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VIRTUAL SYMPOSIUM
THE UWI ST. AUGUSTINE
COVID-19 RESEARCH

**Evidence to Inform a Multi-Disciplinary
Response to the Pandemic**

Thursday 3rd September, 2020

VIRTUAL SYMPOSIUM

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Caribbean Centre for Health Systems Research and Development

**The UWI - St. Augustine COVID-19 Research:
Evidence to Inform a Multi-Disciplinary Response to the Pandemic**

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Introduction

The UWI – St Augustine COVID-19 Research Evidence to Inform a Multi-disciplinary Response to the COVID-19 Pandemic

Trinidad and Tobago is a twin-island Caribbean country with a population of about 1.4 million. On the 12th March, 2020, the Ministry of Health reported its first COVID-19 positive patient. The first wave of COVID-19 infections ended in April, 2020 with a total number of positive cases at one hundred and eighty-two, with eight deaths. To date a total of one thousand seven hundred and fifty-nine positive cases with twenty-two deaths have been reported marking the second wave of infections across the twin-island.

The UWI COVID-19 Task Force aims to leverage the University's knowledge and expertise to assist the Caribbean in its readiness and response to the pandemic. The UWI's Faculty of Medical Sciences (St. Augustine) and the Caribbean Centre for Health Systems Research and Development (CCHSRD), is pleased to share this research at The Symposium on the 3rd September, 2020. The event wishes to highlight some of the ongoing research being conducted by the staff at The UWI St. Augustine campus.

The collection of abstracts provides viewers and participants with some insight into the multi-disciplinary work being conducted across the various Faculties of Social Sciences and Science and Technology. This event aims to contribute an evidence-informed approach to addressing the COVID-19 pandemic in Trinidad and Tobago and the Caribbean.

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Dr Katija Khan is a consultant psychologist and Lecturer in Clinical Psychology in the Psychiatry Unit, Faculty of Medical Sciences, The UWI. She was educated at The UWI and University of Hull, England. Prior to joining The UWI, she was a Post-Doctoral Research Associate in The Medical School, University of Sheffield. She is a member of the regional UWI COVID-19 Task Force and its Psychosocial Unit. She is a public advocate promoting mental health and well-being across the Caribbean and is currently involved in research projects assessing the psychological impact of the pandemic on The UWI staff, students, service workers and the public.



Dr Katija Khan

Trinidad and Tobago COVID-19 First Wave: Public Agreement with Public Health Prevention Measures (PHPM)

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Objective

Effectiveness of public health prevention measures (PHPM) is contingent on agreement and compliance among citizens. Gender differences showing greater encouragement and compliance for preventative behaviours among females (e.g. hand washing, NCD clinic attendance, medication uptake) have been routinely reported. This study investigates public agreement with COVID-19 PHPM during the first wave of the pandemic.

Methodology

A convenience sample of 1,206 adults participated in an online survey in June 2020. Levels of agreement with 14 PHPM on hygiene (e.g. handwashing and mask wearing), social behaviours (e.g. avoiding gatherings, non-essential trips), closures (e.g. businesses, borders) and sanctions (e.g. quarantining, fines) were analysed through frequency distributions and chi-square tests.

Results

964 persons aged 18–81 years (Mean=40, SD=12), comprising 66% females, completed the survey and reported high agreement levels for all PHPM: highest for quarantining of suspected cases (97.7%) and lowest for avoiding visits to friends and family (81.7%). While agreement did not differ by education level, significant gender differences were found where fewer men showed agreement on half of the PHPM including avoiding visits to friends/family ($p=0.002$), closure of food places ($p<0.001$), closure of non-essential businesses ($p<0.001$), and staying at home ($p<0.001$).

Conclusions

Results are consistent with studies reporting females tend to endorse more PHPM than men. The importance of consistent and gender-specific targeted messaging for improving agreement and subsequently compliance with PHPM is also highlighted, especially given higher COVID-19 complication rates and mortality among men. A second wave repeat survey is warranted given subsequent exponential increase in cases.

Dr Balkaran is a lecturer in Special Needs Dentistry and Coordinator of the Special Needs Dental Clinic, School of Dentistry at The University of the West Indies, St. Augustine. There, she lectures in Gerodontology and Special Care Dentistry and Ethics and Professionalism. Additionally, she is involved in community dental outreach programs and research. Her research interests focus on general health and oral disease, with a strong emphasis on promoting oral health and preventing disease, particularly amongst medically compromised groups.



Dr Ramaa Balkaran

Stressors of Dental Academics at the University of the West Indies

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Objective

COVID-19 is a pandemic that has affected health care personnel worldwide. Dentists have a high risk of contracting COVID-19 given the face to face contact required in daily interactions with their patients. This study aimed to determine the stressors experienced by academic dentists due to the COVID-19 situation in Trinidad and Jamaica.

Methodology

All academic staff at The UWI Dental Schools (St. Augustine and Mona campuses) were invited to complete a self-reported questionnaire, via an email containing the link to an online platform. This was conducted during a one-month period from May to June 2020. The questionnaire was pilot tested prior to dissemination.

Results

Thirty-two dental academics responded; the response rate was 61.54%. More than a third (34.4%) were in the 25-35 age group, 71.9% were females. The most common specialty (20.7%) was restorative dentistry, however, most (44.8%) stated "other" for specialty. Most (75%) were from the St. Augustine campus and 38.7% had been in academia for 5-10 years. The most common cause of apprehension was the fear of infecting their family, 40.6% were often worried and 37.5% were worried all the time. When locus of control was determined, just over half (53.1%) felt they were in control of protecting themselves while 34.4% felt that external factors control their lives.

Conclusions

The findings suggest that academic staff at The UWI Dental Schools (Trinidad and Tobago and Jamaica) were stressed by the COVID-19 situation. The vast majority were worried about infecting their families.

Dr Sandra Reid is a consultant psychiatrist, senior lecturer in Psychiatry and Deputy Dean of the clinical programmes at the Faculty of Medical Sciences, The UWI, St. Augustine. She is also Director of the Caribbean Institute on Addictive Disorders and research associate at the Institute for Gender and Development Studies, The UWI, St. Augustine. Dr Reid has received multiple awards for excellence in teaching and research and is an avid researcher. Her work focuses on public health psychiatry where she explores the biopsychosocial determinants of mental illness, and advocates for interdisciplinary programming and policy change to reduce harm and promote mental health.



Dr Sandra Reid

Clinical Student Experience of Emergency Remote Teaching at the Faculty of Medical Sciences, St. Augustine: Preliminary Findings

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Objective

The COVID-19 pandemic challenged medical educators to complete the curriculum while keeping students safe. At the Faculty of Medical Sciences, teachers and students in all health disciplines had to make a rapid shift to remote teaching. This study reports on the experience of clinical students during the COVID-19 lockdown.

Methodology

Final year students (n=276) in six clinical disciplines completed an online cross-sectional survey on their perception of the learning environment, ease of teaching, challenges experienced and effectiveness of strategies used. Twelve students also participated in a focus group discussion.

Results

Students were mostly satisfied with the ease of teaching since it was self-paced (94.9%) and in their own space (92.3%); the formative feedback received (92.4%) and effective communication by teachers (88.4%). The main challenge was unstable internet connectivity (65.5%). Qualitative analysis revealed ease of learning and decreased intensity of workdays as the two main reasons for students' satisfaction. Medical students underscored the advantages of student exposure to a wider range of teachers. Students in all programmes, were concerned about decreased social interactions. Students would not recommend online teaching strategies for clinical instruction (70.2%).

Conclusion

Clinical students suggested an important role for social connectedness in medical education. They did not consider online strategies a useful approach to achieving clinical objectives, but recommended online strategies to reduce physical demands on students and to allow a more equitable exposure to all teachers.

Dr Sandeep Maharaj is a pharmacist and has done his graduate studies in Business Management (MBA and DBA). He serves as a lecturer in the School of Pharmacy and also as the Associate Dean Distance, Education and Planning and Director of the Entrepreneurship and Business Transformation Office for the Faculty at The UWI, St. Augustine. DrMaharaj is the PHA's Global Outreach Fellow (at the Planetary Health Alliance, based at the Harvard T Chan School of Public Health). He has also been appointed to the leadership committee for Clinicians for Planetary Health.



Dr Sandeep Maharaj

An Assessment of the Preparedness of Primary Health Care Facilities in Trinidad and Tobago for COVID-19: Preliminary Findings

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Objective

To assess the capacity of Primary Health Care (PHC) facilities for the management of COVID-19 in the following domains: human resources; information, education, communication; surveillance; triage and early recognition; diagnosis; isolation; case management; infection control and prevention; and logistics.

Methodology

Assessments of the facilities were conducted using an international online COVID-19 PHC Health Facility Assessment tool, designed to measure the preparedness and availability of resources for the management of COVID-19 infections. Senior healthcare representatives, for each facility, completed the tool. Stata v.15 was used to generate descriptive statistics.

Results

To date, data have been collected for 77 facilities and preliminary analysis suggests:

- $\geq 70\%$ of facilities reported most of the assessment criteria had been fully operational/actioned for the following domains: human resources; information, education and communication; surveillance; and triage and early recognition.
- 77% of the facilities reported the presence of a diagnosis protocol. However, 7-51% reported availability (in sufficient supply) of equipment and supplies for sample collection and storage.
- $< 40\%$ of the facilities reported fully operational procedures for visitor restriction and the maintenance of records of persons entering isolation rooms.
- Facilities reported a sufficient supply of oxygen cylinders (58%), pulse oximeters (44%) and oxygen systems (40%), medical masks (36%), surgical scrubs (23%), and long cuffed gloves (14%). A laboratory where samples should be sent was identified by 68% of facilities.

Conclusion

While the capacity to manage COVID-19 in PHC facilities seems adequate for some domains, some areas can be strengthened.

Lori Selby holds a B.Sc. in Industrial Engineering and was employed in senior positions in the Manufacturing Industry prior to becoming an Instructor at The University of Trinidad and Tobago. She is a student in the MSc. Statistics Program, Faculty of Science and Technology, The University of the West Indies, St. Augustine and is interested in the application of statistics to address real world challenges. Ms Selby began conducting COVID-19 related research in fulfilment of her MSc. Statistics Thesis requirements. She has also served in numerous community transformation projects and youth mentorship programs as a Director in a non-profit organisation.



Ms Lori Selby

Knowledge, Attitude and Practice (KAP) Toward the Novel Coronavirus (COVID-19) in Trinidad and Tobago

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Objective

The spread of infections by the novel Coronavirus (2019-nCoV) or Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), began in Wuhan China in December 2019 and was reported by the World Health Organization to be a Public Health Emergency of International Concern by January 2020. Extraordinary measures were implemented in Trinidad and Tobago to limit its spread after the first local case of infection was confirmed on 12th March 2020. This study was designed to gauge the population's knowledge, attitude and practice towards COVID-19.

Methodology

A validated questionnaire was distributed online and data was collected from 530 respondents aged 18 years and over.

Results

The majority of respondents were of the female gender (348, 65.7%), aged 25-34 years (147, 27.7%) and well educated (376, 70.9%). Although many (462, 87.2%) were confident that Trinidad and Tobago could win the battle against COVID-19, a large majority, (504, 95.1%) acknowledged that COVID-19 threatens the nation's economic stability.

Conclusion

Measures toward continued public education should seek to reduce the gap between knowledge and desirable practices. Negative disease related stigmas should also be addressed and debunked.

Dr Sandra Reid is a consultant psychiatrist, senior lecturer in Psychiatry and Deputy Dean of the clinical programmes at the Faculty of Medical Sciences, The UWI, St. Augustine. She is also Director of the Caribbean Institute on Addictive Disorders and research associate at the Institute for Gender and Development Studies, The UWI, St. Augustine. Dr Reid has received multiple awards for excellence in teaching and research and is an avid researcher. Her work focuses on public health psychiatry where she explores the biopsychosocial determinants of mental illness, and advocates for interdisciplinary programming and policy change to reduce harm and promote mental health.



Dr Sandra Reid

COVID-19 Concerns and Coping among Persons with Chronic Medical Illnesses: Preliminary Findings

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Objective

To examine the public mental health impact of COVID-19 in Trinidad and Tobago early in the pandemic.

Methodology

A cross-sectional population-based online survey was circulated via social media during the first week of July 2020. Demographic data, respondent concerns regarding COVID-19, behavioural changes in response to the pandemic and psychological symptoms were analysed using SPSS v25, to determine differences between persons with and without a chronic medical illness (CMI).

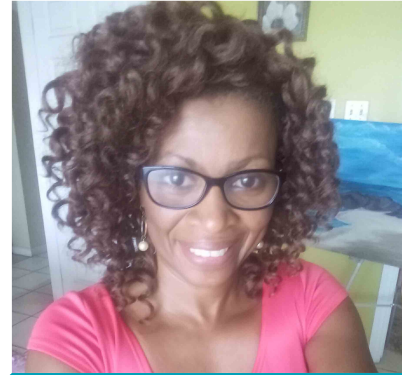
Results

Of 1,286 respondents, 219 (17.0%) self-identified as having a CMI. Persons with CMIs were significantly older ($p < 0.001$) and most were female ($p < 0.001$). The most common concern was for the overall health and wellbeing of family and loved ones (60.3%). More persons with a CMI were concerned about personal health and well-being, catching COVID-19, availability of food and medicines, access to appropriate medical care, and the need to wear masks. ($p < 0.05$ for all). Anxiety rates were not different between persons with and without a CMI, but rates of moderate/severe depression were higher amongst persons with CMIs ($p = 0.047$). Fewer persons with a CMI expressed feelings of hopefulness about the future ($p = 0.002$). Nicotine use did not significantly change during the early stage of the pandemic but among persons with CMI, marijuana use increased post-lockdown ($p = 0.025$).

Conclusions

The nature of the relationship between chronic medical illness, depression, and marijuana use needs to be explored. Nicotine has been described as a risk factor for severe COVID-19 illness. Similarly, the effect of marijuana on COVID-19 should be a focus of attention.

Dr Nyla Lyons is a practicing Public Health Specialist with over 15 years of experience developing country capacity and enhancing relationships among the public, private and non-governmental sectors in the United States and in the Caribbean. Dr Lyons holds a PhD in Medical Sociology, a Master's in Business Administration and has extensive experience working in diverse healthcare delivery settings. Over the past ten years, Dr Lyons has worked with international multilateral and private donor agencies to develop, implement and evaluate interventions that mitigate the spread of HIV/STIs and other infectious diseases.



Dr Nyla Lyons

Using Telehealth to Address the Psychological and Health Needs for Persons with HIV during COVID-19 Pandemic at the Medical Research Foundation of Trinidad and Tobago

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Objectives

The Medical Research Foundation of Trinidad and Tobago (MRFTT) is the largest HIV treatment facility in the country accounting for ~75% patients on antiretroviral therapy (ART) nationally. With the announcement of the first confirmed cases of SARS-CoV-2 in Trinidad and Tobago, the MRFTT began implementing Telehealth services. The program addresses the psychological and health needs of patients during the COVID-19 pandemic, while reducing the risk of exposure for clinicians and patients.

Methodology

A list of patients is collated and called in advance of their scheduled appointments. Patients are screened for COVID-19 risk factors over the phone by trained social workers and clinic staff. Patients expressing psychosocial challenges related to their HIV disease and/or COVID-19 receive appropriate counselling. Patients identified as having psychological distress are further referred to the psychologist for tele-therapy for further assessment and appropriate psychological interventions. Virtual consultations will commence in September, 2020.

Results

During the period March–June 2020, the MRFTT successfully reached 80% of patients scheduled for their routine clinical visits via telehealth assisting to refer stable patients, those virally unsuppressed and others for appropriate care; 30% of patients were further referred for tele- therapy. Telehealth improved access for patients with transportation difficulties, those with challenges accessing in-person care, and vulnerable patients experiencing stigma.

Conclusions

Telehealth is a critical clinical response during the COVID-19 pandemic and the MRFTT is able to maintain care for PLHIV to reduce the risk of exposure for COVID-19 infection and therefore limiting the potential for community spread of infections.

Dr Diedron Lewis holds a PhD in Economics (high commendation) from the University of the West Indies, and specialises in International Trade and the movement of skilled workers and Health Economics with a focus on population health and economic growth. Dr Lewis has worked with the Department of Economics, The UWI, St. Augustine for over 10 years, in the capacity of instructor and part time lecturer in Microeconomics, Macroeconomics, Statistics and Mathematics. Dr Lewis is also a Member of the Department's Academic Advising Committee and Member of the Faculty of Social Sciences Health and Safety Committee and Undergraduate Affairs.



Dr Diedron Lewis

COVID-19: A Sustainable Development Approach to Stabilisation and Recovery

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Objectives

The COVID-19 pandemic has exposed the vulnerability and challenges of countries across the world. Specifically, in developing countries, the challenges of weak institutions and infrastructure, small fiscal spaces and the need for reform in critical sectors inter alia, have been exacerbated by the impact of the pandemic. In the Caribbean region, for example, the pandemic has magnified existing economic, social and environmental challenges. This research, therefore, explores the impacts of the pandemic on Food Security and the Environment, Regional Growth, Health, Poverty and Social Protection Systems among CARICOM countries.

Methodology

Using the Sustainomics framework, this research (1) highlights the economic, social and environmental impacts of the pandemic, and (2) identifies linkages among these factors to form strategies for stabilisation and sustainable development. Secondary sources of data are used to assess the impacts of the pandemic. Some of the key indicators include GDP growth, unemployment rate, balance of payments, food import bill, number of persons accessing social grants and carbon dioxide emissions.

Results

Overall, the COVID-19 pandemic has underscored the need for greater economic, social and environmental resilience through continuous adaptation and reimagination of regional sustainable development.

Conclusions

The response needed as it relates to stabilisation and recovery requires a cohesive approach from all disciplines with the recognition that challenges can be addressed simultaneously without necessarily competing.

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