

The Impact of COVID-19 Pandemic on Mental Health among Individuals in Dar es Salaam, Tanzania

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Abstract

This study aimed at examining the impact of COVID-19 on mental health in Dar es Salaam, Tanzania. Specifically, this study was guided by the assumption that the COVID-19 pandemic had impacted on individuals' mental health in Tanzania in various ways. The study used a Social Cognitive Theory to illuminate insights generated from the empirical findings from the field. Using a survey questionnaire, the study collected data from a sample of 258 respondents. The findings have shown that COVID-19 affected individuals differently, with fewer symptoms of substance use disorders, depression, and schizophrenia experienced by the respondents interviewed. Overall, there were high symptoms of obsession and bipolar disorder. In conclusion, people's cognitive perception influenced their view of severity of COVID-19 and consequently predisposed their behaviour. Given the changing nature of the virus globally, this study recommends for a country-wide survey to determine the trend and magnitude of mental disorders in the country.

Key Words: *Mental health, COVID-19, Mental disorders*

Introduction

“For all individuals, mental, physical and social health is vital and interwoven strands of life” (World Health Organisation, 2003, p.4).

The way a person responds physically, socially, cognitively and emotionally to an emergency depends on his/her characteristics and experiences, the socio-economic status of that person, the community he/she lives in and the availability of local resources (Maryland Department of Health, 2020). The COVID-19 pandemic outbreak made people and communities feel overwhelming. Fear and anxiety about a disease, particularly a new and rapid spreading virus, can be stressful (Maryland Department of Health, 2020). The situation is even worse in the current era of science and technology that makes people hear, read, see and share repeatedly information (both myths and facts) about the disease in real-time, thus making them vulnerable to developing mental health disorders such as anxiety, depression, substance-abuse and bipolar disorders (Das et al., 2020).

As Dogra (2009) asserted, clarity is essential when defining the term “*mental health*” because sometimes it is easy to confuse it with “*mental health disorders*”, as the two terms are related but different. In the context of this study, mental health refers to the capacity of individuals and groups to interact with one another and the environment to promote subjective wellbeing, attain optimal development and use well intellectual, affective and relational abilities, and achieve individual and collective goals consistent with justice (Dogra, 2009: p. 9). Moreover, people’s mental health is a function of idiosyncratic factors and experiences, their family relationships and circumstances, and their wider community (WHO, 2003). A mental health disorder, on the other hand, is an individual’s emotional or behavioral reflecting a dysfunction in the psychological, biological or mental development process (APA, 2013). When this scenario unfolds, an individual tends to suffer from mental disorder when his or her emotions or behaviours deviate from normal functioning because of mental disturbances.

Additionally, life experiences such as the outbreak of pandemics such as COVID-19 tends to alter the mental health of individuals. In fact, during a crisis such as COVID-19 pandemic, many people experience heightened levels of distress and anxiety, especially due to social isolation (WHO, 2021). Healthcare service providers and other frontline healthcare experts are particularly vulnerable to negative psychosocial outcomes as they strive to balance the duty of caring for the patients with the concerns about their own

wellbeing and that of their family and loved ones (American Medical Association, 2020).

This study offers an understanding of the impact of COVID-19 pandemic on people's mental health. Studies like this are rare in this country; thus, the current study contributes to the understanding of how the pandemic impacted on people's mental health and therefore, it provides a sustainable way of mitigating the impact of future pandemics. The study, therefore, seeks to answer the following key questions: What are the impacts of COVID-19 on people's mental health in Dar es Salaam, Tanzania? How did these impacts resonate with other related studies?

The following section presents mental health in the context of COVID-19. This will be followed by a section that links COVID-19 with the social-cognitive theory; which will be trailed by a methodology section where a description of the methods used, the sample and sample size, and the study area are described. The findings and discussions are presented in one section before the presentation of the conclusion.

Mental Health and COVID-19 Pandemic

The COVID-19 pandemic is one of the critical public health concerns of the 21st century and a challenging health problem to humankind, policy-makers, the international community, and governments. Preventive measures against COVID-19 were proposed by the World Health Organisation (WHO, 2020) and adopted by different countries, Tanzania inclusive (MoHCDGEC, 2020).

The pandemic was first reported in the Wuhan City in China in December 2019 and rapidly spread globally. By 30th April, 2021, there were 149,910,744 confirmed COVID-19 cases reported by the WHO, out of which 3,155,168 have died (WHO, 2021). In Africa the number of confirmed COVID-19 cases is 3,296,256, including 82,431 deaths (*ibid*). The outbreak of COVID-19 in Tanzania was officially confirmed by the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) on 15th March 2020 with the first case reported in Arusha Region (MoHCDGEC, 2020). Tanzania stopped reporting confirmed COVID-19 cases in May 2020 attributing to inflicting fear among the people in the country. By then, Tanzania had 509 confirmed cases, and 21 deaths (MoHCDGEC, 2020). On 29th April 2021, in his statement to the media, the Permanent Secretary for the MoHCDGEC announced that Tanzania has, to a large extent, controlled the pandemic and, consequently, it had abated its negative effects on the citizens (MoHCDGEC, 2021).

Initially, the Government introduced preventive measures such as closure of schools, social distancing, wearing of masks, hand sanitisation, and frequent hand-washing with soap. The rate and level of compliance with these measures varied depending on the understanding of severity and one's mental wellness toward COVID -19. Schools were subsequently opened in June 2020.

Nonetheless, the pandemic has caused a substantial disruptive impact on individuals and the society, hence increased the burden on mental health (Inchausti et al., 2020). For instance, on 30th January, 2020, the WHO officially declared the COVID-19 epidemic a public health emergency of global concern (Nwoke et al., 2020). Then, on 11th March, 2020 WHO declared it to be a pandemic. The situation was expected to get even worse for individuals who had symptoms and signs of mental health illnesses prior to the outbreak of the pandemic. For instance, the WHO (2003) reported that the number of people experiencing mental health problems globally had risen to almost epidemic proportions, with depression emerging as a leading cause particularly among 15-44 years olds (Dogra, 2009).

The WHO defines mental health as a state of wellbeing in which “an individual realises his or her own abilities, can cope with normal stresses of life, can work productively and is able to make a contribution to his or her community” (WHO, 2020). According to the WHO (2020), mental health disorders are increasing worldwide. Available statistics indicate a 13 percent increase in mental health disorders, including substance use disorders (WHO, 2021). Currently, about one billion people live with a mental health disorder. Moreover, an estimated 20 percent of the world's children and adolescents suffer from mental health-related disorders. Furthermore, suicide is the second leading cause of death as at least one person commits suicide every 40 seconds (WHO, 2021). Also, depression affects more than 264 million people worldwide. Meanwhile, 45 million people suffer from bipolar disorder, another 20 million people are affected by schizophrenia, and nearly 50 million people suffer from dementia worldwide (WHO, 2020). Additionally, three million people die every year from alcohol abuse and thus one in five individuals in post-conflict communities has a mental health disorder (WHO, 2020).

WHO celebrates a World Mental Health Day on the 10th October each year. The 2020's World Mental Health Day occurred at the height of the global COVID-19 pandemic (WHO, 2020). The World Federation for Mental Health (WFMH) in March 2021 declared “Mental Health in an Unequal World” as

the theme for the 2021 World Mental Health Day. This theme would not only make the world reflect on mental health but also articulate how billions of people globally had been affected by the COVID-19 pandemic, hence leading to further impact on people's mental health. Against this backdrop, this study aimed to explore the impact of COVID-19 pandemic on mental health in Dar es Salaam, Tanzania, from a social cognitive lens.

In their study titled "progression of mental health services during the COVID-19 outbreak in China", Li et al. (2020) observed that mental illness increased enormously during the time of COVID -19. Cases of depression, suicide and self-harm were more associated with the pandemic. In India, mental disorders increased by 20 percent during the time of COVID – 19 (Loiwal, 2020). Also, generalized anxiety disorder, obsessive compulsive disorders were also reported to increase during the pandemic (Kumar & Nayar, 2021). In other societies COVID–19's impacts on mental health were revealed through overemphasis on consistent hand-washing (Kumar & Nayar, 2021).

Our study is in line with the approaches adopted by several studies, some of which have been mentioned in this work due to their relevance. Nevertheless, our study offers a distinct description of a case study survey which was conducted in Dar es Salaam, Tanzania, a place where at the time of the survey led other regions in terms of COVID–19 infections and death cases.

COVID-19 from the social cognitive theory lens

Social Cognitive Theory focuses on people's ability to learn certain behaviour of others by observations, that is, mimetically (Bandura, 2001). In other words, individuals watch actions performed by others, especially those considered role models (Bandura, 2001). However, the action(s) watched are subjected through a mental process which leads to either adopting or ignoring it. The individual will adopt the action after assessing their capability of performing the same. Often the observer will try to behave in a similar manner as the role model (Ndaluka, 2020) when the observer has realised, he/she can perform the action(s) as observed. This internal mental process is what leads to self-efficacy whereby the individual and the environment mutually reciprocate and influence each other (Bandura, 2001). In this manner, the social cognitive process enables the individual to self-regulate him/herself by negotiating the possibility of the action(s) to be performed in relation to the available opportunity (resources and the environment) (Bandura, 2001).

The COVID-19 pandemic entailed a behavioural change, or adapting to the new normal. It is a condition of adopting to staying at home, avoiding physical

touching as in hand shaking and wearing of masks (Ndaluka et al., 2021). These changes are not only physical, but more so, they involve an individual's cognition, attitude and behaviour (Dobson & Dobson, 2009). An individual's cognition plays a vital and primary role in the development and maintenance of emotional and behavioural responses to life situations such as pandemics (Dobson & Dobson, 2009). Thus, the cognitive processes such as meanings, memories, imaginations, judgments, appraisals, and assumptions attached to specific life situations are primary determinants of one's feelings and actions in response to life events and, hence, can affect the adaptation process (Stajkovic & Sergent, 2019). In the context of this study, people's cognition on the COVID-19 pandemic influenced their mental wellbeing and behavioural responses to it such as hand washing, use of face masks and social distancing (Bandura, 2001). In response to the COVID-19 pandemic, individuals who judged the pandemic as a threat to public health, changed their behaviour in response to it, and thus, stayed at home, wore masks, avoided shaking hands, and washed their hands frequently with soap accomplished through conditioning reproduced through beliefs and attitude of the in-group (van Dijk, 1987).

Moreover, the news on the pandemic (through visual, sound or text) can be perceived differently depending on the meaning and judgment attached to the news (Bandura, 2001). After all, individuals are not just passive receivers and reproducers of information (van Dijk, 1987; Giddens, 1984), but rather engage in active cognitive process pertaining to the information they had heard, watched on television, read from newspaper, on social media and other sources of information (Ndaluka et al., 2021). Information on COVID-19 from different sources is managed and reproduced through a display of positive attitudes and behaviour (van Dijk, 1987) that manifest a cognitive mechanism and strategy of dealing with COVID -19. Unfortunately, the situation is not always positive, as sometimes the cognitive management of different information fails to adhere to the analysis of situations and, thus, leading to symptoms of mental disorders such that they are perceived as frightening and may lead to frightening dreams and difficulty falling asleep (insomnia) due to flashbacks (Bandura, 2001; Jenkins et al., 2018).

Furthermore, response to COVID-19 introduced various mechanisms for fighting the spread of the virus. Some of the mechanisms included quarantine, self-isolation, no touching and handshake, and avoiding crowd gathering (WHO, 2020). Perception and interpretation of these mechanisms is also cognitive, and is based on the social and cultural context (van Dijk, 1987). Continuous isolation conditioning has to do with generative anxiety,

depression and behavioural disorders (Venkatesh & Edirappuli, 2020; Melo & Soares, 2020). These arguments informed the analysis and discussion of the findings of the study. They also provided a framework for navigating and interpreting the findings. The social cognitive theory was useful in this study due to its flexibility in explaining people's behaviour and learning new mechanisms. The adoption of COVID-19 preventive mechanisms depended on people's flexibility of their situation and ability.

Methodology

This study adopted a descriptive quantitative case study research design. Using a standardised social survey questionnaire, the study was designed to collect primary data from five districts of the Dar es Salaam Region namely: Ubungo, Temeke, Ilala, Kinondoni, and Kigamboni. The selection of the study sites focused on high-risk areas and the selection of all districts was to make Dar es Salaam Region as the case study. At the time of designing this study, the statistics showed that Dar es Salaam was the leading region in identifying COVID-19 victims in Tanzania (MoHCDGEC, 2020). The data was collected between June and July 2020.

The study used simple random sampling in selecting study participants at the street level, drawing determined samples administratively from the regional, district, division, wards and eventually street levels. Moreover, we used a lottery system to select the wards and streets from each district to recruit our respondents for the purpose of attaining population representation in the sample selected.

The selection criteria were as follows: level of precision (sampling error), confidence level and degree of variability in the attribute being measured. It was estimated that 50 percent of the population in Dar es Salaam aged 18-60 years old had the ability to respond to the study questions. The true value of the population worked on the assumption that ± 6 percent was the sampling error with 95 percent confidence level, thus, α was set at 5 percent, i.e.

$0.05/2=0.025$ (1.96) in the normal tables. A formula $n_0 = \frac{z^2 pq}{e^2}$ was used to

draw the sample, whereby: n_0 = sample size required, p = proportion that is estimated variance in population as 0.5 for 50-50 or 0.3 for 70-30, q = the proportion of failure that is $1 - p = 30$ percent for $p=0.7$, z^2 = confidence level 1.96 for 95 percent confidence, e^2 = the level of precision that is 0.07^2

and N = total population aged 18-60 years. Thus; $n_0 = \frac{1.96^2(0.7)(0.3)}{0.07^2} = 164.64082 \gg 165$.

Consequently, the researchers settled on 258 respondents after adding an allowance of 93 respondents to adjust for the non-response response rate. Using projections based on Tanzania’s 2012 Population and Housing Census, Dar es Salaam is projected to have a population of 3,029,260 persons aged 18-60 years, with Kinondoni Municipality accounting for 669,427 people, Ilala for 839,596, Temeke for 816,332 people, Kigamboni for 107,288 people and Ubungo Municipality accounting for 596,617 people.

To ensure that each municipal council is represented, the following formula was used to obtain the sample size from each municipality: $S_n = \frac{N}{T^{X^s}}$ whereas; S_n = calculated sample size of a municipal council, N = municipal council population aged 18-60 years old, T^{X^s} = Dar es Salaam total population aged 18-60 years old. Therefore, the actual sample size obtained from each respective municipality is as presented in Figure 2.1.

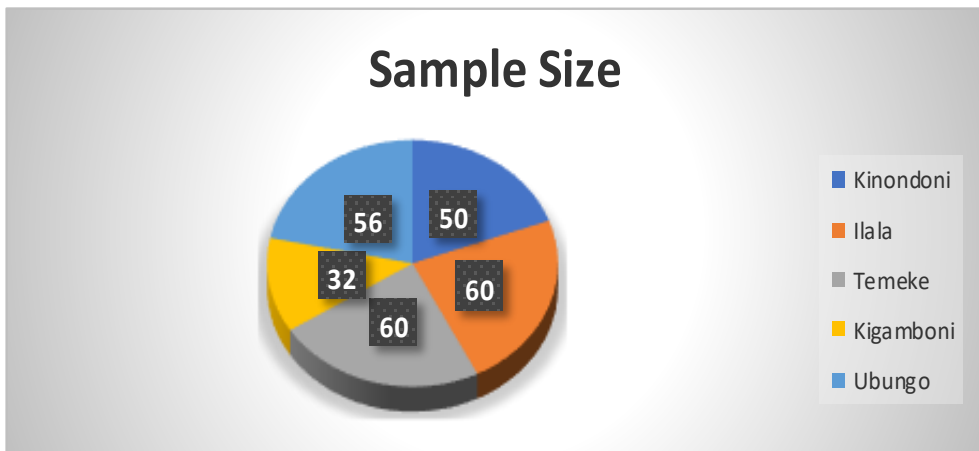


Figure 1: *Distribution of Sample Size per Municipal Council*
Source: Social Survey June-July, 2020

Out of the 258 respondents that participated in the survey, 50.4 percent were females and 49.6 percent males. Nearly a half (47.5%) of the respondents were aged 18 - 30 years whereas 31.9 percent aged 31- 40 years, 13.6 percent aged 41-50, 3.9 percent aged 51 - 60 and 3.1 percent aged 61 and above.

Moreover, less than a half (40.6%) of the respondents had completed secondary school level education, 29.3 percent had completed tertiary education, 27.4 percent had completed primary education, and 2.7 percent did not complete any level of formal education. In other words, most of the respondents had attained secondary school education, thus lowering the number of respondents who had never benefited from formal education. This notable education profile is attributable to the Government’s effort of offering universal education at both primary and secondary levels of education.

Table 1: *Socio-demographic Characteristics of the Respondents*

Socio-demographics	Attributes	Frequency (N=258)	Percentage (%)
Gender	Male	128	49.61
	Female	130	50.39
Age	18 – 30	122	47.29
	31 – 40	82	31.78
	41 – 50	35	13.57
	51 – 60	10	3.88
	61+	8	3.10
	No response	1	0.39
Education Level	None	7	2.71
	Primary education	70	27.13
	Secondary education	104	40.31
	College or higher	75	29.07
	No response	2	0.78

Source: Social Survey June-July, 2020

Results and Discussion

This section presents and discusses the findings in accordance with the key question that guided this study, namely: What are the impacts of COVID-19 pandemic on mental health.

Impacts of COVID-19 pandemic on Mental Health Issues

COVID-19 emerged as a global health crisis with various implications physically, socio-economically, and psychologically. Hence, it has been established globally that the mental health problems are rising exponentially through the COVID-19 era (Goyal, Chauhan, Chhikara, Gupta, & Sing, 2020). This study was guided by the assumption that the COVID-19 pandemic had impacted on individuals' mental health in Tanzania as well. Hence, the researchers provided to participants a list of statements on the impacts of COVID-19 on mental health issues. The respondents indicated the extent to which the statements applied to them in the previous 30 days before the day of data collection. The following sub-sections present the findings:

Experiencing Frightening Dreams and Disturbing Memories in the Time of COVID - 19

This study was enthusiastic about knowing whether the respondents had encountered any disturbing thinking of images or memories and frightening dreams that replay part of the experience of coronavirus and COVID-19 pandemic. The findings indicate that more than a half of the respondents, that is 59.4 percent admitted to having had disturbing feelings or memories about the coronavirus and COVID-19 pandemic; 26.2 percent did not have any disturbing feelings or memories and 14.4 percent rarely had disturbing feelings or memories of coronavirus and COVID-19 pandemic. The findings suggest that the pandemic impacted on people's feelings and memory system and consequently, as suggested by Schredl (2020), this could affect their daily life's activities, including school, family relationships and economic activities. Likewise, Scarpelli et al. (2021) in Italy reported substantial changes in sleep patterns during the COVID-19 pandemic. According to the social cognitive theory, this finding suggests that the respondents were exposed to the environment and watched behaviour/actions that portrayed COVID-19 as something to be feared. Information about morbidity and death rates, pictures of dead people that were aired on televisions, social media videos of people suffering and dying from COVID-19 or buried without the presence of family members were internalised and consequently, exhibited in the form of disturbing feelings.

Moreover, Germain (2013) argues that frightening dreams (nightmares) could result from Post-traumatic Stress Disorder (PTSD). This study suggests that PTSD was prevalent, but unlike other studies, this study used Likert scale to measure the extent of the problem among the people aged 18 to 65 years old during the time of COVID-19 pandemic in Tanzania. Figure 2 provides details of the percentages of the above arguments.

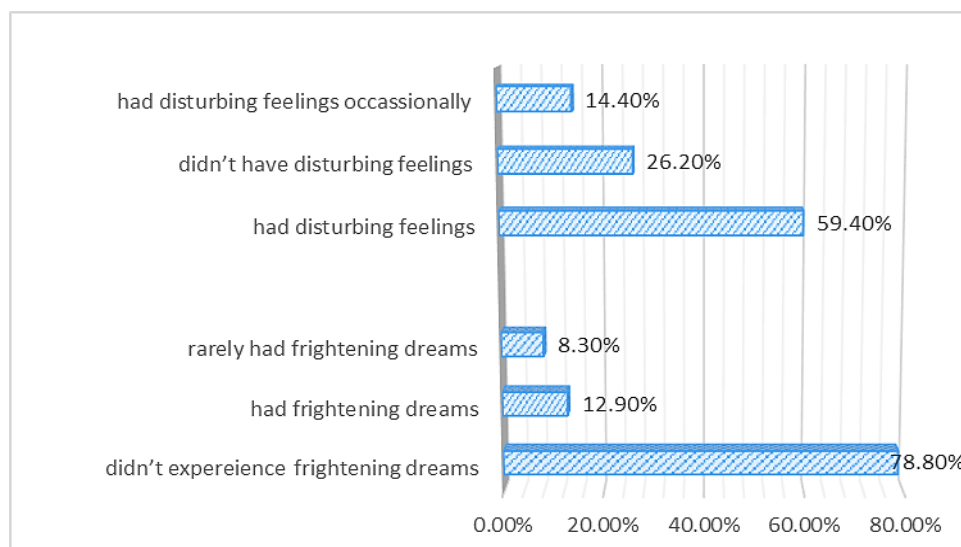


Figure 2: Feeling of frightening dreams and disturbing memories in the time of COVID-19

Source: Social Survey June-July, 2020

Nevertheless, most of the respondents (78.8%), did not experience frightening dreams, 12.9 percent experienced them, and 8.3 percent rarely experienced such frightening dreams (Figure 2). This finding may be attributable to the behaviour and approach of government leaders such as the late John Pombe Magufuli who often normalised the severity of COVID-19 which in doing so reduced fear of COVID-19 among its citizens. We learn from social cognitive theory that individuals watch actions performed by others, especially those considered role model (in this case the former President John Magufuli). For instance, the Government stopped revealing COVID-19 incidences and prevalence which was attributed to normalizing the situation.

Tanzania also did not opt for lockdown, which may account for less fear of the pandemic among Tanzanians generally, thus fewer disturbances in their dream patterns. In this case, we state that Government officials observed the practice of lockdown in other countries but did not think it was the

action/behaviour to be implemented. This is corroborated with the social cognitive assumptions. That is, not all observed actions lead to learning or change in behaviour. The individual will only adopt an observed behaviour if it is perceived to be within his capability (Bandura 2001). In turn this action decreased the incidence of having disturbing dreams among the citizens. Social cognitive theory helps as a source of knowledge in such contexts and it highly enables detailed explanation on how a diverse set of structural, personal and cognitive factors may affect human behaviour and decision-making processes.

Difficulty in Sleeping and the Fear of Death in the Time of COVID-19

The COVID-19 pandemic-related stressors such as fear of infection, financial instability, deficient supplies, and stigmatization, which is known to harm individual's health and well-being in many ways, including being deprived of the resources that individuals need to care for themselves and their families during a pandemic, increased people's risk of having changes in their sleep pattern (Brooks, Webster, & Smith, 2020). Respondents in this study were required to indicate whether the coronavirus and COVID-19 pandemic had impacted on their sleep patterns and their survival chances. As Figure 3 illustrates the study found that more than half (61.6%) of the respondents feared to die, 27.9 percent did not harbour such fear, and 10.1 percent rarely feared to die.

Previous studies (e.g. Becker, 1973; Menzies, 2018) have shown that death anxiety is an underlying and central component for human beings. Nevertheless, the COVID-19 pandemic presents unusual challenges to human existence because of such constant reminders of death that there are ever-present images of death, daily updates on COVID-19 incidences, prevalence and other death cues such as face masks may account for heightened fear of dying among people (Newton-John et al., 2020). Through television and social media people watched the magnitude and trends of death that were caused by COVID-19. This made people reflect on the severity of the pandemic and alive at self-realization that led other people to adopt preventive measures against the pandemic.

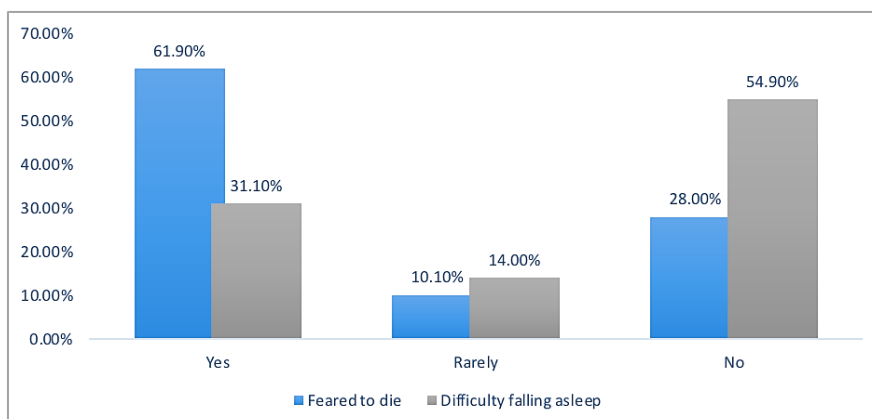


Figure 3: *Experiencing difficulties in sleeping and fear of death in the time of COVID-19*

Source: Social Survey June-July, 2020

Conversely, as Figure 3 illustrates, although about a half of the respondents 54.9 % indicated that they did not experience any difficulty in falling asleep at night during the COVID-19 pandemic, 31.1 percent of the respondents faced difficulties in falling asleep at night, and 14.0 percent rarely experienced such difficulties. These findings contradict those of other studies (Killius et al., 2021; Husky et al., 2020) that reported problems associated with falling asleep or staying awake experienced by people during the COVID-19 pandemic. Being one among the important factors for people's wellbeing and for people to maintain proper daily functioning, it was important for this study to explore sleep patterns among people in Tanzanian context. Moreover, provided that the prevalence of COVID-19 related sleep problems has been reported in various studies to be high, socio-cultural contexts and preventive measures against the pandemic matters in influencing sleep patterns. Hence, differences in preventive measures against the pandemic adopted by various countries globally may account for this finding. For instance, while most of the countries globally opted for lockdowns and daily updates of the COVID-19 incidences and prevalences, Tanzania did the opposite, which could help explain the reducing fear of COVID-19 pandemic among people in the country. Also, because lockdown affects sleep-wake rhythms by strengthening the maladaptive sleep patterns as reported by Bruni, Giallonardo, and Sacco (2021), Tanzania did not opt for lockdown, a situation which helped people in Tanzanian context to continue living their life normally, hence their sleeping habits were less likely to be interrupted.

Substance abuse in the time of the COVID – 19 Pandemic

The current study also sought to determine the extent to which people engaged in substance abuse during the COVID-19 pandemic suffered. In this regard, the study found that most of the respondents (92.2%) did not consume more alcohol than usual, 4.3 percent consumed more alcohol, and 3.5 percent rarely consumed alcohol as a means for overcoming negative feelings towards the COVID-19 pandemic. Implicitly, the findings suggest for correct misconceptions as a majority of Tanzanians did not get involved in heavier alcohol abuse during COVID-19 pandemic. This also suggests that alcohol abuse as a behaviour was watched but not adopted by people during COVID – 19. Correspondingly, these findings concur with those in a study by Graupensperger et al. (2021) which established that substance abuse, particularly alcohol abuse among students, dropped during COVID-19 pandemic.

Likewise, the respondents rated their cigarette smoking pattern during the COVID-19 pandemic. As figure 4 illustrates, most (96.5%) of the respondents did not smoke more cigarettes than usual as a means for overcoming feelings relating to COVID-19 pandemic, 1.5 percent smoked more cigarettes than usual, and 2.0 percent rarely smoked more cigarettes than usual. Based on this finding, one may suggest that stress brought about by the COVID-19 pandemic did not have impacts on people's feelings towards cigarette smoking. On the contrary, a study by Berlin et al. (2020) found that stress and isolation increased the urge to smoke cigarettes and abuse alcohol. Experience from a medical point of view also shows that individuals with substance use disorders, especially those with addiction to tobacco or opioids, were likely to have worse outcomes if they are infected with COVID-19. It is known medically that such addictions can harm lung function and weaken the immune system, causing chronic conditions such as heart disease and lung disease, which eventually increase the risk of critical complications from COVID-19.

Moreover, the respondents rated their drug consumption like tranquilizers, sleeping pills, stimulants and/or pain killers to overcome negative feelings about COVID-19 pandemic. As indicated in Figure 4, 98.0 percent of the respondents did not consume more drugs than usual, 1.6 percent consumed more drugs, and 0.4 percent rarely consumed more drugs than usual. These also suggest that drugs were not sought as a behaviour that can be adopted against COVID–19. The results also suggest that travel restriction, social and physical distancing provided limited exposure to behaviours that led to consuming more drugs.

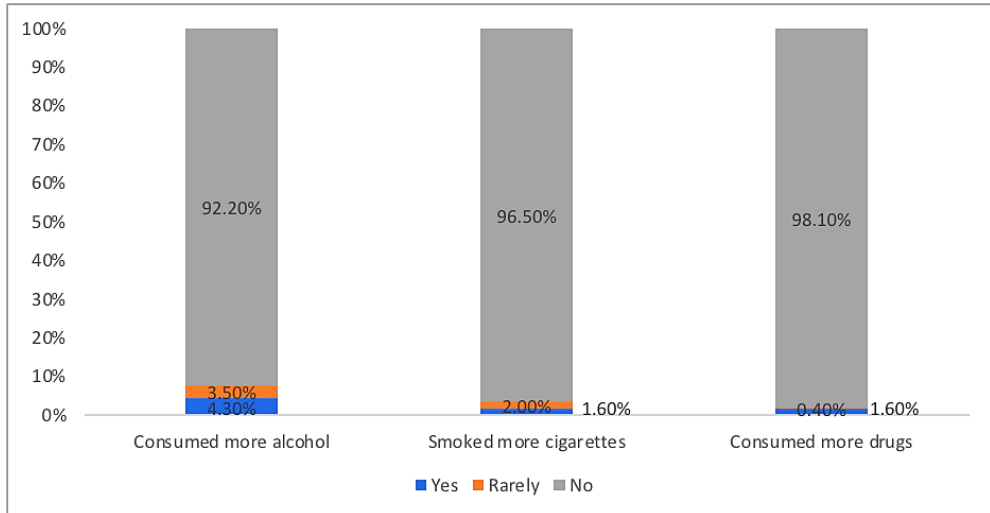


Figure 4: *Alcohol and drug abuse in the time of the COVID-19 pandemic*
Source: Social Survey June-July, 2020

Contrary to the findings of the current study on substance abuse, Clay and Parker (2020) associated an increase in stress to a rise in high chances of substance abuse due to improper functioning of the cortisol hormone response and emotional regulation. In fact, measures such as quarantine and lockdown during the COVID-19 pandemic had high implications for mental health issues and substance use among many people in the world (Schmitz & Glowacz, 2020). These differences in the findings could be attributable to the differences in preventive measures against COVID-19 approaches deployed by various nations. As opposed to many countries globally, Tanzania did not resort to lockdowns, and had selective quarantine approaches. Yet, nationwide prayers organised by the Tanzanian Government had recourse to prayers. In other words, faith and prayers can help overcome fear against COVID-19 by having an effect on the recipients (Ndaluka et al., 2021).

4.1.4 Behavioural responses to COVID – 19 Pandemic among People

Respondents were asked on their behavioural responses towards COVID-19 pandemic. The study found that 62 percent of the respondents found ways of protecting themselves against the pandemic, 23.5 percent did not, and 14.5 percent rarely found the ways as shown in Figure 5.

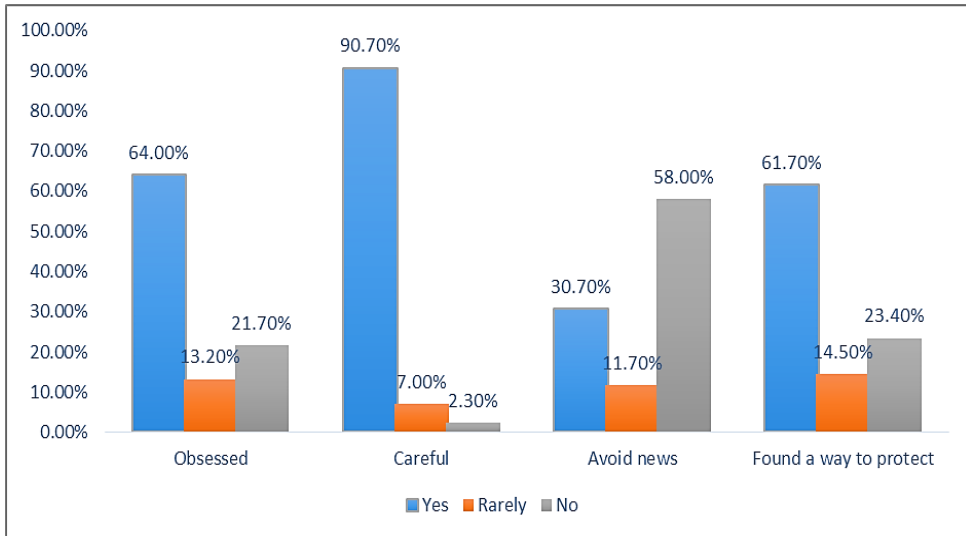


Figure 5: Behavioural responses against the corona virus and COVID-19 pandemic

Source: Social Survey June-July, 2020

The study also determined how the respondents avoided reading and listening to news about corona virus and COVID-19 pandemic. Findings revealed that 57.6% of the respondents did not avoid reading and listening to news on COVID-19 pandemic; 30.7 percent had avoided and 11.7 percent rarely read and listened to such news. COVID -19 as a new pandemic attracted attention of many media (formal and informal). As a result, many people had no choice because information about COVID-19 was in all information channels. Nevertheless, people had a choice of either listening to, or reading or ignoring the news. The fact that a big majority of the respondents read and listened to news about COVID-19 pandemic, their cognitive process on the impact of the news was regarded minimal or none.

Correspondingly, 90.7% the news of the respondents reported adhering to the preventive measures against COVID-19 pandemic that were advocated by the Tanzania Government, 2.3 percent did not adhere to such preventive measures, whereas 7.0 percent rarely adhered to such steps. For instance, 64.7 percent, which is more than a half of the respondents, reported being obsessed with hand-washing practices and/or sanitising their hands as a preventive measure against contamination. Nevertheless, the fear of dying was reciprocated in actions such as obsessed hand – washing practices. Similarly, 22.0 percent of these respondents were not obsessed with such traits, and only 13.3 percent rarely hand-washed with soap and/or hand sanitised their hand.

In this regard, a majority of people in Tanzania adhered to preventive measures against COVID-19 pandemic as advocated by the government. This has the implication that COVID-19 has compelled people to cope with new ways of living. This is based on the fact that before the COVID-19 most of the preventive measures against the pandemic were not habitually practised by a majority of people in Tanzania. These results also indicate that the majority viewed the proposed mechanisms as being within their capability. This finding is in line with what Atchison et al. (2020) and Jang, et al. (2019) contended that most people adhered to preventive measures against the pandemic, and thus, those who did not were probably those most economically-disadvantaged due to financial limitations. In the UK, Atchison et al. (2020) and in Hong Kong, Kwok et al. (2020) similarly reported high levels of self-reported behavioural change such as frequent hand-washing, avoiding crowded areas, avoiding social events and public transportation.

Conclusion and Recommendations

The findings of the study suggest that the COVID-19 pandemic had two sides of the coin. On the one side, the results hint at obsession, bipolar disorder and depression as symptoms of mental health-related issues, which were found to be relatively high. This problem may be attributable to their cognitive perception of information gleaned from the government and other sources on the severity of COVID-19 and the global picture, especially the number of deaths reported in other societies, which consequently influenced their behaviour. This cognitive analysis of the pandemic created fear and anxiety to the most of the people, hence leading to the manifestation of symptoms of mental health, which included dreading death due to COVID-19, experiencing disturbing memories and frequently washing their hands with soap to guard themselves against the deadly coronavirus.

On the other side of the coin, there were fewer symptoms of substance abuse and schizophrenia as replicated in people's attitudes and behaviour towards alcohol, smoking and drug abuse. Many individuals neither avoided reading news and information on COVID-19, nor experienced difficulties in sleeping. Neither did they report experiencing nightmares, which can be attributable to the preventive measures against the pandemic advocated by the Tanzanian Government that seemed to consider the country's particularised socio-economic context. For instance, while many nations adopted lockdowns as the primary preventive measure against the pandemic, Tanzania did not. Thus, forestalling mental illnesses related to isolation and economic deprivation. Experience from various parts of the world has shown that multiple lockdowns, fear of infection and physical distancing have increased

isolation, loneliness, and anxiety among people, leave alone other impacts. Moreover, the Tanzanian Government stopped revealing statistics relating to the incidences and prevalence of the pandemic in 2020, which helped to control the spread of negative messages on the pandemic among the populace. This situation was abetted and justified by the slow incidences and prevalence of the pandemic.

By July 2021, Tanzania reportedly had 1,017 people infected with COVID-19, out of whom 183 recovered and 21 died. Implicitly, the country was experiencing relatively low rates of infection and deaths. The findings of this study have further shown that research applying social cognition theories may contribute to explaining variance in these mental health conditions and inform the detailed account of necessary efficacious interventions geared towards promoting behaviour change for adherence when such pandemics emerge. Nevertheless, it is worth admitting that this case study was limited to the context in which it was conducted. Therefore, the study calls for a country-wide survey to examine the magnitude, trends and impact of COVID-19 on people's mental health to determine the gravity of the problem on a national scale.

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Compliance with Ethical Standards

All procedures performed in this study were in accordance with the ethical standards of the University of Dar es Salaam which in accordance with government circular letter Ref. No. MPEC/R/10/1 dated 4th July 1980, is empowered to issue research ethics clearances to staff members and students of the University on behalf of the government and the Tanzania Commission for Science and Technology (COSTECH). The study was performed in accordance with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Conflict of Interest

The authors declare they have no conflict of interest

Informed Consent

Informed consent was obtained from all individual adult participants in this study.

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