


Mental Health During the COVID-19 Pandemic in Trinidad: An Analysis of Depression, Anxiety, and Stress Among Essential Workers


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Abstract

Research shows that some essential workers, such as healthcare workers, social workers, and first responders (including police officers, paramedics, and firefighters), are at greater risk for developing both short- and long-term mental health problems (Berger et al., 2012; Canady, 2022; Grey et al., 2020; Haugen et al., 2012; Mohamed et al., 2022; Petrie et al., 2018). The most prevalent of these include anxiety, depression, and stress, as well as other social and cognitive problems—with stress causing harmful effects on mental health, and potentially resulting in anxiety and depression, which may then disrupt an individual's social relationships, family life, and work. Although, healthcare workers were among those who were most impacted by the pandemic, when other pandemic-related stresses and mental health issues were examined outside of the healthcare sector, there is a lack of data on the psychological challenges experienced by *all* essential workers (Jainbo et al., 2020). In Trinidad, for example, available data is unknown for research studies conducted on essential workers *except* healthcare workers. It is vital, therefore, to mitigate trends in poor mental health and increase stress support and mental well-being among all essential workers. The purpose of this study is to address the gap in COVID-related stress and mental health information for all workers in the Trinidad workforce.

Keywords: COVID-19, stress, anxiety, depression, essential workers, Trinidad, mental health

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Introduction

Very little is known about COVID-19 and its impact on the mental health of non-healthcare essential workers in Trinidad. Around the world, this occupation sector has been largely overlooked, except for the area of

Thank you to all the essential workers who participated in the study.

health care. Nayak et al. (2021) looked at the relationship between COVID-19 and mental health in Trinidad and Tobago and found that studies primarily focused on healthcare workers. They found over 100 research studies that were conducted between 2020 and 2024. During that same time period, a paucity of research studies were found for non-healthcare sectors, other than the following professions: bankers, social workers, police officers, fire rescue, and first responders.

Purpose of the Study

The aim of this study was to gain an understanding of the mental health challenges, which were experienced by essential workers in Trinidad. Researchers investigated the relationship between COVID-19 and stress, depression, and anxiety. We hypothesized that (a) COVID-19 had a significant effect on stress; (b) COVID-19 had a significant effect on anxiety; and (c) COVID-19 had a significant effect on depression, while controlling for several demographic variables, such as: gender, marital status, age, race, number of children, education, and occupation; sexual orientation, religion, country of residence, and living status; working directly with COVID individuals/patients; seeing a therapist for SAD caused by COVID-19; COVID-19 exposure; caregiver for COVID-19 individual; and medical condition(s). These relationships were tested using ANOVAs.

Literature Review

According to the World Health Organization (WHO, n.d.-a), the corona virus disease of 2019 (COVID-19) is a very infectious virus, which is caused by the severe acute respiratory syndrome coronavirus 2 (known as SARS-CoV-2). The disease was first found in Wuhan, China in December of 2019 and quickly spread throughout each continent except Antarctica, which remained COVID-19 free until 2021. On January 30, 2020, the WHO (n.d.-b) proclaimed COVID-19 a public health emergency of international concern (PHEIC) after it reported 1,768 COVID-19 cases and 38 deaths worldwide the previous day. In March of 2020 (just 2 months later), the WHO officially characterized the rapidly spreading disease as a global pandemic (WHO, n.d.-b). Similarly, reports from the Centers for Disease Control and Prevention (CDC) showed that as a result of its high infection and mortality rates, this deadly virus (that was believed to spread primarily from person to person) can cause respiratory disease and other lingering maladies, such as a persistent loss of smell, fatigue, racing heartbeat, achy joints, foggy thinking, and damage to the brain, lungs, kidneys, and heart (CDC, 2019). By March 31, 2020, COVID-19 claimed 3,796 lives, there were 5,946 confirmed cases worldwide, and the Government of the Republic of Trinidad and Tobago Ministry of Health (n.d.) reported Trinidad's first case of COVID-19 on March 12, 2020, which was deemed an imported case, transmitted by a man who traveled to Trinidad from Switzerland.

During the pandemic, adults frequently experienced symptoms of stress, anxiety, and depression. A WHO report highlighted that the livelihoods, normal activities, routines, and exercise were substantially impacted, resulting in an increase in loneliness, tension, suicidal behavior (or self-harm), insomnia, harmful alcohol and drug use, and depression (WHO, n.d.-c). According to Aqeel et al. (2021), these symptoms could cause serious negative effects on health, mental health, and psychosocial functioning. Multiple studies showed a notable increase in anxiety and depression following the COVID-19 outbreak (Brooks et al., 2020; Pakpour & Griffiths, 2020; Reinberg, 2021; Reis, 2020). COVID-19 is also linked to many other psychological conditions, including post-traumatic stress disorder (Galea et al., 2020).

Throughout COVID-19, mental health research focused primarily on frontline medical personnel, nurses, or healthcare workers (de Jonge et al., 2020; Hosseinzadeh-Shanjani et al., 2020; Master et al., 2020; Xing et al., 2020). Throughout the pandemic, numerous studies also investigated the rate of mental health issues among different groups, including teenagers (18- and 19-year-olds), senior citizens (65 years of age and older),

and university students (Aqeel, 2021; Buenaventura et al., 2020; Kang et al., 2021; Pieh et al., 2020; Wang et al., 2020).

Jainbo et al. (2020) conducted a study on Chinese healthcare workers in China. They discovered that healthcare workers, women, and other frontline workers reported symptoms related to extreme levels of mental health during COVID-19. In Italy, a comparable study posited that healthcare workers who were mandated to work during the pandemic and exposed to high levels of traumatic occurrences experienced adverse mental health outcomes. Three salient disorders noted in these studies were anxiety, depression, and stress.

Workers in the banking sector in Bangladesh were the subject of a study carried out by Sabina et al. (2022) who discovered that the COVID-19 pandemic had substantial impact on mental health impairment in these workers. They reported experiencing increased rates of stress, depression, and anxiety. Similarly, high amounts of mental health issues were discovered among essential workers who are first responders, including paramedics, police officers, and firefighters (Gray et al., 2020). Research comparing mental health distress among first responders generated mixed findings.

At the start of the pandemic, like many other countries, Trinidad identified the groups of workers and services deemed “essential.” Although the list of essential workers varied by country, according to the International Labour Organization (n.d.), workers deemed “essential” were those whose services were necessary, and these workers were required to report for duty at various points during the restrictions. Trinidad essential workers, like those around the world, were required to report to work when the outbreak of COVID-19 began.

“Essential workers” in Trinidad were classified as those who *had* to show up for work during the different stages of the implemented COVID-19 restrictions, as their jobs were considered essential. Essential workers were those referenced and classified by the Public Health Ordinance (Office of the Prime Minister—Communications, 2020), which was issued by the Trinidad and Tobago Government Ministry of Health (n.d.). The list of essential workers, in Trinidad during COVID-19, is illustrated in Table 1.

Table 1. *Essential Worker Occupations in Trinidad*

Category	Examples of Essential Workers in Trinidad
Caregivers	Caregivers to the elderly and those who require care for a medical reason
Centers and homes	Children’s homes, rehabilitation centers, detention centers, geriatric homes
Cleaning services	Cleaners, janitors, sanitation workers
Energy services	Electricity, petroleum, natural gas
Financial and insurance	Banking, credit unions
Food and drink industry	Food processing, livestock, poultry, seafood, fishermen, agriculture
Hardware store	
Health care	
Lodging	Hotels, guest houses, or eco-lodges
Law and legal services	
Newspapers and media	
houses workers	
Nursing home	

Pharmacy	
Postal worker	
Protective services	Police Service, Defense Force, Prison Service, Fire Service, Immigration, Special Reserve Police, Estate Police, Municipal Police
Retail Services	Discount stores, markets, supermarkets, fruit stall or shops, vegetable stalls or shops, bakeries, pharmacies, and “parlours” for the provision of food, medicine, or necessities of life
Security	
Social worker	
Transport/Ambulance	
Water	
Wholesale store worker	Food, medicine, or other necessities of life

Adapted from: Office of the Prime Minister—Communications. (2020, April 26). *The Public Health Ordinance, Ch. 12 No. 4*. Government of the Republic of Trinidad and Tobago. <https://www.covid19.gov.tt/the-public-health-ordinance-ch-12-no-4/>

Methods

Participants and Procedure

IRB approvals were received to conduct this research study. Essential workers were recruited using the snowball sampling strategy via social media and word-of-mouth. Facebook group moderators of open- and closed-access groups, which were frequented by essential workers in Trinidad, were contacted to request permission to post a research announcement and flyer. Essential workers were also asked to refer their essential-worker friends, family, and colleagues. No incentives were given to study participants.

Measures

Each participant was invited to complete a survey via Qualtrics, the online host used to gather data. All the instruments used were input into Qualtrics, including a quantitative, cross-sectional approach that was undertaken to explore depression, stress, and anxiety among essential workers in Trinidad using the Depression, Anxiety, and Stress Scale (DASS-42). The DASS-42 is a widely used instrument used to measure anxiety, stress, and depression. Other previously listed demographic variables were also assessed. SPSS was used for data analysis.

Data Preparation

The survey was completed by 397 participants. Survey items were sorted in ascending order to facilitate identifying participants with missing data. There were 163 participants who did not answer any of the DASS questions; their data were therefore deleted from the dataset. An additional 31 answered less than 80% of the DASS survey questions; their data were also deleted. This left a total of 203 participants. DASS items were recorded in the following manner: 1 = 0, 2 = 1, 3 = 2, 4 = 3.

Demographics

A total of 203 valid responses were collected without any missing values. Eleven percent ($n = 23$) of the sample were 18–25 years of age, and 46.3% ($n = 94$) were 26–35, which represented 57.6% of the sample. The remaining 42.4% ($n = 86$) were 36 years of age or older. More than 50% of the sample were female (55.2%, n

= 112), followed by male 44.3% ($n = 90$), and other 0.5% ($n = 1$). Slightly over half of the sample (52.7%, $n = 107$) were single/never married, whereas 23.2% ($n = 47$) were married, and 8.4% ($n = 17$) were divorced or separated.

In terms of race, nearly two-thirds (67.0%, $n = 136$) were Afro-Trinidadian, which was the largest racial category among the sample, whereas 22.2% ($n = 45$) were Dougl (Mixed) and 9% ($n = 19$) were Indo-Trinidadian. The majority of essential workers (59.1%, $n = 120$) had some college education or more. Two percent ($n = 4$) of the essential workers disclosed primary school, 27.1% ($n = 55$) reported secondary school, and 10.3% ($n = 21$) selected technical school. Sexual orientation varied with 84.2% ($n = 171$) of participants selecting heterosexual, whereas 3.4% ($n = 7$) chose bisexual and 2.0% ($n = 4$) selected gay/lesbian. Approximately 4% ($n = 8$) selected “other.”

Pertaining to religious affiliation, the largest group of essential workers were Catholic (30.0%, $n = 61$) followed by Christian 25.6% ($n = 52$) and Pentecostal 13.3% ($n = 27$). Less frequent religious affiliations included Jehovah Witness (1.0%, $n = 2$), Muslim (2.5%, $n = 5$), and Seventh Day Adventist (3.0%, $n = 6$). Participants lived in four regions of Trinidad: West (46.8%, $n = 95$), East (31.0%, $n = 63$), Central (10.3%, $n = 21$), and South (9.4 %, $n = 19$). Five participants (2.5%, $n = 5$) did not answer the question.

The most frequent fields of employment included protective services (21.7%, $n = 44$), financial and insurance (19.2%, $n = 39$), health care (18.2%, $n = 37$), social worker (13.3%, $n = 27$), food and drink industry (3.9%, $n = 8$), security (3.9%, $n = 8$), transport/ambulance (3.4%, $n = 7$), law and legal services (3.0%, $n = 6$), and retail services (3.0%, $n = 6$). This represented 90.1% of the reported occupations. Less frequent occupations included postal worker (0.5%, $n = 1$), hotels (0.5%, $n = 1$), and energy services (0.5%, $n = 1$). Approximately 93% ($n = 188$) of essential workers were full-time workers, whereas 7% ($n = 14$) were working part time and one participant did not indicate their employment status.

Most participants, 79% ($n = 161$) did not work directly with COVID-19 individuals/patients, while 21% ($n = 42$) reported directly working with COVID-19 individuals/patients. Results showed that 6% ($n = 12$), reported seeing a therapist or mental health practitioner to get help with stress, depression, and anxiety caused by the current COVID-19 pandemic, while the remaining 94% ($n = 191$) did not (see Table 2).

Table 2: Responses to Selected Items

Item	Yes		No	
	Count	Row N %	Count	Row N %
Do you work directly with COVID-19 individuals/patients?	42	20.7%	161	79.3%
Have you started seeing a therapist or mental health practitioner for help with stress, anxiety, and depression caused by the current COVID-19 pandemic?	12	5.9%	191	94.1%
Have you tested positive for COVID-19?	82	40.6%	120	59.4%
Have you been directly exposed to COVID-19?	142	70.3%	60	29.7%
Have you been the caregiver for someone (outside of your work setting) who tested positive for COVID-19?	59	29.1%	144	70.9%
Do you live alone?	34	16.8%	168	83.2%

Results

DASS Symptom Severity

Analysis of the Depression, Anxiety, and Stress Scale (DASS-42) showed that 58.6% ($n = 119$) of essential workers in Trinidad were “normal” relative to *depression*; 8.4% ($n = 17$) of workers had “mild” depression; 10.8% ($n = 22$) had a “moderate degree” of depression; and 22.2% ($n = 45$) had “severe” or “extremely severe” depression.

Relative to *anxiety*, approximately 60% ($n = 121$) of essential workers in Trinidad were considered “normal;” 5.9% ($n = 12$) of workers had “mild” anxiety; 12.3% ($n = 25$) had a “moderate” degree of anxiety; and 22.2% ($n = 45$) had “severe” or “extremely severe” anxiety.

Regarding *stress*, the majority of the study sample (49%, $n = 99$) were “normal;” 7.4% ($n = 15$) reported “mild” stress; 19.2% ($n = 39$) had a “moderate” degree of stress; and 24.6% ($n = 50$) reported “severe” or “extremely severe” stress.

The severity of anxiety, stress, and depression symptoms among essential workers in Trinidad are summarized in Table 3.

Table 3. *Depression, Anxiety, and Stress Symptom Severity*

Variable	Normal n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	Extremely Severe n (%)
Depression Severity	119 (58.6)	17 (8.4)	22 (10.8)	18 (8.9)	27 (13.3)
Anxiety Severity	121 (59.6)	12 (5.9)	25 (12.3)	14 (6.9)	31 (15.3)
Stress Severity	99 (48.8)	15 (7.4)	39 (19.2)	24 (11.8)	26 (12.8)

Depression Severity

There was a positive correlation between the area of the country where essential workers resided in Trinidad and depression ($\beta = 0.22$, $t = 3.25$, $p = .001$), controlling for the other demographic variables. Based on the variable coding, higher levels of depression were linked to essential workers who lived in the west than those who lived in other parts of the country. There was also a correlation between the area of the country in which the essential workers resided and depression ($r_p = .23$). Furthermore, analysis showed strong evidence of a relationship between having anxiety, depression, and stress before COVID and currently having depression ($\beta = 0.19$, $t = 2.80$, $p = .006$); $r_p = .20$.

Anxiety Severity

There was a positive correlation found between anxiety and testing positive for COVID-19 ($\beta = 0.27$, $t = 3.81$, $p < .001$) when controlling for demographic variables. The present study also found strong evidence of an association between testing positive for COVID and anxiety ($r_p = .27$) when controlling for other demographic variables. Likewise, anxiety was positively correlated with pre-COVID-19 stress, anxiety, and depression ($\beta = 0.31$, $t = 4.46$, $p < .001$; $r_p = .31$). An association was found between testing positive for COVID-19 and depression ($\beta = 0.26$, $t = 3.70$, $p < .001$) when controlling for demographic variables.

Stress Severity

Analyses of variances (ANOVAs) among participants revealed a significant positive relationship between the area of Trinidad in which the essential workers resided and their stress level ($\beta = 0.20$, $t = 2.98$, $p = .003$), while controlling for other demographic variables. Based on the variable coding, essential workers living in the west were associated with higher levels of stress than essential workers who lived in other parts of

Trinidad (central, east, and south). The partial correlation between the area of Trinidad, where essential workers resided, and stress was $r_p = .21$. Pre-COVID-19 stress, anxiety, and depression were significantly associated with currently having stress ($\beta = 0.19, t = 2.79, p = .006; r_p = .20$). When we explored the relationship between being directly exposed to COVID-19 and stress, results showed a positive relationship between being directly exposed to COVID-19 and stress ($\beta = 0.18, t = 2.18, p = .030; r_p = .16$).

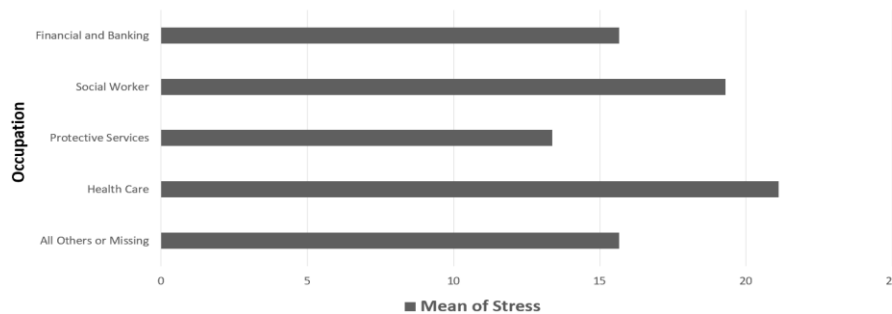
Occupational Symptoms and Severity

Additional analyses were conducted on the data—specifically three one-way ANOVAs—which were used to determine if significant differences existed among occupations relative to stress, anxiety, and depression. The independent variable for each ANOVA was “occupation,” which was grouped into five of the largest categories: “protective services,” “financial and insurance,” “health care,” “social worker,” and “all others or missing.”

Stress Level by Occupation

The first ANOVA sought to explore the differences in occupations relative to stress, which was the dependent variable. Cases were weighted for equal representation so differences in group sizes would not be a factor in significance or the lack of significance (Johnson, 2008). Pairwise comparisons revealed that essential workers in the healthcare sector had significantly higher stress than essential workers in the financial and insurance field (mean difference = 5.60, $p = .018$), protective services (mean difference = 7.75, $p = .001$), and “all other occupations” combined (mean difference = 5.46, $p = .021$). Social workers also had significantly higher stress than essential workers in the protective services sector (mean difference = 5.94, $p = .013$). Disparities are presented in Figure 1.

Figure 1: *Stress Level by Occupation*



Anxiety Level by Occupation

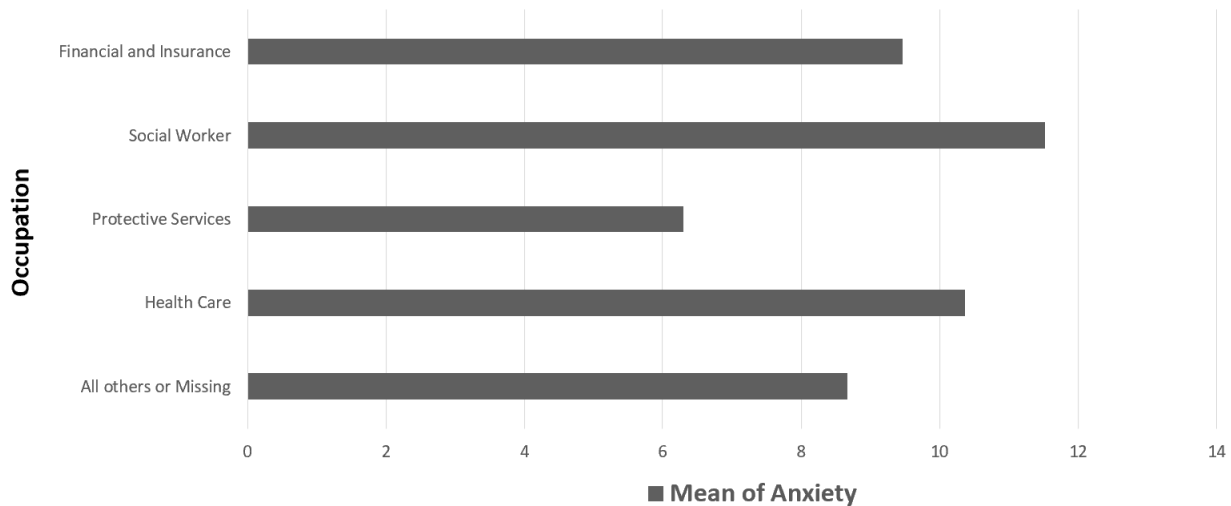
The second ANOVA sought to explore the differences in occupations relative to anxiety, which was the dependent variable. Cases were weighted for equal representation so differences in group sizes would not be a factor in significance or the lack of significance (Johnson, 2008). The data in Table 4 provide the ANOVA summary by occupation for anxiety level.

Table 4. *ANOVA Summary Table for Anxiety Level by Occupation*

	Sum of Squares	<i>Df</i>	Mean Square	<i>F</i>
Between Groups	864.56	4	216.14	2.22
Within Groups	26644.66	274	97.24	
Total	27509.22	278		

The results of the second ANOVA, $F(4, 274) = 2.22, p = .067$, did not show statistical significance. To identify significant pairwise differences, least significant differences (LSD) post hoc tests were performed. Pairwise comparisons revealed that essential workers in the health care sector had significantly higher anxiety than essential workers in the protective services sector (mean difference = 4.06, $p = .030$). Social workers also had significantly higher anxiety than essential workers in the protective services and other sectors (mean difference = 5.22, $p = .005$). See Figure 2.

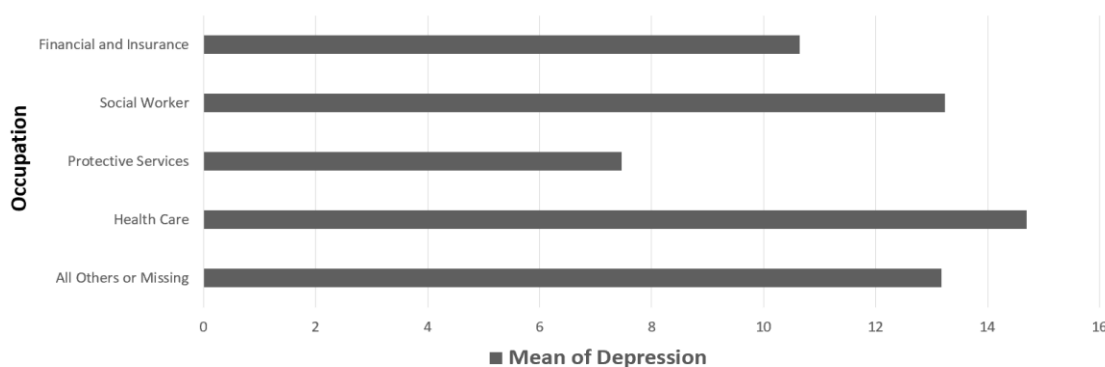
Figure 2: Anxiety Level by Occupation



Depression Level by Occupation

The third ANOVA sought to explore the differences in occupations relative to depression, which was the dependent variable. Cases were weighted for equal representation so differences in group sizes would not be a factor in significance or the lack of significance (Johnson, 2008). The ANOVA for the analysis did not show a statistical significance, $F(4, 274) = 3.35, p = .011$. To identify significant pairwise differences, least significant differences (LSD) post hoc tests were performed. Pairwise comparisons revealed that essential workers in the healthcare sector had significantly higher depression than essential workers in the protective services field (mean difference = 7.24, $p = .001$). Social workers had significantly higher depression than essential workers in the protective services sector (mean difference = 5.79, $p = .009$). Essential workers in “all other occupations” also had significantly higher depression than essential workers in the protective services sector (mean difference = 5.71, $p = .010$). Disparities are presented in Figure 3.

Figure 3. Depression Level by Occupation



Discussion

The mental health of essential workers around the world has been significantly impacted by COVID-19, although a large extent of the research conducted focused on healthcare workers. To the best of our knowledge, this is the first study conducted on the mental health of essential workers during COVID-19 in this part of the region, apart from those conducted by Nyack et al. (2021) on healthcare workers in Trinidad, and King and Devonish (2021) on residents in Barbados. Research on previous epidemics, such as Middle East respiratory syndrome (MERS), severe acute respiratory syndrome (SARS), and Ebola, demonstrated that workers experience emotional distress in addition to that of the general public. Many of these workers experienced signs of exhaustion, burnout, depression, post-traumatic stress disorder (PTSD), stress, and anxiety pre- and post-COVID-19 (Rajkumar, 2020).

Stress

Findings in the current study confirm a strong correlation between the region of the country where the essential workers lived and stress when controlling for demographic factors. Compared to essential workers who resided in other regions of the nation, essential workers who lived in the west were linked to higher levels of stress. Living in cities like Port-of-Spain (located in the west) can offer inner-city residents many opportunities, including improved access to jobs, education, healthcare, and nutrition, as well as increased wealth and healthcare, but it can also present challenges like greater disparities and living in more stressful and demanding work environments (Peen et al., 2020); overpopulated and polluted environments; high rates of crime and violence; decreased social supports; and, in some cases, mental health disorders that are twice the rate of rural areas (D'Acci, 2020). Peen et al. (2010), conducted a meta-analysis showing that people who live in cities experience much higher rates of anxiety (21%) and mood disorders (39%). Bloom et al. (2011), posited that mental health disorders are the main factors contributing to years of disability-adjusted life.

Our study revealed that there was an association between having anxiety, stress, and depression before COVID-19 and currently having stress. Even though this was not a longitudinal study, the rates of depression, stress, and anxiety before COVID-19, as well as the high rates of stress among survivors, may suggest that the COVID-19 pandemic could have intensified stress levels among workers who were directly affected. These findings are similar to studies by Robinson and Daly (2020) and Robinson et al. (2021), who reported in their systematic review and metanalysis a significant overall change in the mental health symptoms between pre- and post-pandemic.

The current study's most notable finding was that stress and direct COVID-19 exposure were significantly correlated. Researchers have argued that direct exposure to COVID-19 puts physician trainees at risk for stress (Kannampallil et al., 2020). In their study, Kannampallil and others found that trainees who were exposed to COVID-19 patients showed higher levels of stress than their counterparts who were not at the forefront and who reported no exposure to COVID-19 patients. As COVID-19 keeps on spreading across the world, this puts increased pressure on workers who are directly exposed and are at greater risk of contracting the highly contagious and lethal virus. Additionally, work overload and unpredictable schedules could cause increased levels of stress. Some essential workers were not only faced with the risk of exposure but are also concerned about infecting their loved ones, self-isolation measures, lack of resources, together with economic issues. Many were also faced with personal issues, such as childcare, work-life balance and health problems.

For social workers, working from home caused isolation and the lack of readily available help from colleagues and supervisors (Seng et al., 2021). Social workers who were working in health care reported other COVID-19 work-related issues that caused stress, such as changing or increased roles, communication problems, and fear (Nicholas et al., 2023). These challenges are more likely to result in burnout and chronic stress. Park et al.

(2022) conducted a study on social workers, which showed that social workers who tested positive for COVID-19 reported high levels of stress.

Whatever the findings for the high levels of stress among social workers, our findings are a cause for concern. For example, pairwise comparisons revealed that essential workers in the healthcare sector had significantly higher stress than essential workers in the financial and insurance field protective services and “all other occupations” combined. And findings of studies conducted in Italy during COVID-19 discovered that anesthesiologists experienced a higher incidence of insomnia, anxiety, stress, and depression (Magnavita et al., 2020).

In addition to other stress inducing factors, watching patients struggle for their lives, keeping patient relatives satisfied, and dealing with angry and sometimes violent relatives of patients—all while trying to avoid making mistakes in a time of crisis—could lead to elevated levels of stress. Researchers (Beşer & Cevik, 2018; Maswadi et al., 2019) posited that this stress could result in healthcare workers decreasing the level of empathy they have for their patients, diminishing their impulse control, and impacting the quality of patient care provided to patients.

We did a pairwise comparison. This comparison showed that the stress levels of social workers were considerably higher than those of essential workers in the protective services. Truter et al. (2017) found that, as a profession, social workers are particularly vulnerable to stress and burnout in their line of work. In contrast, present findings showed lower levels of stress among essential workers in the protective service.

While there is a paucity of research among protective service workers, COVID-19, and mental health, one study on police officers ($n = 2863$) in England and Wales, conducted by Tehrani (2022), showed that the mental effect of COVID-19 on police officers revealed that 2% reported being “affected severely,” 58% reported being “affected somewhat,” 14% reported being “affected greatly,” and 26% said they were “unaffected.” Similarly, Khadse et al. (2020), indicated that in India police officers were at high risk of experiencing job stress and burnout. Contrarily, Pink et al. (2021) observed that fire and rescue workers expressed lower levels of distress than the police group whose levels were already low in their study. Our findings expand on the association between a person’s stress level and how it is related to their direct exposure to COVID-19.

Anxiety

In this study, we identified an association between testing positive for COVID-19 and anxiety controlling for demographic variables. The results showed a positive relationship between having stress, anxiety, and depression before COVID-19 and currently having anxiety. Pairwise comparisons revealed that essential workers in the healthcare sector had significantly higher anxiety than essential workers in the protective services sector. Social workers also had significantly higher anxiety than essential workers in the protective services sector.

Few studies have examined anxiety pre- and post-testing for COVID-19, and few that explored social workers. Seng et al. (2021) found that social workers in Singapore reported high levels of anxiety during the COVID-19 pandemic, especially those in the 21- to 29-year range and those with 3 years or less years of practice.

Varma et al. (2021) found that older adults showed better resilience when coping with the pandemic in their global cross-sectional survey on stress, anxiety, and depression during COVID-19. Older adults thus reported lower levels of anxiety when compared to other age groups. In their study of 73 surgical residents, Collins et al. (2021) posited that residents who reported higher rates of anxiety were those concerned about infecting loved ones. The present study expands on this association between anxiety and COVID-19 among essential workers.

Valdes et al. (2022) conducted a study on undergraduate students in Chile that is in line with the findings of this study. In comparison, these results are contrary to a recent study conducted with social workers ($n = 303$) in Hong Kong, where Ho et al. (2022) found that 14.9% and 15.8% of their study participants reported symptoms of depression and anxiety. In another study conducted with hospital social workers ($n = 557$) in Vietnam (Nam et al., 2022), it was found that more than 50% of social workers reported “normal” and “mild” anxiety, while less than 20% reported “moderate” and “severe” levels of anxiety respectively. This study's findings are consistent with those found in previous research.

Depression

The results of this study showed a correlation between testing positive for COVID-19 and depression. Having stress, anxiety, and depression before COVID-19 and currently having depression are significantly related. Likewise, there was a significant correlation between depression and the area of the country in which the essential workers resided, controlling for the other demographic variables. Essential workers living in the west were correlated significantly with higher levels of depression than essential workers who lived in other parts of the country.

Pairwise comparisons revealed that essential workers in the healthcare sector had significantly higher depression than essential workers in the protective services field. The relationship was similar among social workers who had significantly higher depression than essential workers in the protective services sector. Essential workers in “all other occupations” also had significantly higher depression than essential workers in the protective services sector.

Varma et al. (2021) postulated that rates of depression among the general population were high with elevated rates among healthcare workers. Park et al. (2022) reported that testing positive for COVID-19 and age were associated with depression. And, although social workers and other essential workers are often resilient in their line of work, they too often face mental health challenges that could result in poor mental health in the areas of stress, anxiety, and depression.

Findings in this study concur with the results of one cross-sectional study conducted in Trinidad (Nyack et al., 2021) that observed high rates of depression, anxiety, and stress among healthcare workers. Additionally, high rates of depression were found to be linked to individuals who had COVID-19 and current depression (Perlis, et al., 2021). It is worthy to note that even though the general literature shows a higher incidence of stress, depression, and anxiety among younger individuals (Gray et al., 2020; Pierce et al., 2020, King, et al., 2021), our analysis suggests that there is no association between age and rates of depression, anxiety, or stress.

Limitations

Most notably, we faced significant difficulty in recruiting essential workers from many sectors outside of healthcare, banking, social work, and protective services to complete the survey, which resulted in having limited generalizability to essential-worker samples from other sectors. Also, symptom self-reporting (during the previous 2 weeks) was used in this cross-sectional study, and it is possible that symptoms were overlooked or undervalued in the population's mental health outcomes. Finally, because an online survey was used to complete the questionnaires, the study may have excluded essential workers who did not have access to the internet.

Conclusion

In more challenging conditions, like the COVID-19 pandemic, those on the frontline may face greater challenges, which could result in stress and other psychological problems. In this context, the recognition of people working in more demanding environments, and possibly encountering more difficulties that could result in stress and other mental health issues, is critical. In these settings, understanding the

protective psychological variables is essential for social workers, healthcare workers, and all essential workers to help lower their stress levels and safeguard their mental health.

Although more research is needed to better understand stress, anxiety, and depression in essential-worker sectors that were minimally represented in this research study, the results confirm that the COVID-19 pandemic impacted the mental health of the essential workers in Trinidad; stress, anxiety, and depression are widespread among essential workers; and addressing the mental health of all essential workers ought to be a part of the COVID-19 response in the country and in every workplace. According to Bloom et al. (2011), and from an economic perspective, a mere 20% decrease in the rates of mental health illness in urban areas can result in a savings of approximately \$250 billion annually.

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