants respectively compared to 44.4% and 36.2% of heterosexual youth. Single youth showed similar depression and anxiety scores compared to those in relationships, but reported significantly higher levels of loneliness, ($p = 0.001$).

Conclusions:

The study findings highlighted greater risk among young women for anxiety, non-heterosexuals for both depression and anxiety and single youth for loneliness. These three conditions were all associated with negative mental and physical health outcomes. Targeted behavioural health and psychological interventions should focus on these groups to improve resilience and well-being during and beyond the pandemic.

P11 - An Investigation into the Mental, Social and Physical Impacts of Online Learning on the Students at The University of the West Indies, St Augustine

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Objectives:

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

Methods:

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

Results:

Ninety-nine 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 such as bodily 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. Although more time was spent with family, participants still experienced increased feelings of social isolation from peers. 49.5% of participants were not involved in social activities during online learning compared to 14.1% during face-to-face learning.

Conclusions:

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

P12 - 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

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Objectives:

To determine the impact of digital screen exposure associated with the transition to online learning on Faculty of Medical Sciences students' eyes and mental health during the COVID-19 pandemic.

Methods:

A cross-sectional quantitative study design using an online questionnaire comprising the following standardized tools: Socio-demographic Data Sheet, Computer Vision Symptom Scale-17 and Perceived Stress Scale -10, were used to assess the effects of learning online on eye strain and mental stress. SPSS-27 used for analyses.

Results:

- Regarding the number of hours spent on devices for online learning, it was found that majority (61.7%) spent 2-4 hours before COVID-19 and > 7 hours (61.7%) during COVID-19 respectively.
- Majority reported moderate levels of mental stress (68.9%) and eye strain (56.1%).
- A weak positive correlation ($r=0.204$, $P<0.05$) was found between perceived stress and eye strain.
- There were age and gender differences in mean scores of eye strain. The age group 24-29 scored more than the 18-23 ($p<0.001$), and females scored more than males ($p=0.001$). On perceived stress, females scored more than males ($p=0.003$).
- There was an association between electronic devices used and mean values of eye strain ($p<0.04$). The program of study was significantly associated with eye strain and perceived stress levels ($p=0.02$). There were differences by ethnicity on eye strain levels ($p<0.001$).

Conclusions:

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.

P13 - "Half a Life Being Lived" – Exploring the Psychosocial Impact of the COVID-19 Pandemic on Caribbean People and the Role of Exercise as a Coping Strategy

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Objective:

To explore the impact of the COVID-19 pandemic on the psychosocial well-being of Caribbean people and the role of exercise as a means of coping.

Methods:

Semi-structured interviews were administered to 14 persons who were selected through convenience sampling. Each person was a citizen of the Caribbean, who either resided within the region or was a member of the Caribbean diaspora. Participants were invited to explore their thoughts, feelings and behaviours during the pandemic. Interpretive phenomenological analysis (IPA) was conducted to identify themes.

Results:

Persons in the study reported relationship and financial challenges; difficulty navigating the virtual world; the paradox of information overload and scarcity; and disruption to Caribbean cultural norms. These factors resulted in feelings of powerlessness, unhealthy coping strategies, anxiety and calculated risk taking. The research also revealed that the occupations that persons held impacted their perceived ability to manage their risk of contracting the virus, and the other pandemic-related challenges. In order to cope with the challenges, exercise served as a means of expanding one's emotional bandwidth and a sense of connection to combat isolation. This was especially so for those in the diaspora, who valued virtual group exercise to connect to one's Caribbean identity. For some participants, constructive narratives about the reality of the pandemic and stronger familial bonds also emerged as protective factors.

Conclusion:

The results of this study could furnish mental health practitioners with strategies to support persons who might be battling with the psychosocial impact of contexts of COVID-19.

P14 - A Review of the Epidemiological Analysis of the Malaria Burden in Latin America and the Caribbean from 2010 to 2020

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Objectives:

To provide a review on the epidemiological analysis of malaria burden in Latin America and the Caribbean from 2010 and 2020.

Methods:

A narrative synthesis for data on malaria cases in Latin America and the Caribbean from January 2010 to December 2020 was conducted using journal articles, WHO reports, PAHO reports, and electronic databases such as MEDLINE and Google Scholar. Keywords used included: "malaria", "epidemiology" and "the Americas". Sixty-six articles/reports were selected for inclusion in the review.

Results:

The Americas accounts for approximately one million cases of malaria every year. Of the five species of Plasmodium that causes malaria in man, *P. vivax* accounts for 74.1% of the malaria cases in the Americas. However, *P. falciparum* is the predominant species in Haiti, Dominican Republic, parts of the Amazon basin in South America, French Guiana and Suriname. Although there was a decrease in the incidence of malaria globally, there has been an increase in malaria cases in the WHO region of the Americas, primarily due to the increased number of cases in Venezuela. In 2016, 78% and 81% of imported malaria cases in Brazil and Columbia

respectively originated from Venezuela. There were approximately 20 cases of malaria detected every year in Trinidad and Tobago by laboratory methods, but this number had been increasing.

Conclusions:

There is continuous need for malaria surveillance especially in countries near Brazil, Columbia and Venezuela. High sensitivity diagnostic methods should be used to monitor the malaria situation in the Caribbean as malaria is not endemic to most Caribbean countries.

P15 - Assessment of the Knowledge, Attitudes and Practices Towards Respiratory Tract Infections Among the Trinidadian Population

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Objectives:

To assess the knowledge, attitudes, and practices (KAP) towards respiratory tract infections among the Trinidadian population.

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 24.6% of respondents being strongly opposed or neutral to mask wearing. About 79.0% strongly disagreed that they should continue going to work as normal if they suspected having the COVID-19 virus and 82.5% 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 were mainly satisfactory, some persons were 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.

P18 - A Review of the Health Risk Behaviours among Adolescents in the English-speaking Caribbean: 2006 to 2020

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Objectives:

The purpose of the study was to search for and locate research; identify themes and summarize papers pertaining to the health risk behaviours among adolescents (10-19 years) from the English-speaking Caribbean (ESC) between 2006 and 2020 and to identify gaps for future research.

Methods:

A search of online databases (PubMed, Med Carib,

UWILinc, UWI Space) as well as hand searching of journals (West Indian Medical Journal) throughout a period of four months (January-April 2021) was conducted. General searches such as "adolescent health in the ESC" were done to assess the broad sub-topics of adolescent risk behaviours after which more detailed searches were then conducted throughout the years using specific risk behaviours identified. Papers identified were screened, combined in tabular form, discussed and a variety of domains were arrived at by consensus. Summaries were written.

Results:

121 papers were identified. Themes included the following: Substance use (42.8% of adolescents aged 12-22 used alcohol in last month, 9.9% used cigarettes and 8% used marijuana; High risk sexual behaviour (47% adolescents initiated sexual activity at 15 years or less, and there was an inconsistency of contraceptive use; Teen pregnancy (15-19-year-old girls had a fertility rate of 60.2 per 1000 and there was no significant decline in teen pregnancies in the last decade); HIV/AIDS (The prevalence rate of HIV among youth aged 15-24 years was 2% of the Caribbean population); Mental health (15% considered suicide ideation; suicide incidence was 1.1 per 100,000); Violence (2.1 deaths per 1000 among those 5-17 years old were due to violence); Obesity (30% of adolescents are overweight or obese); Juvenile delinquency and Bullying were other themes. Few interventions were identified.

Conclusion:

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

P19 - A Descriptive Retrospective Study of Prostate Specific Antigen (PSA) and International Prostate Symptom Score (IPSS) from Participants at a Men's Health Initiative

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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 benign prostatic hyperplasia (BPH) or Prostate cancer.

Methods:

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

Results:

Most men who attended the screening initiative belonged to the 61-65 age group (20.6%), with more than half of them being married (57.7%) and employed (52.6%). Of the patients with comorbidities (17%), the most prevalent included Hypertension (6%) and Diabetes Mellitus (3.7%). 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 ($r = 0.214$, $p < 0.001$ and $r = 0.192$, $p < 0.001$ respectively).

Conclusion:

Our findings were 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.

P20 - The Repository for Caribbean Cancer Publications: Database Development and Publication Trends 2004-2019

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Objective:

In order for the region to optimally access and utilize present research and identify gaps, we developed the Repository for Caribbean Cancer Publications to home publications on cancer in the Caribbean population and diaspora and report on publication trends.

Methods:

A systematic PubMed literature search for the period 2004-2019 (15 years) was developed using keywords related to "cancer" and "Caribbean." Three independent investigators verified included publications. The final database was formatted and hosted in an online database management software. Publication trends over time, by country, cancer type, and income classification were investigated.

Results:

- Of the 4935 publications found, 1194 papers met the inclusion criteria with 803 publications (67.2 %) being on the Caribbean population, 139 publications (11.6%) including multiple Caribbean countries and 252 publications (21.1%) on the diaspora.
- Between 2004-2019 there was an overall increase in publications regionally. Overall, most publications were on breast ($n = 168$, 14.1%), prostate ($n = 156$, 13.1%), cervical ($n = 152$, 12.7%), colorectal ($n =$

80, 6.7%), and lung cancer (n = 36, 3.0%).

- The highest number of papers were published by Puerto Rico (22.8 pubs/year), Cuba (8.3 pubs/year), Jamaica (6.3 pubs/year), Trinidad and Tobago (3.5 pubs/year), and Martinique (2.3 pubs/year).
- The high-income countries (n=10) collectively lead in publications over the 15-year period.

Conclusion:

The Repository for Caribbean Cancer Publications provides an easily searchable database highlighting published work and gaps in knowledge on cancer in the Caribbean and diaspora.

P21 - Effects of Polycystic Ovary Syndrome (PCOS) on the Quality of Life of Women Ages 18-45: A Systematic Review

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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 aged 18-45 with PCOS, contained the keywords "PCOS", quality of life" (QoL) and were published from 2016-2021 in English. PubMed and Medline (EBSCO) databases were searched and reports that met this criteria were accessed and further screened. Data was extracted on the reports, methods, participants, and outcomes. Risk of bias (RoB) was assessed using the National Institutes of Health quality assessment tool and Joanna Briggs Institute critical

appraisal checklist, then an overall judgment and RoB summary was generated for each study design. A narrative synthesis was performed using the Synthesis Without Meta-analysis (SWiM) guideline.

Results:

Fourteen studies were included in the review. Thirteen studies investigated the physical effects of PCOS; mainly obesity/high Body Mass Index, 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 relative extent to which these aspects impact QoL was unknown locally. This justifies further prospective investigation on local populations.

P22 - Successful Management of a Rare Case of a Subglottic Hemangioma in Trinidad and Tobago

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Objectives:

The purpose of this study was to describe the short- and long-term management for successfully treating a patient with a subglottic haemangioma. This includes in the acute phase accurately diagnosing and managing an acute airway. It also includes long term follow up for treatment with beta blockers of the subglottic haemangioma.

Methods:

A case study used to propose a protocol in management

of a subglottic haemangioma in developing countries.

Results:

Subglottic haemangiomas are large masses of blood vessels located in the airway and has the potential to develop into life-threatening conditions. Due to the specific location of a subglottic haemangioma, it is critical for efficient and immediate treatment of it. The patient presented with a subglottic haemangioma of >70% airway lumen obstruction. After interval management with beta blockers there was no further detectable luminal obstruction.

Conclusions:

The use of beta blockers has many advantages: it is non-invasive, exhibits a rapid onset, allows for the avoidance of a tracheostomy, prolonged steroid therapy, the manipulation of subglottic tissues and prolonged periods of intubation. It has a low complication rate and inexpensive. The use of beta blockers proved to be a successful mode of treatment for subglottic haemangioma and by extension we report the first successfully treated case of a subglottic haemangioma in the Caribbean.

P23 - Supracricoid Laryngectomy in Trinidad Tobago: First Report in English Speaking Countries in the Caribbean.

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Objective:

To report the introduction of the Supracricoid Laryngectomy as a larynx function preservation surgical procedure in the treatment of laryngeal carcinoma in Trinidad and Tobago. The laryngeal cancer was diagnosed in 343 cases (including both sex) in Trinidad and Tobago in the period 1995-2009. It represented 1.8% of all diagnosed cancers with Age-Standardised

Rate (ASR) of 1.8 per 100 000 hab. in Trinidad and Tobago. Males represented 93.5% of all cases with a ASR of (3.5 per 100 000). The mortality in same period was of 184 cases in both sex, ASR (1.5 per 100000) with (94.5%) of male death with 174 cases (ASR 1.8 per 100 000).

Methods:

A retrospective (3) case series was presented with surgical clinical and oncologic evolution of the operated-on patients.

Results:

The report of satisfactory results during and after surgery and the evaluation of the voice, swallowing, phonation were monitored as preserved functions of the larynx after the procedure with adequate oncologic results were showed with the high satisfaction of the patient and improving quality of life.

Conclusion:

The Supracricoid Laryngectomy is a functional procedure that can preserve the function of the larynx and offer safe oncologic report and good quality of life in selected patients with laryngeal carcinoma in Trinidad and Tobago. It is in the surgical arsenal of the Ear/Nose/Throat surgeons in Trinidad and Tobago.

P24 - Assessment of the Immunization Program at the Medical Research Foundation, a Major HIV Treatment Site

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Objective:

To assess the immunization program for patients living with HIV (PLHIV) attending Clinic at the Medical Research Foundation in preparation for the addition of the COVID-19 vaccine.

Methods:

This was a retrospective study of vaccination uptake

between January 2019 and December 2020. Paper based records of the vaccinations offered at the Medical Research Foundation (MRF) were reviewed.

Results:

Vaccine distribution increased to 2327 in 2020 from 1595 in 2019. Human Papillomavirus (HPV) distribution increased from 25% to 41%, Hepatitis B increased from 12.4% to 27.7%. Influenza distributions increased from 16.3% to 25.3%. Pneumovax distribution however decreased from 14% to 6%. Uptake by males was greater at 52.8 % of the total vaccinations. With the exception of HPV, uptake in individual vaccinations was greater in males.

Conclusion:

The presence of a dedicated vaccination nurse who educated and recruited waiting clients might have accounted for the increases identified. The Women's Health Clinic, where the HPV vaccine was offered, possibly contributed significantly to its numbers. This review gauges well for the addition of the COVID-19 Vaccination to the immunization program as it showed willingness of clients to be vaccinated. The low uptake of Pneumovax could possibly be due to the limited knowledge of this particular vaccine, and points towards a level of hesitancy to new vaccinations. Further study is required to determine levels of vaccine hesitancy and reasons as this could gravely affect the uptake of the COVID-19 vaccine.

P25 - A Retrospective Study of Ruminant Limb Fractures Presenting at the Large Animal Hospital, School of Veterinary Medicine, The University of the West Indies

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Objective:

A retrospective evaluation of the ruminant cases from 2018 through 2021 was conducted to investigate the epidemiology of ruminant limb fractures.

Methods:

Case records at the Large Animal Hospital were analyzed to ascertain the frequency of ruminants presenting with limb fractures. Individual files were then reviewed to determine the specific bone(s) fractured, the number of bones fractured, the treatment and outcome of each case. Data was tabulated using Microsoft Excel and analyzed using SPSS version 22.

Results:

Twenty-three ruminant cases (18 females and 5 males) presented with limb fractures. Caprids (65.2%) accounted for the most fracture cases, followed by ovis (26.1%) and bovids (8.7%). Most animals (56%) were less than one year of age. Most animals (73%) presented with one fractured bone. Metacarpal 3 (34.7%) was most frequently fractured, followed by Metatarsal 3 (26.1%) then Tibia (26.1%). A conservative (bandaging, splinting, casting, etc.) approach (52.1%) was the most common method of treatment, followed by surgical (17.4%), while some owners declined treatment (17.4%). Successful recovery was defined as a complete return to form and function at 68.4% (13/19). 15.8% (3/19) of treated cases died (infection/ slaughter) while another 15.8% (3/19) were lost to follow up.

Conclusions:

Overall, there was a 68.4% success rate in treating ruminant fractures. Depending on the fracture type, conservative techniques offer a cost-effective option to farmers. Distal limb fractures were the most common observed and may be associated with improper flooring.

P26 - Evaluation of Arsenic (Total and Inorganic) in Poultry and Poultry Processed Products Both Imported and Locally Sourced

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Objectives:

To evaluate total and estimate inorganic arsenic (iAS) levels in local and imported poultry and poultry processed samples and to evaluate whether they are safe for consumption according to United States Environmental Protection Agency (US.EPA)'s reference dose (RfD) and estimated daily intake (EDI).

Methods:

Total levels were determined by acid digestion and subjecting for analysis using a hydride generation-atomic absorption spectrometer. The samples included one imported and three locally produced commercial brands; and seven private and three organically grown local brands. There were 10 processed chicken products including four locally produced and six imported commercial brands.

Results:

All three local samples of organic chicken fell within the RfD while all seven private poultry depots exceeded the RfD. Of the three local commercial samples analyzed, arsenic was detected in 1 brand with the EDI for estimated inorganic arsenic (iAs) for both samples exceeding the RfD – breast containing average iAs 872.52 ± 2.30 ug/kg with an EDI of 2.47 and thigh containing 963.79 ± 37.57 ug/kg with an EDI of 2.73. Of the imported chickens, levels of one brand exceeded the RfD and therefore deemed unsafe for consumption. Of the 6 imported processed samples, one exceeded the RfD by 73% having an estimated inorganic arsenic intake of 388.02 ± 45.60 and EDI of 1.10. All local processed products exceeded the EPA RfD.

Conclusions:

Two out three local brands, and all samples of organic chicken were deemed safe. All four local commercially processed chicken products and one out of six imported commercially produced samples were unsafe for consumption.

P27 - A Study on Knowledge, Attitudes and Practices of Community Pharmacists to Antibiotic Resistance in Trinidad

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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 from January 2021 to March 2021 and analysed using the SPSS software tool.

Results:

The response rate to the online survey was 54.7% (82/150). Approximately 46.9% of the respondents have been licensed pharmacists for 3-6 years, 61.7% of the community pharmacists were females, with 32.9% being between 25-29 years. Majority (96.3%) of the pharmacists had good knowledge regarding antibiotics and a good proportion (89%) had good knowledge of the laws surrounding dispensing of antibiotics. Also, 74.3% (61) had a positive attitude towards antibiotic use and 97.6% (80) had good practice of antibiotic use.

Conclusion:

The pharmacists had generally good knowledge, a

positive attitude and good practice regarding antibiotic use and dispensing; however, more research is needed to further provide evidence and solutions regarding the problem.

P28 - The Prevalence of the Use of Prescription Medication Versus Alternative Methods to Effectively Treat Sinusitis Symptoms in Trinidad and Tobago

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Objective:

To investigate the use and perceived efficacy of complementary and alternative medicine (CAM) methods to treat the symptoms of sinusitis in Trinidad and Tobago.

Methods:

Subjects were randomly chosen from five locations in Trinidad and Tobago to complete a 20-item questionnaire. Data collected included demographic information, use of CAM and traditional medicines for treating sinusitis and the commonly used treatments including preferences. Analyse-it (Analyse-it Software Ltd, Leeds, United Kingdom) was used to perform the statistical analysis.

Results:

173 questionnaires were completed and available for study.

- 67% of subjects were diagnosed by a doctor as having sinusitis.
- 46.4% of subjects diagnosed with sinusitis used CAM compared with 36.8% of self-diagnosed subjects.
- 54.7% of subjects used antihistamines as a traditional medicines for sinusitis symptom relief.

- CAM was perceived as more effective than traditional medicines for the treatment of sinusitis.
- 42.5% of subjects indicated that tea is the most common way of taking CAM. As such 21.9% of subjects expressed that ginger tea was most effective in relieving sinusitis symptoms.
- Alternatively, 13.7% of subjects stated that saline irrigation of the nasal passages was also a common and effective CAM.

However, 48% of subjects indicated that a combination of both methods was most effective.

Conclusion:

The use of CAM was prevalent in Trinidad and Tobago and about half of the subjects believed that CAM and traditional medicines were most effective.

P29 - Natural Bioactive Polypeptides: A Study Toward the Clinical Potential in Trinidad and Tobago and The Bahamas

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Objectives:

The knowledge of natural bioactive polypeptides and their potential biomedical properties remains limited, attributable to research deficits. In this study, we reviewed the availability, clinical knowledge, and application of such drugs inclusive of drug familiarity by Bahamian and Trinbagonian clinicians and their tendency to prescribe these medications.

Methods:

A total of 200 questionnaires were distributed, in addition to 10 drug utilization forms to clinicians across health

facilities. 100% of the surveys distributed were completed accounting for the total sample size. The questionnaires and drug utilization forms were used to extract information on the demographics, formulary use and ability to share listings of natural peptide-based drugs. From the data collected, trends were determined about the presence of peptide-based drugs within the sample population, using IBM SPSS Statistics-27 for analysis.

Results:

69% of clinicians rated their knowledge of medications derived from natural bioactive polypeptides at ≤ 5 (with a rating of 10 being most knowledgeable). 2.5% of participants displayed high knowledge of the topic. Trinbagonian clinicians were significantly more knowledgeable than Bahamian clinicians ($p < 0.001$). The Bahamian and Trinbagonian clinicians each had a mean likeliness to prescribe natural peptide-based drugs of 4.30 and 4.39 out of 10 respectively. Therefore, despite Trinbagonian clinicians showing a greater knowledge, there was no significant difference in the likelihood of prescription in both countries ($p = 0.814$).

Conclusions:

Knowledge of natural bioactive polypeptide drugs remained deficient. The major contributing factor was the minuscule quantity of these drugs in the countries' formularies. However, clinicians expressed interest in exploring alternatives.

P30 - Traumatic Facial Injuries in an Oral and Maxillofacial Unit in Trinidad: A Pilot Study

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Objective:

Investigate the patterns of facial fractures presenting to an oral and maxillofacial service at a teaching hospital in Trinidad.

Methods:

A retrospective study was conducted to obtain information on traumatic maxillofacial and mandibular fractures from the Oral and Maxillofacial unit at the Eric Williams Medical Sciences Complex, Trinidad and Tobago. Data was collected from February 2019 to February 2020 from 174 patients. For each patient, the month of presenting injury, age, gender, ethnicity, site, mechanism of injury and fracture type were recorded. Within patients presenting with a physical assault or motor vehicle accident, prior alcohol consumption was noted.

Results:

In the (174) patients that reported with fractures, 72% were male. The mean age was 34.9 years and they were mainly from the ethnicity of Afro-Caribbean (63.2%) followed by East Indian (30.5%). Two hundred and thirty-one (231) fractures were reported in this study with the highest number of fractures occurring in the 20-29 years age group (22%) and most common fracture type was orbital floor fractures (31.6%). Fractures occurred predominantly on the right side (43%). The predominant cause of traumatic fracture was physical assault (37.9%) followed by accidental injury (25.9%). Alcohol consumption was reported in 21/66 patients within the physical assault group and 6/27 in the motor vehicle accident group.

Conclusion:

The main cause of traumatic maxillofacial injury was physical assault and generally in young adult males. Orbital floor fractures comprised the most common fracture type.

P31 - Aetiology of Non-Carious Cervical Lesions: A Mini Review

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Objectives:

To review the evidence on the aetiological factors associated with non-carious cervical lesions (NCCs).

Methods:

The search was conducted during the period March 2021 - June 2021 on six electronic databases (Uwiling, PubMed, Ingenta connect, OVID database, Web of Science and SCOPUS) to retrieve articles published between 2001 - 2021. The search terms: "abfraction" AND "NCCLs", "abrasion" AND "NCCLs", "erosion" AND "NCCLs", "occlusal forces" AND "NCCLs", "malocclusion" AND "NCCLs", "toothbrushing" AND "NCCLs", "diet" AND "NCCLs", "age" AND "NCCLs", "medical conditions" AND "NCCLs" were used. The titles and abstracts of articles on the aetiology of NCCLs were screened based on the application of the inclusion criteria and the quality of the studies. The data was extracted and recorded using an Excel sheet and findings were summarized.

Results:

The initial search resulted in 160 articles. Forty-nine articles were selected after screening their titles and abstracts and 12 articles were included in the review after full-text screening: ten cross-sectional and two case-control studies. Four studies (three cross-sectional, one case control) and two cross-sectional studies respectively, supported the association of toothbrushing technique and toothbrushing duration with NCCLs. An association with NCCLs was also found 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). Age was found as a risk factor for NCCLs.

Conclusions:

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 associated with the aetiology of NCCLs, suggesting the multifactorial aetiology of NCCLs. However, the studies reviewed provided evidence at a lower level of hierarchy. Hence, further prospective longitudinal studies on this topic are warranted.

P32 - Telehealth: Acceptability and Feasibility amongst People Living with HIV (PLHIV) in an HIV Clinic

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Objectives:

To assess the acceptability and feasibility of telehealth, in an HIV clinic, as a guide to optimising its use.

Methods:

A cross-sectional study, utilising convenience sampling, was performed at the Medical Research Foundation (MRF). A questionnaire was administered to collect basic demographic data and clients' understanding of and openness to telehealth, their access to technological devices and to the internet. Descriptive statistical analysis was performed utilising SPSS.

Results:

During the period August 2020 to January 2021, a total of 251 persons participated in the study, age range 18-80 years, 60% of whom were female. Of the respondents, 87.7% reported access to a mobile phone, 34.9 % reporting access to a computer, 87.7% reported previous telephone consultations with staff at the MRF and 53 % reported they were either likely or very likely to access telehealth consultations. The most common reasons for refusing telehealth were fear of inadequate quality of care (15%) and the perceived lack of privacy due to living or work arrangements (15%). The preferred method of consultations was telephone consultations at 51.6 %, text messaging at 46.4 % and a preference of consultation time between 2pm – 6pm (44%). The main reasons for acceptance of tele-consultations were reduced waiting time (61.5 %) and reduced travel time (60.7%) with the lack of internet (30.2%) as the greatest limitation.

Conclusions:

In the era of the COVID-19 pandemic, telehealth consultations are a feasible and desired method of care for PLHIV. Privacy and confidentiality concerns and access to the internet should be addressed.

P34 - Descriptive Analysis of a Community Paediatrics Hybrid Telemedicine/Face-to-Face Service during the Implementation of Community Mitigation Strategies in Response to the COVID-19 Pandemic

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Objective:

To describe reasons patients accessed the Community Paediatrics service of the SWRHA during the implementation of community mitigation strategies for COVID-19.

Methods:

All patients accessing the service during September to October, 2020 were included. This was a descriptive study looking at morbidity data for these patients. Data was recorded on Microsoft Excel and percentages of patients accessing the service were recorded. Odds ratios (OR) were calculated to describe associations.

Results:

There were 204 consultations: 114 (55.9%) telemedicine and 90 (44.1%) face-to-face. 99 (48.5%) were new patients. The parents of new patients had lower odds of attending for face-to-face consultation compared with existing patients (OR 0.27; 95% CI 0.15-0.49; $p=0.0001$).

7 children (3.4%) attended face-to-face to complete assessments. 10 (5%) children attended but were not required to be present.

42 (20.6%) attended for Disability Assistance Grant (DAG) forms to be completed. The odds that a parent of a child with Autism Spectrum Disorder (ASD) or suspected ASD attended regarding the DAG form was higher compared to the rest of the sample (OR 2.25; 95% CI 1.1-4.5; $P 0.02$).

22 (10.8%) consulted for Special Educational Needs

(SEN) medical reports.

34 (16.6%) attended for prescriptions: 14 (7%) Risperidal and 12 (6%) Methylphenidate.

8 (4%) consulted regarding facemasks. 6 (3%) consulted for behavioural problems.

Conclusion:

Consultations were mainly telemedicine and face-to-face without the child present. Reasons for consultations included, DAG forms, prescriptions, SEN reports, behavioural problems and letters regarding facemasks. Further research regarding the effectiveness of the hybrid telemedicine/face-to-face system is required.

P35 - Knowledge and Perception of Physicians about Telemedicine Technology in Trinidad and Tobago

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Objective:

To find out the knowledge and perception of telemedicine among the aspiring medical professionals and practitioners at the Faculty of Medical Science, University of the West Indies towards telehealth and assess if this healthcare medium can be sustainable in Developing Countries.

Methods:

The researchers conducted an institutional-based cross-sectional study which used purposive sampling to assess the population of medical professionals and registered 5th year medical students. The data was obtained from a structured self-administered questionnaire which was

distributed through the participant's institutional email addresses. Analysis of data was conducted using SPSS version 27.

Results:

It was observed that 71% of the sample believed that telemedicine would reduce the occurrence of white coat syndrome and encourage patients to express themselves freely. Approximately 95% of participants indicated 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 believed that the quality of care of telemedicine would be inferior when compared with traditional care.

Conclusion:

The implementation of telemedicine in Developing Countries was 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.

P36 - A Study on the Choice of Specialty among Medical Students at the Faculty of Medical Sciences, St. Augustine, UWI, Trinidad and Tobago, West Indies

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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).

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 21.4%) students responded to the survey with 73.6% females and an average age of 22.5(SD=3.3) The ten most popular responses for specialty of first choice were unsure (9.5%), Cardiothoracic Surgery (8.7%), General Pediatrics (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 Orthopedics (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 specialist 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 more females choosing a Paediatric field ($p=0.018$) and more 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.

P37 - 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

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Objective:

To compare online and traditional methods of curriculum Delivery in COVID-19 times.

Method:

A retrospective cohort study was conducted whereby students in Years 1-2 of the Medical and Dental programmes participated in a voluntary 48-item online questionnaire. The questionnaires were distributed via an online link to the students and participants were recruited through convenience sampling. All quantitative data were analyzed 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; 93% of participants were in the medical 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:

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

