Anxiety and Stress Symptoms Associated with Covid-19 Pandemic among Teachers of Vocational Enterprises Institutes in Nigeria

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ABSTRACT

The study identified the anxiety and stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria. The research design used for this study was a cross-sectional study. The study was conducted in Abuja, Nigeria. The population of the study was 154 respondents consisting of 91 male and 63 female teachers from the six Vocational Enterprises Institutes, one each from the six area councils in Abuja, Nigeria. Total population sampling technique was used to select the whole population of the study. The study utilized two instruments titled: Coronavirus Anxiety Scale and Perceived Stress Scale as an instrument for data collection. Cronbach Alpha statistical method was used to determine the reliability indices of the instruments and found to be .90 and .91 respectively. The study employed the use of a weighted mean formula to answer the research questions and z-test to test the null hypotheses using GraphPad online z-test calculator. Findings from the study among others revealed feeling dizzy, light-headed, and nervous as well as having trouble falling or staying asleep and losing interest in eating to be the anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria. The study recommended among others that, the education secretariat of the Federal Capital Territory, Abuja should develop a framework on the management of anxiety and stress associated with COVID-19 for teachers in Vocational Enterprises Institutes.

INTRODUCTION

Coronavirus pandemic, also known as COVID-19 pandemic, is an ongoing pandemic of caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), first identified in December 2019 in Wuhan, China. The COVID-19 pandemic is the defining global health crisis of our time and the greatest challenge we have faced since world war two (United Nations Development Programme UNDP, 2020). The pandemic has caused large-scale institutional and behavioural 'shock effects' in various areas of human activity including education. The widespread of the COVID-19 pandemic led to the closure of primary, secondary and tertiary schools in over 100 countries (United Nations Educational, Scientific and Cultural Organization UNESCO,

2020). This closure has caused an unprecedented upheaval in the educational systems around the world especially in schools such as Vocational Enterprise Institutions.

Vocational Enterprise Institutions (VEIs) are institutions recently approved by the Federal Government of Nigeria to provide a veritable alternative route to higher education. The aim of VEIs is to widen access to Technical and Vocational Education and Training (TVET) and serve the needs of the industry and self-empowerment of the nation's citizens (National Board for Technical Education NBTE, 2012). The achievement of the stated aim is threatened by the negative impact of the novel COVID-19 pandemic on school. According to Bao *et al*. (2020), the multi-faceted changes in school system that have directly and indirectly resulted from the pandemic are, without doubt, the most universally shared major stressor among teachers.

Teachers are bedrock of any sound educational system just as education is to any developed nation. As schools are reopened after seven months forced lockdown, teachers are faced with both physical and psychological threats created by the COVID-19 pandemic. According to Grubic *et al*. (2020), COVID-19 pandemic and efforts to control the spread through non-pharmaceutical interventions and preventive measures such as social-distancing and other protocols prompted both psychological and emotional effects on teachers, especially, teachers in VEIs. Brooks *et al*. (2020) stressed that, worldwide, the Covid19 pandemic has created an omnipresent psychological, physical, financial, and emotional threats to the well-being of teachers. Zumla *et al.* (2010) confirmed that, the psychological impact of pandemic such as COVID-19 on teachers include anxiety, stress and depression among others.

Anxiety could be seen as a response to a vague or unknown threat. It can be fueled by uncertainty and by fears of risk of harm to self or others. Anxiety manifests itself when we believe that a dangerous or unfortunate event may take place and are expecting it (Brawman-Mintzer & Yonkers, 2017). Bao *et al.* (2020) revealed that, there is significant adverse effects of COVID-19 pandemic on the teachers' psychological well-being resulting to anxiety. According to Kroenke *et al*. (2017), teachers' anxiety negatively affects students' academic performance. Anxiety impairs focus and concentration, memory, and visual motor skills which may lead to stress.

Stress could be seen as a normal physiological response to an abnormal situation. It enables our body to adapt to the multiplicity of negative events that we experience, such as COVID-19 pandemic. Lazarus *et al*. (2014) defined stress as a particular relationship between the person and the environment that the person considers to be taxing or exceeding his or her resources and putting his or her well-being at risk. Québec (2020) revealed that, the psychological symptoms of stress may include feeling upset, unable to control things, nervous, unconfident, difficulties pilling up and not being on top of things. Literatures such as Cao *et al.* (2020); Grubic *et al.* (2020) shown that, teachers suffering from pandemic-related psychological distress tend to exhibit elevated levels of post-traumatic stress, general stress, anxiety, health anxiety, and suicidality which may last well beyond the course of the pandemic.

The effects of these unique circumstances on the mental wellbeing of teachers are presently poorly understood, and they need to be investigated and documented, as they may have long-term mental health consequences as well as implications for educational system (Ana &

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Marcantonio, 2020). Hence, this study sought to identify the anxiety and stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.

Teachers are bedrock of any sound educational system just as education is to any developed nation. Teachers need to be in a good physical, psychological and emotional state to function effectively and achieve the goal of any educational programme such as that of Vocational Enterprises Institutes. Unfortunately, the surge of COVID-19 has prompted both psychological and emotional effects on teachers. Brooks *et al*. (2020) confirmed that, worldwide, the Covid19 pandemic has created an omnipresent psychological, physical, financial, and emotional threats to the well-being of teachers including teachers in Vocational Enterprises Institutes, Abuja. Zumla *et al.* (2010) stressed that, the psychological impact of pandemic such as COVID-19 on teachers include anxiety, stress and depression among others. These psychological impact may have long-term mental health consequences as well as implications for educational system (Ana & Marcantonio, 2020). Hence, this study sought to identify the anxiety and stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.

Aim and Objectives of the Study

The study aimed at identifying the anxiety and stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria. The objectives of the study sought to identify the:

1. Anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.
2. Stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.

Research Questions

The following research questions were formulated to guide the study:

1. What are the anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria?
2. What are the stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria?

Hypotheses

The following null hypotheses were formulated to guide the study and we're tested at .05 level of significant:

HO$_1$: There is no significant difference between the mean responses of male and female teachers on the anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.

HO$_2$: There is no significant difference between the mean responses of male and female teachers on the stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.

METHODOLOGY

The research design used for this study was the descriptive survey research design, specifically, using cross-sectional study. Maninder (2016) described cross-sectional study as the type that involves collection of data from a population at one specific point in time. This design is considered suitable for this study because, it enables the researcher to measures the anxiety and stress associated with COVID-19 pandemic

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among teachers at the same time. The study was conducted in Abuja, Nigeria. The population of the study is 154 respondents consisting of 91 male and 63 female teachers from the six Vocational Enterprises Institutes, one each from the six area councils in Abuja, Nigeria. Total population sampling technique was used to select the whole population of the study. The study utilized two instruments titled: Coronavirus Anxiety Scale and Perceived Stress Scale as instrument for data collection. The Coronavirus Anxiety Scale adopted from Lee (2020) to measure anxiety symptoms associated with COVID-19 pandemic among teachers and Perceived Stress Scale adopted from Cohen *et al*. (1983) to measure stress symptoms associated with COVID-19 pandemic among teachers. Both instruments were modified to suit the needs of the study. The instruments were designed on five points rating scale of:

Never, Almost Never, Fairly Often, Often and Very Often with numerical values of 1, 2, 3, 4 & 5 respectively. Cronbach Alpha statistical method was used to determine the reliability indices of the instruments and found to be .90 and .91 respectively. The study employed the use of a weighted mean formula to answer the research questions and z-test to test the null hypotheses using GraphPad online Z-test calculator. Decision on research questions was based on real limit of numbers while decision on the hypotheses was based on comparing z-value with p-value.

RESULTS:
Research Question One
What are the anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria?

Table 1: Mean responses of male and female teachers on anxiety symptoms associated with COVID-19 pandemic   N1=91, N2=63

S/N	Items	$\overline{X}_1$	$\overline{X}_2$	$\overline{X}_A$	Remark
1	I felt dizzy when I read or listened to news about the coronavirus	3.54	3.59	3.56	Often
2	I felt lightheaded when I read or listened to news about the coronavirus	3.61	3.59	3.60	Often
3	I felt frozen when I thought about or was exposed to information about the coronavirus	2.63	2.66	2.64	Fairly Often
4	I felt nauseous when I thought about or was exposed to information about the coronavirus	3.52	3.72	3.60	Often
5	I had stomach problems when I thought about or was exposed to information about the coronavirus	2.10	2.31	2.19	Fairly Often
6	I had trouble falling or staying asleep because I was thinking about the coronavirus	3.60	3.54	3.58	Often
7	I lost interest in eating when I thought about or was exposed to information about the coronavirus	3.57	3.53	3.55	Often
	Grand Means	**3.22**	**3.27**	**3.24**	**Fairly Often**

Keys: N_1 = Number of male teachers, N_2 = Number of female teachers, $\overline{X}_1$ = Mean response of male teachers, $\overline{X}_2$ = Mean response of male teachers, $\overline{X}_A$ =Average mean response of male and female teachers.

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Table 1 revealed that, 5 out of the 7 items had average mean values between 3.55 to 3.60 and 2 items had average mean values of 2.19 and 2.64. This indicated that, the 5 items are often experienced and the 2 items are fairly often experienced anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria

Research Question Two: What are the stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria?

Table 2: Mean responses of male and female teachers on stress symptoms associated with COVID-19 pandemic   N1=91, N2=63

S/N	Items	$\overline{X}_1$	$\overline{X}_2$	$\overline{X}_A$	Remark
1	I felt upset because of COVID-19	3.50	3.62	3.55	Often
2	I felt unable to control the important things in my life due to COVID-19	3.64	3.58	3.62	Often
3	I felt stressed due to COVID-19	3.79	3.66	3.74	Often
4	I felt unconfident about my ability to handle problems due to COVID-19	3.63	3.67	3.65	Often
5	I felt things were going not my way due to COVID-19 pandemic	3.52	3.65	3.57	Often
6	I felt difficulties were piling up due to COVID-19 pandemic	3.69	3.75	3.57	Often
7	I felt not on top of things due to COVID-19 pandemic	3.52	3.75	3.61	Often
8	I felt I could not cope with things due COVID-19 pandemic	3.40	3.66	3.51	Often
9	I felt unable to control irritations due to COVID-19	3.48	3.60	3.53	Often
10	I felt angered because of COVID-19 related issues	3.53	3.54	3.53	Often
	Grand Means	**3.57**	**3.65**	**3.59**	**Often**

Table 2 revealed that, all the 10 items had average mean values between 3.51 to 3.74. This indicated that, all the 10 items are often experienced stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria

Hypothesis One
There is no significant difference between the mean responses of male and female teachers on the anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.

Table 3: Z-test analysis for the test of significant difference between the mean responses of male and female teachers on the anxiety symptoms associated with COVID-19 pandemic.

Respondents	N	$\overline{X}$	SD	df	z-value	p-value	Remark
Male Teachers	91	3.23	0.56	152	0.67	0.13	Not Significant
Female Teachers	63	3.27	0.55				

Table 3 revealed that the p-value > 0.5, which implies that there is no significant difference between the mean responses of male and female teachers on

the anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja,

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Nigeria. Hence, hypothesis one was retained.

Hypothesis Two
There is no significant difference between the mean responses of male and female teachers on the stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.

Table 4: Z-test analysis for the test of significant difference between the mean responses of male and female teachers on the stress symptoms associated with COVID-19 pandemic.

Respondents	N	$\overline{X}$	SD	df	z-value	p-value	Remark
Male Teachers	91	3.57	0.56	152	0.71	0.23	Not Significant
Female Teachers	63	3.65	0.55				

Table 4 revealed that the p-value > 0.5, which implies that there is no significant difference between the mean responses of male and female teachers on the stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria. Hence, hypothesis two was retained.

FINDINGS
1. Feeling dizzy, light-headed, frozen and nervous as well as having stomach problem, trouble falling or staying asleep and losing interest in eating were found to be the fairly often and often experienced anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.
2. Feeling upset, unable to control things, stressed, unconfident, things not going my way, difficulties pilling up and not being on top of things. Others include, feeling unable to cope with things, and to control irritations and being angered were found to be the often experienced stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.
3. There is no significant difference between the mean responses of male and female teachers on the anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.
4. There is no significant difference between the mean responses of male and female teachers on the stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria.

DISCUSSION OF FINDINGS
Findings on the anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria revealed feeling dizzy, light-headed, and nervous as well as having trouble falling or staying asleep and losing interest in eating. The findings concords with Eysenck *et al*. (2017) who disclosed that, 70.4% of the students in China experienced minimal, moderate, severe, and most extreme anxiety symptoms. This implies that, the level of anxiety experienced among teachers threatens their mental health which pose negative consequences to the educational system.

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Hence, the need to manage the anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja is highly important.

Nevertheless, the z-test analysis for the test of significant difference between the mean responses of male and female teachers on the anxiety symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria revealed not significant. This implies that, both the male and female teachers experienced similar symptoms of anxiety associated with COVID-19 pandemic. The finding is in disagreement with Eysenck *et al*. (2017) who disclosed that, anxiety symptoms among female students were higher compared to the male students.

Findings on the stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria revealed feeling upset, unable to control things, stressed, unconfident, things not going my way, difficulties pilling up and not being on top of things. Others include, being angered, feeling unable to cope with things, and to control irritations. The findings concords with Wang *et al*. (2020) who revealed high symptoms of psychological responses that include stress and depression among the general population during the initial stage of the COVID-19 epidemic in China. The educational implication of the finding is that, the stress symptoms experienced among teachers threatens the achievement of the goal of Vocational Enterprises Institutes. Hence, the need to manage the stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja is extremely significant.

Nevertheless, the z-test analysis for the test of significant difference between the mean responses of male and female teachers on the stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria revealed not significant. This implies that, both the male and female teachers experienced similar symptoms of stress associated with COVID-19 pandemic. The finding is not in harmony with Eysenck *et al*. (2017) who disclosed significantly different stress symptoms between male and female among the general population during the initial stage of the COVID-19 epidemic in China.

CONCLUSION

Based on the findings from the study, it is concluded that insight into anxiety and stress symptoms associated with COVID-19 pandemic among teachers in Vocational Enterprises Institutes in Abuja, Nigeria is provided. The study revealed that, both male and female teachers in Vocational Enterprises Institutes in Abuja, Nigeria often experienced similar anxiety and stress symptoms associated with COVID-19 pandemic. The findings of this study are particularly important for the development of effective framework on the management of anxiety and stress associated with COVID-19 for teachers in Vocational Enterprises Institutes.

RECOMMENDATIONS

Based on the findings from the study, the following recommendations were made:

1. The education secretariat of the Federal Capital Territory, Abuja should develop a framework on the management of anxiety and stress associated with COVID-19 for teachers in Vocational Enterprises Institutes.

2. The education secretariat of the Federal Capital Territory, Abuja should organize workshop on the management of anxiety and stress associated with COVID-19 for

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teachers in Vocational Enterprises Institutes.

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