

Impact of the COVID-19 Pandemic on the Psychosocial Well-Being of College Students:

The Case of Africa International University, Karen, Nairobi County, Kenya

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Abstract

This study investigated the impact of the COVID-19 pandemic on the psychosocial well-being of college students studying at the Africa International University, Karen, Nairobi County, Kenya. The objectives of the study were: to establish the prevalence of preventive hygiene measures by students due to the COVID-19 pandemic, to assess whether the COVID-19 pandemic causes depression, to determine the severity of anxiety due to the COVID-19 pandemic and to investigate the prevalence of avoidance behavior due to the COVID-19 pandemic by students of AIU, Karen, Nairobi, Kenya. The study employed a descriptive survey research design in which a sample size of 123 respondents was selected from a target population of 1134 students using the stratified random sampling method. A structured questionnaire including the Becks Depression Inventory-II and Beck's Anxiety Inventory tools was used to collect data from the respondents. The results showed that the COVID-19 pandemic significantly impacted the psychosocial well-being of college students. More than 60% of the students incorporated

behavior changes and adhered to the government directives on preventive hygiene measures. It was also found that the students suffered from depression at $20.10 \pm 0.975SD$. The student also suffered from anxiety at $15.85 \pm 0.491SD$. Avoidance behavior was also prevalent at $p = 0.000$. The study recommends the introduction of psychoeducation programs to educate the students on how to cope with the COVID-19 pandemic and other pandemics that might occur, initiation of accessible and affordable counselling services for students, training on developing resilience, a concerted effort between the colleges and government to educate students on how to cope with pandemics and that the government should put measures to mitigate the spread of fake news from social media and educate people on where to obtain reliable information.

Keywords: COVID-19 pandemic, Depression, Anxiety, Avoidance behavior, Psychosocial well-being, Psychoeducation

Introduction and Problem Statement

COVID-19 is one of the world's most deadly pandemics ever witnessed. About 78 million people have been infected with the disease, and over 1.7 million others have been killed worldwide (WHO, 2020). The COVID-19 pandemic brought about widespread psychological problems that may result in long-term issues such as depression, anxiety and worsening pre-existing psychological disorders (Haider et al., 2020). Mwiti (2020) elucidated that there would be critical post-COVID-19 health challenges and that psychosocial interventions should be implemented together with medical care.

There is a likelihood that the COVID-19 pandemic has adversely affected the mental, social status and overall well-being of college students in Kenya, which needs urgent intervention. A study conducted by Infotrak Research and Consulting showed that 75% of Kenyans were

worried and anxious about the COVID-19 situation in Kenya, and out of these, 50% reported being extremely worried (Infotrak, 2020). The COVID-19 pandemic could lead college students to suffer from avoidance behavior. It was assumed that avoidance responses due to the fear of contracting COVID-19 could lead to psychological problems such as avoidance behavior (Balkhi et al., 2020). College students might have avoided or reduced contact with people, social places, visits to healthcare facilities, places of worship and travelling (Balkhi et al., 2020). Avoidance behavior could be caused by fear and anxiety and lead to loneliness and depression. The results from this study showed that the COVID-19 pandemic affected the psychosocial well-being of college students.

Objectives of the Study

The study's general objective was to investigate the impact of the COVID-19 pandemic on the psychosocial well-being of college students at Africa International University, Karen, Nairobi County, Kenya.

Specific Objectives

- (i) To establish the prevalence of preventive hygiene measures by AIU, Karen, Nairobi, and Kenya students due to the COVID-19 pandemic.
- (ii) To assess whether the COVID-19 pandemic causes depression among the students of AIU, Karen Nairobi County, Kenya.
- (iii) To determine the severity of anxiety due to the COVID-19 pandemic among the students of AIU, Karen.
- (iv) To investigate the prevalence of avoidance behavior by students of AIU, Karen, Nairobi, Kenya, due to the COVID-19 Pandemic.

Theoretical Framework

The Ecological Systems Theory guided this study, postulated by Urie Bronfenbrenner, and the Social Learning Theory developed by Albert Bandura.

The Ecological Systems Theory

Urie Bronfenbrenner developed the Ecological Systems Theory and posited that human development is affected by various environmental systems. The ecological systems theory makes three assumptions: First, a person is a dynamic player and affects his or her environment. Secondly, the environment compels a person to adapt to its conditions and boundaries. Thirdly, the environment is understood to be comprised of different environmental systems of varying sizes. This spectrum ranges from smaller immediate environments in which people interact directly to larger distant environments that indirectly impact growth. The microsystem, the mesosystem, the exosystem, the macrosystem and the chronosystem are such environmental systems (Bronfenbrenner, 1979). The strength and nature of these connections are essential to a person's development. Supportive relations in this context can benefit the person and their overall development. For example, a student can attain academic success in online learning if the family and school are supportive. The family can provide a conducive learning environment and the facilities required, like a laptop and a steady internet, and the school can provide the platform that will facilitate learning.

Changes in the ecological context of development can affect the direction a person's development is likely to take. In this case, the COVID-19 pandemic has, over time since it was discovered, affected a person's beliefs, customs, technologies and social circumstances. It has changed how education is delivered, how technology is used, how people socialize, and even the

beliefs that were held. It has forced people to adapt to a different lifestyle in what is referred to as the 'new normal'.

The Social Cognitive Theory

The Social Cognitive Theory (SCT) was proposed by Albert Bandura and posits that learning occurs within a social environment in an active and reciprocal interaction of the person, environment and behavior. New social behavior can therefore be acquired through own experiences, observing the actions of others and the results of those actions. Conditioning and modeling can lead to behavior modification and cause the elimination of undesirable behaviours and therefore increase desirable responses. Learning is a cognitive process in a social environment and can occur through observation or direct instruction. According to Bandura:

Human functioning involves interrelated control systems in which behavior is determined by external stimulus events, internal processing systems, regulatory codes, and reinforcing response-feedback systems (1969, p. 19).

The Social Cognitive theory has four major concepts. The first concept is differential reinforcement which relates to consequences for behavior. This includes positive or negative reinforcement, punishment, or withdrawal. These arise directly from the external environment. The second is vicarious learning or modelling, which argues that the observation of a model being strengthened for a given behavior can increase the probability of that behavior being replicated by the observer. Also, the observer may avoid similar behavior perceived to lead to punishment. The third is cognitive processes which Bandura viewed as intervening in environmental events and behavior. Behavior is governed by cognitive processes of encoding, arranging and retrieving data. The environment thus provides the person with cognitively processed information, and the outcome of the processing will decide the overt behavior that will

follow. The fourth construct is reciprocal determinism which posits that the person also influences behavior influences and, and the environmental controls a person's behavior through external social stimulus events. The person also has self-efficacy, which is confidence in his/her ability to perform a behavior and manipulate their environment successfully. In this case, a student's behavior will be determined by how they perceive the COVID-19 pandemic because of the vast information they are consuming from the media about the dangers, infections, and deaths that the disease is posing. This might make the student become anxious or suffer from depression. The environment through the social events happening due to the disease, where people are wearing masks, keeping physical and social distance, and unconventional burials will determine the student's behavior where they might avoid people and wear masks to protect themselves from the disease.

Empirical Literature

An empirical review evaluates studies using first-hand field experience or observational data that has been collected and analyzed. The research variables and study goals align with this section of the empirical review.

Depression

Depression is a common and severe illness. It is also known as major depressive disorder. It is a normal response to an abrupt worsening change in living conditions involving uncertainty and separation (Huremovic, 2020). Adverse life events like psychological trauma, loss of a loved one, unemployment, and abrupt disruption of life trends can cause an individual to develop depression.

According to a study carried out by Global Burden of Disease (GBD 2017), depression is a widespread mental illness that affects over 264 million individuals worldwide. In any given

year, depression affects around one in fifteen adults, and one in six individuals will suffer from depression at any point in their lives (APA, 2013). Ecological theorists elucidate that depression and an individual's environment cannot be isolated. The COVID-19 pandemic has disrupted individuals' lives as they knew it. The scare of the disease contagion, social isolation, loss of jobs due to business closures, closure of schools and the introduction of new methods of learning, government directives curtailing movement and enforcing hygiene measures of wearing masks, handwashing, and social distancing affect people's mental well-being leading to depression. People show a sense of helplessness and a lack of motivation when subjected to events beyond their control, leading to depression (Seligman, 1972).

A study by Son et al. (2020) revealed that during the COVID-19 pandemic, 44% of the students declared they were experiencing some depressive thoughts. They attributed these depressive thoughts to loneliness, hopelessness, uncertainty, concerns about academic performance issues and overthinking. In the same study, 8% of the participants reported that the pandemic had led them to have suicidal thoughts, caused mainly by depressive thoughts, academic performance, problems with family due to college closure, and fear of uncertainty and insecurity. Motivo et al. (2020) established that the rates of depression might be seven times higher among the population during the COVID-19 pandemic. These high rates of depressive symptoms could be explained by the measures imposed worldwide during the COVID-19 outbreak.

Anxiety

Anxiety is a common stress reaction. It is an expectation of a potential problem and is related to the actions of fear and avoidance. A study by Salari et al. (2020) concluded that the prevalence of anxiety due to the COVID-19 pandemic among the general population was 31.9%.

A study by Wang and Zhao (2020) found that university students had higher anxiety levels than the general population after the outbreak of COVID-19 and that the disease negatively impacted the students about anxiety. The study also established that the students were worried about the change in their lives due to school closures and online learning rather than face-to-face learning.

A study by Son et al. (2020) posits that college students are particularly vulnerable to mental health issues. 71% of participants in the study were experiencing increased stress and anxiety due to the COVID-19 pandemic. The stressors that led to increased anxiety were fear and worry of own health and their loved ones, difficulty focusing, reduced social interaction, increased concerns about academic performance and disruptions of sleep patterns.

Avoidance Behavior

Avoidance is keeping clear of threatening situations and is a significant characteristic of adaptive fear. According to the American Psychiatric Association (2013), maladaptive avoidance is a crucial feature of numerous mental disorders. In a study by Lau et al. (2010), during the Swine Flu H1N1 pandemic, 77% of the respondents showed some avoidance behavior. Individuals avoided going to hospitals for fear of getting infected by the virus; they avoided crowds and leaving their homes. A study by Nicomedes and Avila (2020) carried out in the Philippines revealed that there was a high score on avoidance behavior manifested in overwhelming fear causing panic. This was presented through social withdrawal and isolation to the extent of preceding their daily lifestyle. According to a policy brief by the United Nations evaluating the possible susceptibilities and effects of the COVID-19 pandemic in Kenya, avoidance behavior caused by fear of contracting the virus led to the fear of associating with others (UNDP, 2020).

Prevalent Hygiene Measures

The World Health Organization and the Center for Disease Control and Prevention (CDC) have recommended social distancing, hand washing and respiratory hygiene as measures to prevent COVID-19 infections. The demand for sanitizers, soaps, face masks and tissues increased, surpassing supply. Every media source stressed the importance of these hygiene measures as a precaution against the disease. While it seemed easy to follow these precautions, there was a concern for those with Obsessive Compulsive Disorder (OCD). A study by Darvishi et al. (2020) established that young people and adults most susceptible to OCD discovered that the repetitive hand washing procedure recommended to alleviate COVID-19 infections lessens their anxiety, even those without any pre-existing conditions unintentionally develop compulsive hand washing and sanitizing. A study carried out by IPSOS (2020) on COVID-19 reported that over 49% of Kenyans wash their hands with soap or sanitizers over ten times daily. On a positive note, a study conducted in Taiwan on the impact of wearing face masks and handwashing to prevent the Coronavirus disease found a significant decrease in other respiratory infections and viral and bacterial diseases (Chiu et al., 2020).

Research Methodology

The report adopted a descriptive survey research design. To assess the current pattern of that population concerning one or more variables in question, the descriptive survey study design aimed to collect data from members of a population. The study was conducted at the Africa International University in Karen, Nairobi County, Kenya. A structured questionnaire, the Beck's Depression Inventory-II (BDI-II) and Beck's Anxiety Inventory (BAI) tools were used to collect information for the study. The target population for the study were all the students undertaking the diploma, bachelor's, master's and PhD degree programs at AIU. Data available

at the AIU's Admissions office indicated that there were 1134 students enrolled in the 2020/2021 academic year. A stratified random sampling method was used in selecting 123 students from AIU to form the sample population.

Table 1: Sample Frame for the Selection of Respondents

Population characteristics	Target population	Sample size
Diploma Students	84	9 (7.41%)
Undergraduate Students	807	88 (71.16%)
Masters Students	204	22 (17.99%)
PhD Students	39	4 (3.44%)
Total	1134	123(10.85%)

Source: Researcher, 2020

The Study Findings

Findings on the Prevalence of Preventive Hygiene Measures

The study's first objective was to establish the prevalence of preventive hygiene measures by students of AIU, Karen Nairobi, Kenya due to the COVID-19 pandemic.

Table 2: Prevalence of Preventive Hygiene Measures

Statements	Yes %	No %
I wash my hands more frequently	104 (91.2%)	10 (8.8%)
I carry a hand sanitizer all the time.	73 (64%)	41 (36%)
I wear a mask all the time because of COVID-19	79 (69.3%)	35 (30.7%)

I always adhere to the social/physical distancing measures	82(71.9%)	32 (28.1%)
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Table 2 shows that many students adhered to the preventive hygiene measures that the government of Kenya had stipulated to avoid contracting COVID-19. It was encouraging to note that more than 60% of the respondents had integrated changes in their behavior to ensure their safety.

Findings on Whether the COVID-19 Pandemic Causes Depression

The second objective sought to find out whether the COVID-19 pandemic caused depression among the students of AIU, Karen. The students were assessed using the Beck's Depression Inventory II (BDI-II) tool, of which the analysis was done according to the BDI cut-offs.

Table 3: BDI II Assessment of Whether COVID 19 Causes Depression

	N	Mean	Std. Deviation
Sadness	114	.51	.812
Pessimism	114	.96	.925
Past failure	114	.95	.911
Loss of pleasure	114	1.04	.861
Guilty feelings	114	.94	.834
Punishment feelings	114	.96	1.034
Self-dislike	114	.91	.937
Self-criticalness	114	1.08	1.032

Suicidal thoughts or wishes	114	.82	.946
Crying	114	.98	1.113
Agitation	114	.97	1.008
Loss of interest	114	1.05	.920
Indecisiveness	113	.79	.921
Worthlessness	114	.89	1.067
Loss of Energy	114	.96	.968
Changes in sleeping pattern	114	1.23	1.005
Irritability	114	.96	1.008
Changes in Appetite	114	1.09	1.141
Concentration difficulty	114	.97	.954
Tiredness or fatigue	114	1.04	1.021
Loss of interest in sex	114	1.00	1.056
Total	114	20.10	0.975

According to Table 3, a mean score of $20.10 \pm 0.975SD$ is statistically significant and thus supports the idea that the COVID-19 pandemic causes depression.

Based on this interpretation, the study also sought to determine the severity of depression among the students caused by the COVID-19 pandemic. Table 4 presents the findings.

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Table 4: BDI II Assessment on the Severity of Depression

			Valid	Cumulative
	Frequency	Percent	Percent	Percent
Minimal depression	41	36.0	36.0	36.0
Mild depression	13	11.4	11.4	47.4
Moderate depression	33	28.9	28.9	76.3
Severe depression	27	23.7	23.7	100.0
Total	114	100.0	100.0	

The results obtained in Table 4 indicate that 54 (47.4%) of the students suffered from minimal and mild depression. In comparison, 60 (52.6%) suffered from moderate and severe depression. This concurs with the study by Son et al. (2020), who reported that people experienced depressive thoughts due to the COVID-19 pandemic.

Findings on the Severity of Anxiety Due to the COVID-19 Pandemic

The Beck's Anxiety Inventory tool was used to assess the severity of anxiety due to the COVID-19 pandemic among the students of AIU, Karen. Table 5 presents the findings.

Table 5: BAI Assessment of the Severity of Anxiety Due to the COVID-19 Pandemic

			Valid	Cumulative
	Frequency	Percent	Percent	e Percent
Low anxiety	58	50.9	50.9	50.9
Moderate anxiety	28	24.6	24.6	75.4

Potentially concerning levels of anxiety	28	24.6	24.6	100.0
Total	114	100.0	100.0	

The results obtained in Table 5 show that about a quarter, 28 (24.6%) of the respondents experienced potentially concerning levels of anxiety, while three quarters experienced low anxiety 58 (50.9%) and moderate anxiety 28 (24.6%). These findings indicate that a significant number of students, 56 (49.2%), suffered from moderate to potentially concerning anxiety levels. This correlates with a study by Wang et al. (2020) that university students experienced higher anxiety levels than the general population due to the COVID-19 pandemic.

Findings on prevalence of avoidance behavior

The fourth objective was to investigate the prevalence of avoidance behavior by AIU, Karen, Nairobi, and Kenya students due to the COVID-19 pandemic.

As observed in Table 6 above, 50% of the respondents thought of quitting or deferring their education because of COVID-19. Furthermore, 66.7% limited physical contact with people, and 59.6% cancelled their social plans like family reunions, gatherings, travelling or meetings. 56.1% avoided or reduced visiting healthcare facilities, and 47.4% avoided or reduced attending prayer places. 46.5% of the respondents avoided reading or listening to the news because it made them anxious. However, fewer respondents had recently purchased groceries out of fear of them running out; 31.6 % and 33.3% had pretended to be sick to avoid going to the workplace or educational institute. Based on the T-test results, all the factors investigated were highly statistically significant ($p = 0.000$). According to the findings, every aspect under investigation showed a high level of avoidance behavior.

These findings support the claim that students' avoidance behavior was prevalent because of the COVID-19 pandemic. It is encouraging that more than half of the respondents had adhered to the Kenyan government directives and incorporated changes in their behaviour to safeguard their health. However, many students avoided the news in both print and broadcast media as it made them anxious.

Discussions

The study's main aim was to investigate the impact of the COVID-19 pandemic on the psychological well-being of college students: The case of Africa International University, Karen, Nairobi, Kenya. The study found that, on average more than 60% of the respondents integrated changes in their behavior by adhering to the preventive hygiene measures stipulated by the Ministry of Health to avoid contracting COVID-19. These findings concur with the study by Balkhi et al. (2020), who found that more than three-quarters of their respondents had incorporated behavior changes to ensure their safety. Harper et al. (2020) found that when people perceive a threat as severe, they are more likely to participate in preventive behavior, and COVID-19 could work as a motivator to conduct behavior that aids in preventing the threat.

The study also found that depressive disorder was prevalent among the students. A mean score of $20.10 \pm (0.975SD)$ was obtained. These findings agree with a study by Rajkumar (2020), who found that symptoms of depression were common reactions to the COVID-19 pandemic. These findings are worrying because the students' education performance was highly likely affected by depression. The study is also supported by the findings of a study conducted by Yao et al. (2020), which established that the COVID-19 pandemic contributes to the risk of suicide in addition to intensifying anxiety, depression and fear in the community.

The study also established that the students were highly likely to suffer from anxiety. The Beck's Anxiety Inventory indicated that 24.6% of the students had potentially concerning anxiety levels. 71.9% of the students reported that fake news surfacing on social media regarding COVID-19 was causing them fear. These findings concur with the study by Balkhi et al. (2020), which highlighted increased anxiety levels by students due to the COVID-19 pandemic and that social media was reported to cause increased panic.

The prevalence of avoidance behavior by students due to the COVID-19 pandemic was established. A p-value of 0.000 was obtained, supporting the objective that there was a high prevalence of avoidance behavior. It is alarming that fifty per cent of the students thought of quitting or deferring their education. These findings agree with a study by Lau et al. (2010) on the H1N1 pandemic, where 77% of the respondents showed some avoidance behavior. Balkhi et al. (2020) also established significant avoidance behavior mainly caused by anxiety due to the COVID-19 pandemic.

Conclusion

This study highlighted the impact of the COVID-19 pandemic on the psychosocial well-being of college students at Africa International University, Nairobi, Kenya. The students adhered to the preventive hygiene measures stipulated by the Kenyan Ministry of Health for their safety which is commendable. However, they suffered from depression and anxiety and portrayed avoidance behavior. Fake news from social media was found to contribute to increased anxiety. These findings are worrying as they bring to question the mental health of college students. When students' psychosocial well-being is wanting, it will result in their studies being negatively affected. Thus, urgent intervention is needed to alleviate the psychosocial problems brought about by the COVID-19 pandemic on college students.

Recommendations

The study recommends that universities and colleges initiate psychoeducation programs to educate students on coping with the COVID-19 pandemic and other pandemics that might occur in the future. There should be a concerted effort between the colleges and the government to educate students on coping with pandemics. Counselling services should be initiated in colleges and implemented to be accessible and affordable for the students to assist them in their psychosocial well-being. The students also need to be educated on resilience after facing complex challenges. To curb anxiety, the government should put measures to mitigate the spread of fake news from social media and educate people on where to obtain reliable information.

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