

Psychological effects of COVID 19 on job performance of teachers in secondary schools in Kakamega Central Sub-County, Kenya

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ABSTRACT

Psychosocial stress resulting from Covid-19 and psychosocial adjustment to the pandemic had a great impact on the job performance of teachers in secondary schools. The stress caused psychological and social changes in teaching and learning activities in secondary schools. According to the World Health Organization (WHO) report (2020), the fast-spreading infectious disease has been causing universal awareness, anxiety, and distress, all of which are natural psychological responses to the randomly changing condition. Among teachers, it was characterized by tension, anxiety, depression, irritation, worries, and fatigue or a state of mental or emotional strain. The objective of the study was to determine the psychological effects of Covid-19 related stress on the job performance of teachers. The study was guided by social cognitive theory. A mixed methods research approach was used, involving three specific designs: descriptive survey, ex-post facto, and correlational research designs. The target population consisted of 429 teachers, 24 principals, and 1 sub-county director of education. Stratified random sampling technique was used to select 7 principals and 228 teachers from 24 public secondary schools in Kakamega Central sub-county. Research instruments included a questionnaire and an interview schedule. To cater for face, content, and construct validity, the instruments were examined by the researcher, followed by supervisors in the Department of Educational Psychology, Masinde Muliro University of Science and Technology, before piloting. A pilot study was conducted in two sampled secondary schools to ascertain the validity and reliability of the instruments. Reliability coefficient was determined at Cronbach's alpha of 0.845, which indicates that the reliability test for the questionnaire was good for our scale. Data analysis was done with the help of descriptive and inferential statistics using the SPSS program. ANOVA was used to analyze effects, while regression was used to analyze relationships. Quantitative data was keyed into SPSS for analysis. The descriptive analysis of the findings indicated that psychological factors affected teachers' job performance. From the inferential analysis, the results of the study indicated that the psychological effects of Covid-19 had a substantial impact on job performance. From the findings, at a 5% level of significance, psychological effect ($p = 0.001 < 0.05$) was a significant predictor of job performance of teachers. The study concluded that psychological stress factors of Covid-19 affected the job performance of teachers. The study recommended that schools should take into consideration the psychological factors which affect the job performance of teachers so as to mitigate their effect on adjustment in order to improve job performance during pandemics.

Keywords: COVID 19, Job Performance, Psychosocial Adjustment, Psychosocial Stress, Secondary Schools

I. INTRODUCTION

Psychosocial stress resulting from Covid-19 and psychosocial adjustment to the pandemic had a great impact on the job performance of teachers in secondary schools. The stress caused psychological and social changes in teaching and learning activities in secondary schools. According to United Nations Environment and Scientific Organization (UNESCO) report 2020a, the fast-spreading infectious disease has been causing universal awareness, anxiety and distress, all of which are natural psychological responses to the randomly changing condition. The SARS-CoV-2 virus, which causes Covid-19, is a contagious respiratory disease that was initially discovered at a Wuhan seafood market in late December 2019 (Huang & Wang, 2020). It affected teaching and learning psychologically, evoking both mental and emotional responses. Both teaching and learning are mental processes that call for participants to have healthy mental health. Therefore, teachers' mental health affects how well they perform on the job (Kathule, 2020). Stress is a state of disequilibrium between a teacher's body and mind that is characterized by tension, anxiety, depression, irritability, concerns, and weariness, especially when it's caused by the effects of COVID-19. Likert scales can be used to measure the many components of stress based on factors such as frequency of occurrence over a given period of time. Front-line workers, including doctors, other health workers, police, and others, who have been tirelessly working to combat the pandemic, cannot be ignored when it comes to mental health difficulties (stress, depression, insomnia (Anger & Plünnecke, 2020).

According to Odusanya (2020), the rapidly spreading infectious disease has been causing universal awareness, anxiety and distress, all of which are normal psychological reactions to the condition's unpredictable changes. Destructive mental health disorders were the outcome of the disease. The prevalence of adverse psychosomatic outcomes among common people has been rising. Mass hysteria and panic over COVID-19 spreading quickly could have caused long-lasting psychological issues for people from all socioeconomic backgrounds, which could have been even more harmful than the virus itself in the long run (Rubin & Wessely, 2020). Miles (2015) states that the psychological effects of quarantine can range from immediate effects, such as irritability, fear of contracting and spreading infection to family members, anger, confusion, frustration, loneliness, denial, anxiety, depression, insomnia, and despair, to extreme consequences, such as suicide. Previous outbreaks, such as the Ebola virus, have also shown this. Because they are unsure of their health, isolated cases may experience anxiety and develop symptoms of obsessive-compulsive symptoms, such as frequent temperature checks and sterilization (Asgary et al., 2022).

For teachers who stood tall during these disruptions, the adjustment strategies worked for them included shifting to remote learning, and home based social support through private tuition (Sánchez-Teruel *et al.*, 2021) Face-to-face classrooms transformed into virtual rooms. The lectures, assignments, quizzes and presentations were all conducted online. These practices were not a new phenomenon in developed countries, but in developing countries, they were new. Therefore, sudden implementation of e-learning could not be error-free as people in developing states were unfamiliar and lack the necessary resources (Raza & Khan, 2021).

There have been numerous reports on the psychological effects of COVID-19 on job performance more so on secondary School teachers. In a recent study, as noted by Li et al. (2020), factors such as age, sex, teaching level (primary, middle, high school, and university), and school location were related to teachers' COVID-19-related anxiety levels. Another study assessed the relationship between mask-wearing and anxiety among teachers in China. That most teachers were not comfortable wearing masks while teaching, probably due to lack of facial feedback from learners and breathing difficulties.

In Kakamega County, Ayoyi (2020) noted that teachers experienced Covid-19 induced stress especially during normal teacher student interactions in school. Teachers have had different challenges including boredom, anxiety related to educational development, irritability, developmental issues, fear of infection, loneliness, panic, depression, hampered routine, domestic violence, drug abuse among others.

Mackatiani et al. (2020) noted that the prevalence of infection by teenagers was 47% compared to 6.7% adults suggesting significant spread in schools in Kakamega county according to Sero prevalence surveys conducted by the Swedish Public Health Agency. The study was guided by two theories: Albert Bandura's Social Cognitive Theory, which explains psychosocial adjustment for job performance among teachers during the Covid 19 pandemic period, and Rahe and Holmes' Stress as a Stimulant Theory, which describes psychosocial stress and its effects on job performance.

1.1 Statement of the Problem

According to Margaret (2022), 18% of teachers in Kenya showed significant anxiety symptoms. A report by Minet Kenya Insurance reported that 400 teachers sought mental health services in different mental health facilities across the country. Kathula (2020) notes that 43.3% of learners were not taking online teaching services. These statistics may be implied in Kakamega County in Kenya and the study determined the extent to which this Covid-19 related mental health issues affected job performance of teachers and how teachers overcame them. Mackatiani and Likoko (2022) noted after a research on Curriculum delivery in secondary schools in Kakamega County that covid 19 had adverse effects on curriculum delivery. Their analysis of Variance accounted for 32.5% variability in curriculum delivery whereas 65% was determined by other factors. Online teaching become a challenge, it was noted that 30% were not able to catch up with online due to lack of learning gadgets and poor network connectivity (Ngwacho, 2024). It is against this backdrop that this research aimed to determine the psychological effects of Covid-19 related stress on job performance of teachers in Kakamega Central Sub-County, Kenya.

1.2 Research Objectives

To determine the psychological effects of Covid-19 related stress on job performance of teachers in Kakamega Central Sub-County, Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Review

Rahe and Holmes in 1967 proposed the stimulus theory of stress, which conceptualizes stress as a stimulus and a major life event or change that necessitates a reaction, adjustment, or adaptation. The stress as stimulus hypothesis posits that: first, change is intrinsically stressful; second, life events necessitate uniform degrees of adjustment across the population; and third, there exists a universal threshold of adjustment beyond which sickness ensues (Gergen, 2012).

The Social Cognitive Theory was propounded by Bandura in 1977. Albert Bandura's theory postulated that effective interactions were among the factors that contributed towards improving individual behaviors and attributes. Self-efficacy was the main determinant of social cognitive theory. Self-efficacy refers to the individual self-ability of performing a task most, especially in a challenging period hence adaptation. Teachers needed self-efficacy during Covid 19 pandemic. According to Gergen (2012), many factors determine the level of self-efficacy of individual behavior and attributes. These factors may include factors such as years in service, motivation, in-service training, and feelings, among others. This same factors correlate with psychosocial factors which determine how teachers adjust and job performance of teachers during hard times.

2.2 Empirical Review

Psychosocial effects include all psychological and social factors that caused Covid 19 related stress. According to UNESCO and UNICEF (2020), Covid 19 was fast-spreading infectious disease that had been causing universal awareness, anxiety and distress, all of which are natural psychological responses. Covid 19 had psychological effects on teaching and learning which included mental and emotional responses. Teaching and learning are both mental processes which require participants to be mentally stable. Job performance of teachers therefore relies on mental health. Stress is a disequilibrium between the body and mind of a teacher characterized by tension, anxiety, depression, irritation, worries and fatigue or state of mental or emotional strain especially such as caused by the effects of Covid-19. The components of stress can be measured using Likert scales basing on for example frequency of occurrence within a specific period of time. We cannot ignore the mental health issues (stress, depression, sleeplessness, etc.) of front-line workers such as, doctors, other health workers, police, and others who have tirelessly been working day and night to fight the pandemic (Anger & Plünnecke, 2020).

Globally, the Covid-19 effect on mental well-being has manifested and is on an increased level. Global concerns have been raised on its impact on the mental well-being of professionals in various sectors who thrive in different economies in the world (Kluge, 2020). This infectious disease has negatively impacted many sectors globally including, economic, tourism, not forgetting education sector with the unpredicted closure of learning intuitions and immediate suspension of face- face learning activities (Li et al., 2020). The above scholars looked at the general impact on all sectors and all professionals. This particular research was concerned about mental health and the negative impact on teachers and the education sector.

Proper job performance of workers requires smooth running of programs in the working environment. Sahni and Sharma (2020) investigated the extent to which employee behavior in terms of stress and coping mechanism being impacted by the COVID-19 pandemic in Saudi Arabia. Sahni and Sharma (2020) found out that interruptions during work-in-progress, inadequate communication at the workplace, inadequate direction were among induced stress factors that seem to have affected workers' mental health. The scholar did not give special attention to teachers as the most disturbed by the pandemic. Teachers among these workers were interrupted by abrupt closure of schools hence interfering with job performance.

Mental illness among teachers has also been associated with Covid-19. Victims of this have been unable to access professional help for them to overcome its effects. Madhulika *et al* (2023) examined the mental health effects of COVID-19 in the workplace in Italy. During the research it was found out that the imposition of COVID-19 protocols resulted in income reduction, increase level of anxiety, forced suspension of workplace activity all of which has jointly impacted the mental health of workers. Teachers in schools cannot deliver fully under such circumstances hence affecting job performance. Giorgi did this research on all workers in general, but this research gave special attention to teachers only in secondary schools.

The job effectiveness of teachers is significantly correlated with their mental and emotional well-being. Rubin and Wessely (2020) observes that this unexpected, rapidly disseminating infectious disease has engendered global awareness, worry, and anguish, which are reasonable psychological responses to the erratically evolving situation. Kluge (2020) asserts that adverse psychosomatic outcomes among the general populace were anticipated to rise markedly due to the pandemic and the incessant influx of accessible information and amplified messaging disseminated through various online social networking platforms. The swift escalation of widespread frenzy and terror surrounding COVID-19 may lead to persistent psychological issues across all socioeconomic sectors, perhaps proving more harmful in the long term than the virus itself. Teachers were obviously be victims of these psychological problems.

Teachers at secondary schools subjected to lockdowns were unable to reach their students, so impeding their professional efficacy. Quezada et al. (2020) observed that prior outbreaks, such as Ebola, have indicated that the psychological ramifications of quarantine can range from immediate effects, including irritability, fear of infection transmission to family members, anger, confusion, frustration, loneliness, denial, anxiety, depression, insomnia, and despair, to severe outcomes, such as suicide. Panisoara and Panisoara (2020) posits that individuals with suspected isolated instances may experience anxiety stemming from ambiguity over their health status, perhaps leading to the emergence of obsessive-compulsive symptoms, including repetitive temperature assessments and sterilizing practices.

Seymour et al. (2019) indicate that a greater number of students and educators are encountering unpleasant emotions, with a significant rise in symptoms such as anxiety, sadness, and stress during the COVID-19 school closures.

Delgado (2020) investigated the impact of online learning on the mental health of students in Italy. Their studies revealed that physical complaints, anxiety, burnout syndrome, and depression had adversely impacted students' mental health. The sudden closure of schools and transition to online instruction, due to the shared physical environment of instructors and students, hindered lesson planning and delivery, hence diminishing teachers' work effectiveness. This research concentrated on pertinent data, particularly anxiety and depression as the primary psychological variables influencing teachers' job performance.

Technology addiction was a mental health concern stemming from ennui. Social alienation and self-isolation have significantly led to the increased utilization of technology. Sahni and Sharma (2020) observed that this impacted individuals of all ages as a result of boredom. Remote learning may denote education conducted from a location apart from a traditional classroom setting. Virtual space learning and its abrupt transition have been significant sources of stress. Sánchez-Teruel et al. (2021) indicate that instructors suffer stress at a medium to high level, mostly due to the transition of education to a virtual environment. Mackatiani et al. (2020) emphasizes that instructors' transition to distant education has occurred rapidly, thereby creating stress. Consequently, following the first surge of fatigue and skepticism, an enhancement in the efficacy and significance of instructional activities was noted, as teachers recognized both the merits and drawbacks of the approach. Panisoara and Panisoara (2020) investigated the stressors encountered by instructors regarding online education during the Covid-19 outbreaks in Romania. It was shown that sadness and anxiety were significant stressors for teachers throughout the pandemic outbreaks.

Numerous investigations have documented the psychological impacts of COVID-19. A recent research by Li et al. (2020) indicated that variables such as age, gender, educational level (primary, middle, high school, and university), and geographical location of the school were associated with teachers' anxiety levels connected to COVID-19. A separate study evaluated the correlation between mask usage and anxiety levels among educators in China. The majority of teachers had discomfort wearing masks while instructing, perhaps due to the absence of facial input from students and respiratory challenges. Simultaneously, an additional research investigated the frequency of anxiety disorders among educators during the COVID-19 pandemic (Li et al., 2020). The particular causes for instructors' worry around COVID-19 have not been examined. Recognizing educators' apprehensions over COVID-19 infection and education during the pandemic enabled us to tackle the fundamental sources of COVID-19-related fear. This study aimed to determine whether the same causes of worry were present in Kakamega Central Subcounty, Kenya.

Another study by Lin (2020) revealed that addictions to technology gadgets also led to various psychological problems such as attention/concentration issues, alexithymia (dysfunction in emotional expression, interpersonal relation and experience detachment), which limited lesson delivery and assessment for teachers, and other biological concerns as well such as strain in the eyes, headache, which supported the psychological effects influenced job performance of teachers (Lin, 2020). This is probably because people were bored and were left with no other choices but to use internet on their phones and other electronic gadgets.

Oduanya (2020) investigated the nature of depression, anxiety, and stress among Indians in times of COVID-19 lockdown. Their findings revealed that Covid 19 brought about economic challenges such as shortage of food and other resources supplies were among the factors that caused acute stress, depression and anxiety during the lockdown. However, for this research, the researcher was concentrating on those factors which may directly affect teacher professional performance such as anxiety and depression as brought out by Oduanya (2020).

In Africa, as opposed to other continents teachers faced a challenge in mitigating the challenges of mental health. Mackatiani and Likoko (2022) note that there is still long-standing stigma around seeking mental health care in Africa. This justifies the need for this study in Kakamega central sub county in Kenya. Over 70 percent of workers do not access professional help due to many barriers such as low mental health literacy, lack of awareness on availability and how to access counseling and psychotherapy support, treatment related doubts, and fear of negative social consequences, among many others (Seymour et al. 2019; Quezada et al. 2020; Madhulika et al., 2023). This including tight schedule of teachers and the number of counsellors available for assisting teachers are also few considering the large number of teachers affected by mental health issues. The study done by the scholars focused on all professional workers; this study focused on secondary school teachers in Kakamega County.

Mackatiani et al. (2021) notes that changes in learning process like introducing online classes and closing of schools to prevent the spread of the virus have been detrimental to many students in Kakamega County. This is because majority of teachers lacked skills of conducting online classes hence finding stressful and challenging to teach online. A few teachers attempted to create platforms for interaction through social media. Many students would however not manage online classes for lack of gadgets hence creating detachment from their teachers and preventing social interactions. This study focused on students' academic performance and the effects were not largely psychosocial while this particular study focused psychosocial effects on teacher job performance.

III. METHODOLOGY

The study was conducted in public secondary schools in Kakamega central sub county, Kakamega County. The sub-county has a very high population of teachers due to high interest in urban centers which attracts high population of residents. Mixed methods research approach was used involving three specific designs; descriptive survey, ex-post facto and correlational research designs. Target population was 454 that included 429 TSC teacher 24 principals and 1 sub-county director of education from 24 public clustered as Boys Boarding, Girls Boarding and Mixed Day schools. From the selected sample of 228 respondents, stratified random sampling was used to identify sub-groups in the target population; the strata were Sub County director of education, principals and teachers. The teachers and principals were then selected randomly from each group while purposive sampling was used to select sub county director of education. Questionnaire was used to collect quantitative data from classroom teachers while Key informant interviews were conducted for principals and sub-county director using interview guide hence qualitative data. Cronbach alpha coefficient 0.845 indicated test for reliability was good, while a pilot study was conducted in non-participating secondary schools to determine validity of the instruments. The respondents were required to rate their opinions against five statements on a five point Likert scale with a score of **1** indicating ‘Strongly Disagree’ and **5** indicating ‘Strongly Agree’. The ratings were analyzed as frequencies, mean, standard deviation (Std), the composite mean and composite standard deviation. The data was analyzed using Statistical Package for Social Sciences (SPSS) and presented using tables and charts.

IV. FINDINGS & DISCUSSION

4.1 Response Rate

A total of 202 questionnaires were used for data analysis. This represented 89% of the questionnaire’s return rate. According to Sileyew (2020) over 60% return rate was acceptable return for survey study such as this one. Moreover, some studies propose a response rate of over 85% as appropriate in order to draw meaningful findings from survey research.

Table 1
Response Rate

Unit of observation	Data collection method	Target population	Sample size	Usable response	% effective response rate
Teachers	Questionnaires	429	228	202	89

4.1.1 Gender of the respondents

The study collected information on gender of respondents. It was aimed at establishing gender disparities in teaching of secondary school.

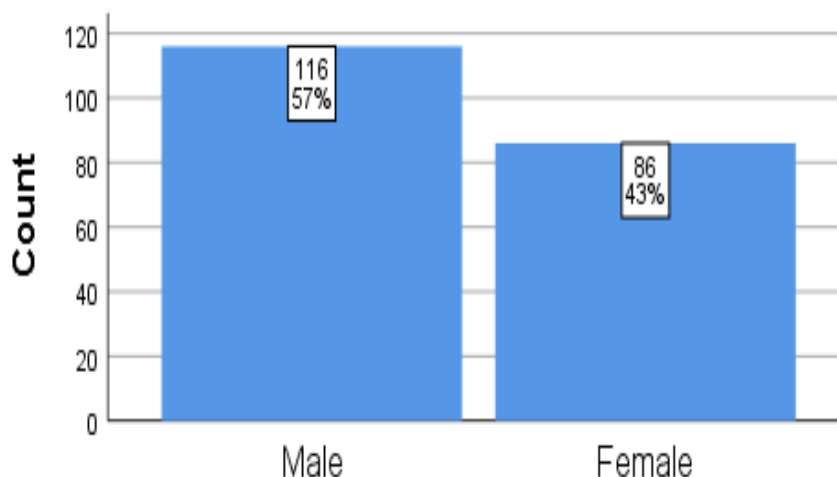


Figure 1
Gender of the Respondents

The results in Figure 1 illustrates that 116 (57%) and 86 (43%) of the respondents were male teachers and female teachers, respectively. The findings reveal the gender disparity in favor of male teachers as compared to the female. Though there are more male teachers, both sexes were represented in the study and thus there was no biasness in terms

of gender representation. Number of male teachers exceeded that of female teachers by 14%. However, Sánchez-Teruel et al. (2021) recognize the role of gender in psychosocial adjustments amongst individuals, by taking note of the fact that women although fewer presented the higher levels of resilience than men; probably due to the fact that they have higher levels of self-efficacy.

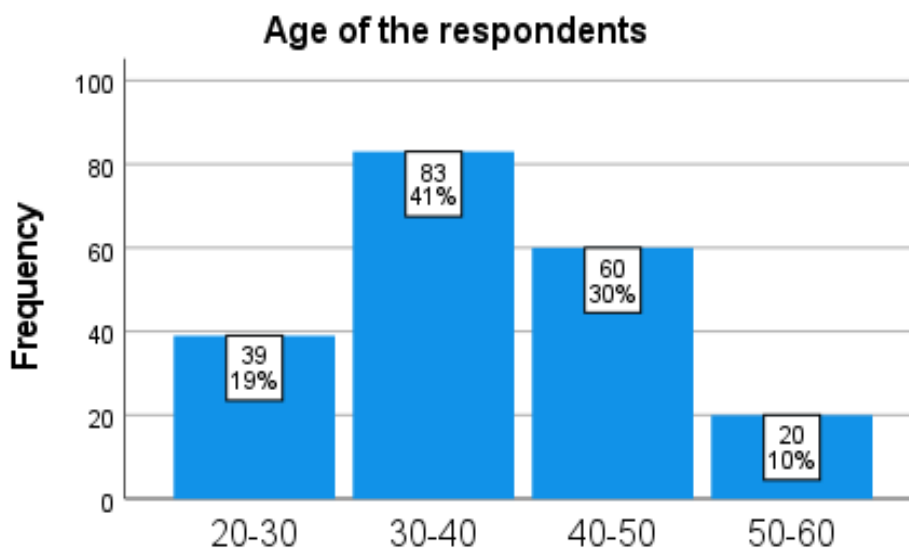


Figure 2
Age of the Respondents

The results in Figure 2 above shows that 83(41%) of teachers were between the age of 30-40 years, followed by 60(30%) of teachers who were between age 40-50 years. The results only show that 20(10%) of teachers were between 50-60 years. This implies that most teachers may have survived death due to Covid-19 since the immunocompromised age was above 65 years (UNESCO, 2020a).

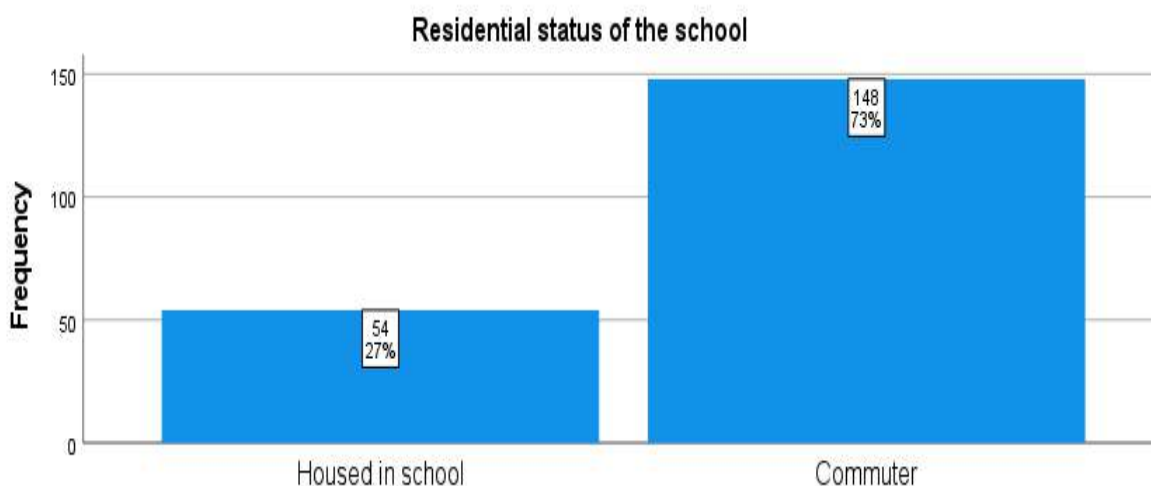


Figure 3
Residential Status of the Respondents

The results from Figure above shows that 148(73%) of the teachers in schools are commuter while 54 (27%) are housed in school. This implies the majority of commuters were affected by government regulations such as curfew hence reducing interaction with students even at home (Rubin & Wessely, 2020).

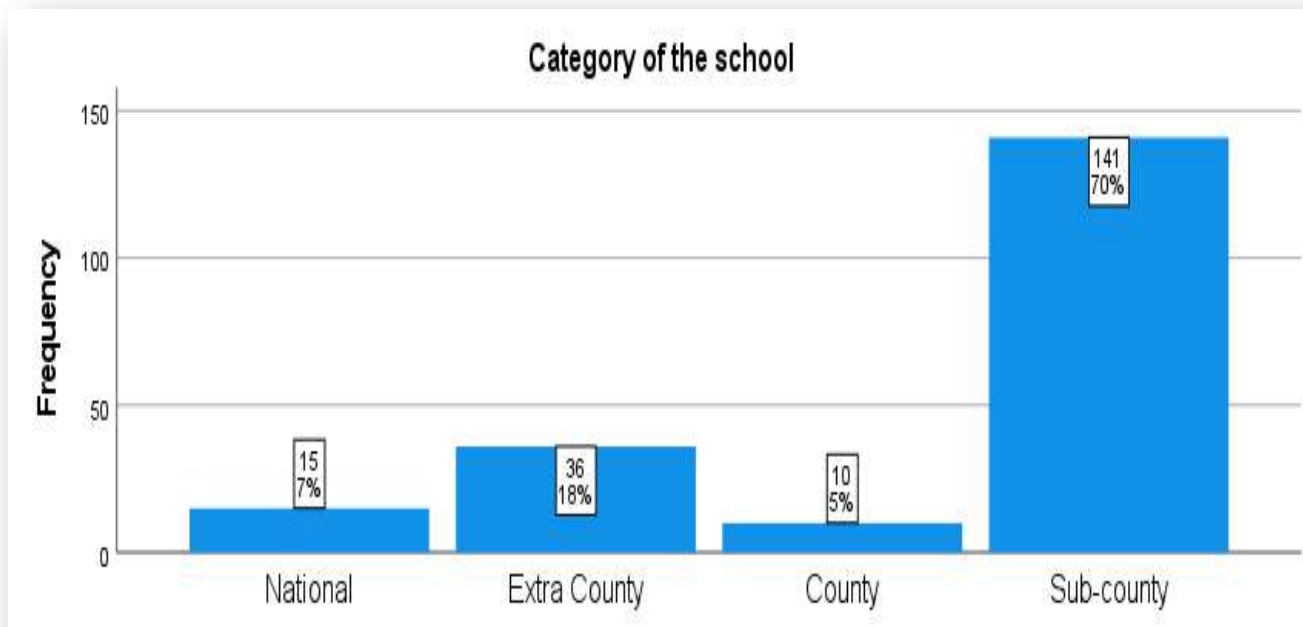


Figure 4
Category of School of the Respondents

The results in Figure 4 above show that 141 (70%) of teachers work in sub-county schools. Those in county schools were 10 (5%), extra county schools were 36 (18%), and 15 (7%) were in national schools. This implies that the majority of teachers teach in lower-class schools, which may lack facilities for online interactions and were more affected by government regulations such as curfews.

4.1.2 Type of School of the Respondents

It was necessary to show the extent of vulnerability to stress comparing different types of schools. There were indicators of effect of Covid 19 related stress on job performance of teachers in different schools. The results in Figure 5 below shows that 90 (45%) are mixed schools, Boys’ schools were 57 (28%) and Girls’ schools were 55 (27%). Educational demographic factors like type of school apart from age structure bring demographic dividends to research findings (UNESCO & UNICEF, 2020).

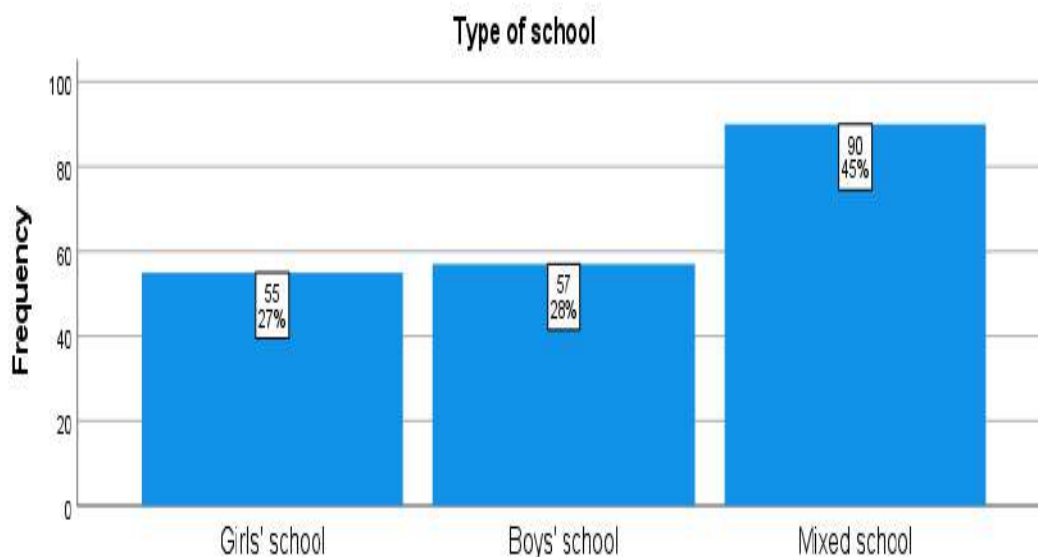


Figure 5
Type of School of the Respondents

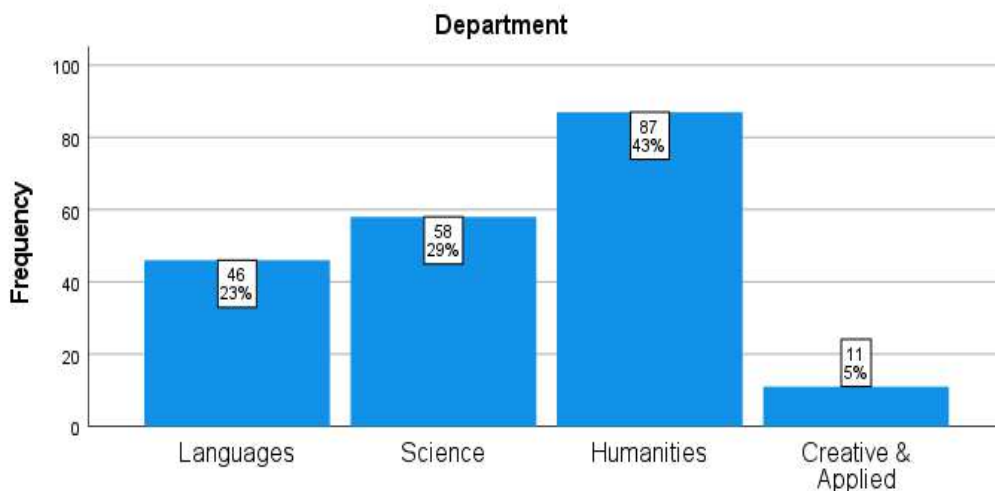


Figure 6
Department of the Respondents

The results in Figure 6 above shows that 87 (43%) of respondents came from Humanities Department, Science Department 58 (29%), Language Department 46 (23%) and Creative & Applied Department 11 (5%). This demographic factor is important for the government to plan for educational systems since teaching subjects in some departments like science require more facilities and training for online classes (UNICEF, 2020)

4.1.3 Psychological effects of Covid-19

The researcher sought to find out the psychological effects of Covid-19 on job performance as presented in Table 2. Psychological indicators included mental health, anxiety, depression, and burnout. The respondents were required to rate their opinions against five statements on a five point likert scale with a score of 1 indicating ‘Strongly Disagree’ and 5 indicating ‘Strongly Agree’. The ratings were analyzed as frequencies, mean, standard deviation (Std), the composite mean and composite standard deviation. The results were presented in Table 2.

Table 2
Psychological Effects of Covid-19

Psychological effects	SA	A	D	SD	Mean	Std
I avoided meeting my students physically for fear of infection	78 (38.6%)	72 (35.6%)	30 (14.9%)	22 (10.9%)	2.08	1.720
I had problems getting closer to my students at classroom level	69 (34.2%)	73 (36.1%)	44 (21.8%)	16 (7.9%)	2.23	2.192
I had no peace of mind due to Covid-19	56 (27.7%)	127 (62.9%)	11 (5.4%)	8 (4%)	1.86	0.687
I was uncomfortable with my mask on during lessons	92 (45.5%)	76 (37.6%)	21 (10.4%)	13 (6.5%)	1.78	0.878
I had interactions online with my students during the pandemic	19 (9.4%)	39 (19.3%)	64 (31.7%)	80 (39.6%)	3.01	0.985
Relaxing was my main challenge	37 (18.3%)	110 (54.5%)	43 (21.3%)	12 (5.9%)	2.15	0.874
I had a laptop or phone to access internet	43 (21.3%)	67 (33.2%)	36 (17.8%)	56 (27.7%)	2.52	1.112
I lacked internet bundles to teach online	37 (18.3%)	59 (29.2%)	59 (29.2%)	47 (23.3%)	2.57	1.04
I conducted home tuition with my students	24 (11.9%)	28 (13.9%)	72 (35.6%)	78 (38.6%)	3.01	1.002
I was confident to teach with my mask on	37 (18.3%)	80 (39.6%)	46 (22.8%)	39 (19.3%)	2.43	1.001
Composite Mean and Standard Deviation					2.364	1.149

The results in the Table 2 above showed that the majority of the respondents 183 (90.6%), agreed that they had no peace of mind due to Covid-19 while 19 (9.4%) disagreed. This showed anxiety as one of the clear indicator of psychosocial stress among teachers (Rubin, 2020). The mean score was 1.86 with a standard deviation of 0.687. The item mean was below the composite mean of 2.364 indicating a negative influence on the composite mean. The standard deviation for the item was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The results in the table above showed that the majority of the respondents 147(72.8%), agreed that relaxing was their main challenge while 55 (27.2%) disagreed. This means that majority of the teachers were anxious and lacked mental peace during the pandemic. The mean score was 2.15 with a standard deviation of 0.874. The item mean was

below the composite mean of 2.364 indicating a negative influence on the composite mean. The standard deviation for the item was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The researcher sought to find out the psychological effects of Covid-19 on job performance, particularly on the remote learning. The result from above table shows that 58 (28.7%) of the respondents agreed that they had interactions online with my students during the pandemic while 144 (71.3%) of the respondents disagreed on the same. The mean score was 3.01 with a standard deviation of 0.985 indicating that majority of the respondents disagree that they had interactions online with my students during the pandemic. The item mean was above the composite mean of 2.364 indicating a positive influence on the composite mean. The standard deviation for the item mean was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable. This finding agree with the findings of (Anger & Plünnecke, 2020) that frontline workers are the most affected in pandemic cases hence limiting their social interactions with other students. Ayoyi (2020) also agrees that Covid-19 related stress also had significant effect on academic staff performance in western Kenyan public universities.

The results show that majority of the respondents 110 (54.5%) agreed that they had a laptop or phone to access internet while 92 (45.5%) disagreed. The mean score was 2.52 with a standard deviation of 1.112. The item mean was above the composite mean of 2.364 indicating a positive influence on the composite mean. The standard deviation for the item mean was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

Furthermore, the results show that 96 (47.5%) of the respondents agree that they lack internet bundles to teach online, and 106 (52.5%) of the respondents disagreed. Odusanya (2020) brought out the importance of internet connectivity for effective online interactions. The mean score was 2.57 with a standard deviation of 1.04 indicating that the majority of the respondents disagreed that they lack internet bundles to teach online. The item mean was above the composite mean of 2.364 indicating a positive influence on the composite mean. The standard deviation for the item mean was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The researcher sought to determine the psychological effects of Covid-19 on job performance, particularly on social distancing. The result from the table above shows that majority of the respondents 150 (74.2%) agreed that they avoided meeting students physically for fear of infection while 52 (25.8%) of the respondents disagreed on the same. UNESCO (2020a) report supported social distancing as one of the coping mechanisms for combating infection. The mean score was 2.08 with a standard deviation of 1.720. The item mean was below the composite mean of 2.364 indicating a negative influence on the composite mean. The standard deviation for the item mean was above the composite standard deviation of 1.149 indicating a wider spread in response for the item than the variable.

On whether teachers conducted home tuition with their students, the result from the table above shows that majority of the respondents 150 (74.2%) disagreed that they conducted home tuition with their students while 52 (25.8%) of the respondents agreed on the same. However, Margaret (2022) emphasized on the importance of home based tuition during the pandemic which most teachers according to this study did not do. The mean score was 3.01 with a standard deviation of 1.002. The item mean was above the composite mean of 2.364 indicating a positive influence on the composite mean. The standard deviation for the item mean was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The results further indicate that the majority of the respondents 142 (70.3%) agreed that they had problems getting closer to students at classroom level while 60 (29.7%) of the respondents disagreed on the same statement. This was probably due to fear of infection that was experienced during the pandemic in Kakamega County (Ayoyi, 2020). The mean score was 2.23 with a standard deviation of 2.192. The item mean was below the composite mean of 2.364 indicating a negative influence on the composite mean. The standard deviation for the item mean was above the composite standard deviation of 1.149 indicating a wider spread in response for the item than the variable.

The researcher sought to determine the psychological effects of Covid-19 on job performance, particularly on wearing masks. The result from the table above shows that majority of the respondents 168 (83.1%) agreed that they were uncomfortable with my mask on during lessons while 34 (16.9%) of the respondents disagreed. Mask wearing as a strategy for mitigating the infection levels therefore must have even increased anxiety levels (Li et al., 2020). The mean score was 1.78 with a standard deviation of 0.878. The item mean was below the composite mean of 2.364 indicating a negative influence on the composite mean. The standard deviation for the item mean was also below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The results further indicate that the majority of the respondents 117 (57.9%) agreed that they were confident to teach with my mask on while 85 (42.1%) of the respondents disagreed. This differed with the findings of Li et al. (2020) concerning the use of masks to reduce infection levels and lower anxiety levels. The mean score was 2.43 with a standard deviation of 1.001. The item mean was above the composite mean of 2.364 indicating a positive influence on the composite mean. The standard deviation for the item mean was also below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

For triangulation of results qualitative data supported quantitative data. After asking the question on whether teachers in schools in his sub county experiences Covid-19 related stress; the SCDE commented as follows:

“Teachers in Kakamega Central Sub County were the most affected by Covid 19 related stress bearing in mind urban environment with many social amenities surrounding the schools in the sub-County”

Such excerpt therefore provides evidence of the fact that Covid-19 affected teachers in different schools in the Sub County. One principal was asked to state some of the mental and emotional stressing experiences that him and teachers experienced and had the following comments to make:

“From where I sit, teachers have had different challenges including boredom, work related anxiety, irritability, fear of infection, loneliness, panic, depression, hampered routine, domestic violence, drug abuse among others.”

This confession from a manager of teachers actually affirms the psychological stress factors that teachers went through during the pandemic hence supporting the analysis that psychological factors had a significant effect on job performance of teachers.

4.1.4 Teacher Job performance

The researcher sought to find out about the effect of Covid-19 on teacher job performance. Indicators included teaching, assessment, curriculum delivery, program supervision, innovation. These were chosen for this discussion because they represent job performance indicators for teachers during the pandemic. The respondents were required to rate their opinions against five statements on a five point Likert scale with a score of **1** indicating ‘Strongly Disagree’ and **5** indicating ‘Strongly Agree’. The ratings were analyzed as frequencies, mean, standard deviation (Std), the composite mean and composite standard deviation. The results were presented in Table 4.3 (**SA**- Strongly Agree, **A**- Agree, **FA**- Fairly Agree, **D**- Disagree, **SD**- Strongly Disagree).

Table 3

Likert on Teacher Job performance

	SA	A	D	SD	Mean	Std
It was difficult to teach many students online	59(29.2%)	84(41.6%)	31(15.3%)	28(13.9%)	2.29	2.388
Mode of teaching lowered my performance	43(21.3%)	92(45.2%)	38(18.8%)	29(14.4%)	2.31	1.135
I gave online exams during the pandemic	29(14.4%)	51(25.2%)	69(34.2%)	53(26.2%)	2.72	1.009
I could not monitor my students progress	39(19.3%)	70(34.7%)	52(25.7%)	41(20.3%)	2.47	1.023
I had a schedule to help my students	24(11.9%)	64(31.7%)	69(34.2%)	45(22.3%)	2.67	0.954
I evaluate my accomplishments at the end of each study session.	32(15.8%)	64(31.7%)	62(30.7%)	44(21.8%)	2.58	1.000
I counseled those who had anxieties during the pandemic	38(18.8%)	88(43.6%)	51(25.2%)	25(12.4%)	2.31	0.918
Covid-19 interfered with my counseling roles	40(19.8%)	76(37.6%)	49(24.3%)	37(18.3%)	2.41	1.005
I came up with new ways to teach	35(17.3%)	94(46.5%)	49(24.3%)	24(11.9%)	2.31	0.895
My creative ways of teaching were limited by Covid-19 restrictions	35(17.3%)	105(52%)	36(17.8%)	26(12.9%)	2.26	0.895
I made lesson plans for my lesson during the pandemic	20(9.9%)	71(35.2%)	61(30.2%)	50(24.8%)	2.80	1.658
studied to prepare for my classes during the pandemic	21(10.4%)	83(41.1%)	61(30.2%)	37(18.3%)	2.57	0.909
Composite Mean and Standard Deviation					2.475	1.149

Firstly, the results in the Table 3 above showed that the majority of the respondents 143 (70.8%), agreed that it was difficult to teach many students online while 59 (29.2%) disagreed. Panisoara and Panisoara (2020) notes that abrupt closure of schools made it very difficult and stressful for teachers hence could not adequately prepare for and deliver lessons. The mean score was 2.29 with a standard deviation of 2.388. The item mean was below the composite mean of 2.475 indicating a negative influence on the composite mean. The standard deviation for the item mean was above the composite standard deviation of 1.149 indicating a wider spread in response for the item than the variable.

The results in the table above showed that the majority of the respondents 135(66.5%) agreed that mode of teaching lowered their performance while 67 (33.2%) disagreed. Madhulika et al (2023) studied self-efficacy and adoption levels among teachers to remote learning and noted that abrupt change was very difficult for teachers to cope up with the challenges of remote learning hence lowering their job performance. The mean score was 2.31 with a standard deviation of 1.135. The item mean was below the composite mean of 2.475 indicating a negative influence on the composite mean. The standard deviation for the item was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The researcher sought to find out whether the respondents gave online exams during the pandemic. The result from above table shows that 80 (39.6%) of the respondents agreed that they gave online exams during the pandemic while 122 (60.4%) of the respondents disagreed on the same. This was probably through social media platforms which provided the only means of communication between teachers and learners during the pandemic (Quezada et al., 2020). The mean score was 2.72 with a standard deviation of 1.009 indicating that majority of the respondents disagree that they gave online exams during the pandemic. The item mean was above the composite mean of 2.475 indicating a positive influence on the composite mean. The standard deviation for the item mean was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The results shows that majority of the respondents 109 (54%) agreed that they could not monitor their students' progress while 93 (46%) disagreed. The mean score was 2.47 with a standard deviation of 1.023. The item mean was below the composite mean of 2.475 indicating a negative influence on the composite mean. The standard deviation for the item mean was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

Furthermore, the results show that 88 (43.6%) of the respondents agree that they had a schedule to help their students and 114 (56.5%) of the respondents disagreed. The mean score was 2.67 with a standard deviation of 0.954 indicating that the majority of the respondents disagreed that they had a schedule to help their students. The item mean was above the composite mean of 2.475 indicating a positive influence on the composite mean. The standard deviation for the item mean was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The researcher sought to determine whether the respondent evaluate their accomplishments at the end of each study session. The result from the table above shows that majority of the respondents 106 (52.5%) disagreed with the statement while 96 (47.5%) of the respondents agreed on the same. The mean score was 2.58 with a standard deviation of 1.000. The item mean was above the composite mean of 2.475 indicating a positive influence on the composite mean. The standard deviation for the item mean was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

On whether teachers counseled those who had anxieties during the pandemic, the result from the table above shows that majority of the respondents 126 (62.4%) agreed that they counseled those who had anxieties during the pandemic while 76 (37.6%) of the respondents disagreed on the same. The mean score was 2.31 with a standard deviation of 0.918. The item mean was below the composite mean of 2.475 indicating a negative influence on the composite mean. The standard deviation for the item mean was below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The results further indicates that the majority of the respondents 116 (57.4%) agreed that the Covid-19 interfered with their counseling roles while 86 (42.6%) of the respondents disagreed on the same statement. The mean score was 2.41 with a standard deviation of 1.005. The item mean was below the composite mean of 2.475 indicating a negative influence on the composite mean. The standard deviation for the item mean was also below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The researcher sought to determine the respondents came up with new ways to teach. The result from the table above shows that majority of the respondents 129 (63.8%) agreed that they came up with new ways to teach while 73 (36.2%) of the respondents disagreed. The mean score was 2.31 with a standard deviation of 0.895. The item mean was below the composite mean of 2.475 indicating a negative influence on the composite mean. The standard deviation for the item mean was also below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

The results further indicates that the majority of the respondents 140 (69.3%) agreed that they were their creative ways of teaching were limited by Covid-19 restrictions while 62 (30.7%) of the respondents disagreed. The mean score was 2.26 with a standard deviation of 0.895. The item mean was below the composite mean of 2.475 indicating a negative influence on the composite mean. The standard deviation for the item mean was also below the composite standard deviation of 1.149 indicating a smaller spread in response for the item than the variable.

On whether they the respondents made lesson plans for their lesson during the pandemic, the results show that 91 (45%) of the respondents agree while 111 (55%) disagreed. The mean score was 2.80 with a standard deviation of 1.658 indicating that majority of the respondents disagreed that they made lesson plans for their lesson during the pandemic. The item mean was above the composite mean of 2.475 indicating a positive influence on the composite mean. The standard deviation for the item mean was above the composite standard deviation of 1.149 indicating a wider spread in response for the item than the variable.

Furthermore, the researcher sought to rate the opinion on whether they studied to prepare for my classes during the pandemic, majority of the respondents 104 (51.5%) agreed with the statement while 98 (48.5%) disagreed. Yoon et al (2015) noted that change of teaching methods from physical to online disrupted normal lesson preparation and delivery. The mean score was 2.57 with a standard deviation of 0.909 which implies that majority of the respondents agreed with the statement. The item mean was above the composite mean of 2.475 indicating a positive influence on the

composite mean. The standard deviation for the item was below the composite standard deviation of 1.149 indicating narrow spread in response for the item than the variable. This may imply that teachers lack training on how to make online preparations for conducting online lessons and by extension how to vary teaching methods.

4.2 Regression Analysis

The researcher carried out a hypothesis testing with purpose of determining the nature of the connection that exists between the independent variable and the dependent variable. The statistical significance of the association was analyzed to determine whether to accept or reject the null hypotheses that were presented for the study. Regression analysis was used to establish the link between the independent variable and the dependent variable.

The objective of this study was to determine the psychological effects of Covid-19 related stress on job performance of teachers. Linear regression test was employed to determine this. The study utilized the following null hypothesis which was tested at 0.05 level of significance.

H₀₁; There is no significant relationship between the psychological effects of Covid-19 related stress and job performance of teachers.

The results are shown in Table 4 (a-c)

Table 4 a

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.694 ^a	.481	.479	11.031	.481	185.632	1	200	.000

a. Predictors: (Constant), Psychological effects of Covid-19

b. Dependent Variable: Job performance

Table 4a shows that the R-squared value is 0.481. The results of this study indicate that psychological effects of Covid-19 was responsible for 48.1% of the variability in job performance. The remaining 51.9 percent can be attributed to other factors that were not explicitly addressed in the study, which focused on examining the relationship between Psychological effects of Covid-19 and job performance.

Table 4b

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22589.668	1	22589.668	185.632	.000 ^b
	Residual	24338.055	200	121.690		
	Total	46927.723	201			

a. Dependent Variable: Job performance

b. Predictors: (Constant), Psychological effects of Covid-19

The findings displayed in Table 4 b indicate that the independent variable, Psychological effects of Covid-19 has a substantial predictive effect or it is significantly useful on explaining Job performance. This conclusion is drawn from the analysis of variance (ANOVA) test conducted at a significance level of 0.05. The significance value of $F(1, 200) = 185.632, p = 0.001$ is below the preset significance limit of 0.05, providing support for this assertion.

Table 4 c: Coefficients^a

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	49.143	6.737		7.295	.000
	Psychological effects of Covid-19	1.406	.103	.694	13.625	.000

a. Dependent Variable: Job performance

The descriptive analysis of the findings indicate that psychological stress factors severely affected teachers job performance, mental health coming out as the severe effect on job performance. From the inferential analysis, the results of the study indicated that psychological effects of Covid-19 had a substantial impact on Job performance, From the findings at 5% level of significance, psychological effect (t-statistic = 13.625, p-value = 0.001 < 0.05) was significant predictor of job performance of teachers. Psychological stress factors therefore had a significant effect on job performance of secondary school teachers during Covid 19 pandemic in Kakamega central sub county.

V. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The study thoroughly investigated the psychological impact of Covid-19 on teachers' job performance in Kakamega Central Sub-County, uncovering substantial insights. The results revealed a significant response rate, with gender disparities favouring male educators, and the majority of participants aged between 30 and 40 years. Educators encountered numerous psychosocial difficulties, such as anxiety, diminished tranquility, challenges in maintaining social distance, and restricted online engagement, which adversely affected their performance. The regression analysis revealed a robust and significant correlation between Covid-19-related psychological stress and diminished job performance, explaining 48.1% of the variability. The inability of teachers to effectively monitor students, administer online assessments, and adapt to novel pedagogical methods exemplified the pandemic's disruption of educational delivery. Qualitative responses corroborated these quantitative findings, underscoring feelings of boredom, fear, and emotional turmoil among educators. The study demonstrates that psychological stressors induced by Covid-19 significantly compromised teachers' mental health and their ability to provide quality education. Confronting these psychosocial challenges is essential for bolstering teachers' resilience and maintaining effective instruction during present and future crises, thus preserving the quality of education in the region.

5.2 Recommendations

Educational institutions should prioritise the psychological factors influencing teachers' job performance during pandemics to improve their adaptation and efficacy. Offering accessible counselling services can assist educators in managing stress, anxiety, and emotional difficulties. Ongoing training in ICT is essential to furnish educators with the competencies required for proficient online teaching, complemented by the availability of digital devices and dependable internet access. Establishing a supportive and resource-abundant environment—by providing essential teaching materials, promoting collaboration, and enacting flexible work policies—can enhance teaching efficacy. Acknowledging educators' contributions and safeguarding their well-being will enhance morale and fortitude. An integrated strategy that incorporates mental health assistance, technological enhancement, and sufficient resources will alleviate adverse psychological effects, resulting in improved performance and adaptability in times of crisis. These strategies are crucial for preserving educational quality and promoting teachers' well-being during pandemics and analogous crises.

REFERENCES

- Abdullah, F. M., Mohammed, A. A., Maatuk, A. M., & Elberkawi, E. K. (2019, December 2). Application of electronic management system in governmental institutions: An empirical study on the Libyan civil registration. In *DATA '19: Proceedings of the Second International Conference on Data Science, E-Learning and Information Systems* (Article 19, pp. 1–5). <https://doi.org/10.1145/3368691.3368710>
- Anger, C., & Plünnecke, A. (2020). Schulische Bildung zu Zeiten der Corona-Krise. *Perspektiven der Wirtschaftspolitik*, 21(4), 353–360. <https://doi.org/10.1515/pwp-2020-0055>
- Asgary, S., Eghbal, M. J., Shahravan, A., Saberi, E., Baghban, A. A., & Parhizkar, A. (2022). [Article title]. *Clinical Oral Investigations*, 26(3), 3287–3297. <https://doi.org/10.1007/s00784-021-04310-y>
- Ayoyi, A. (2020, September 21). Covid-19 in Kakamega county has caused marginalisation and opportunities. *Africa at LSE* [Blog]. <https://blogs.lse.ac.uk/africaatlse/2020/09/21/covid-19-kakamega-county-marginalisation-opportunities/>
- Delgado, B. M. (2020). Influence of COVID-19 confinement on physics learning in engineering and science students. *Journal of Physics: Conference Series*, 1671(1), 012018. <https://doi.org/10.1088/1742-6596/1671/1/012018>
- Gergen, K. J. (2012). *Toward transformation in social knowledge*. Springer Science & Business Media.
- Huang, Y., & Wang, J. (2020). [Article title]. COVID-19 Field Response Group, COVID-19 Laboratory Testing Group. *National Science Review*. <https://academic.oup.com/nsr>
- Kathula, D. N. (2020). Effect of Covid-19 pandemic on the education system in Kenya. *Journal of Education*, 3(6), 31–52.
- Kluge, H. N. P. (2020, March 30). Statement – physical and mental health key to resilience during COVID-19 pandemic. World Health Organization (WHO). <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/statements/statement-physical-and-mental-health-key-to-resilience-during-covid-19-pandemic>
- Lavy, V. (2015). Do differences in schools' instruction time explain international achievement gaps? Evidence from developed and developing countries. *Economic Journal*, 125(588), F397–F424. <https://doi.org/10.1111/eoj.12233>

- Li, W., Yang, Y., Liu, Z. H., Zhao, Y. J., Zhang, Q., & Zhang, L. (2020). Progression of mental health services during the COVID-19 outbreak in China. *International Journal of Biological Sciences*, 16(5), 1732–1738. <https://doi.org/10.7150/ijbs.45120>
- Lin, M. P. (2020). Prevalence of internet addiction during the COVID-19 outbreak and its risk factors among junior high school students in Taiwan. *International Journal of Environmental Research and Public Health*, 17(22), 8547. <https://doi.org/10.3390/ijerph17228547>
- Mackatiani, C. I., & Likoko, S. N. (2022). Coronavirus era: Implications for massive open online courses in basic education institutions in Kenya. *London Journal of Research in Humanities and Social Sciences*, 22(2), 1–18.
- Mackatiani, C. I., Ariemba, A., & Wanjiku, J. (2020). African response to quality education: Comparative perspectives on quality primary education in Kenya. *European Journal of Education Studies*, 6(11), 254–269. <https://doi.org/10.5281/zenodo.3663073>
- Mackatiani, C. I., Likoko, S. N., & Mackatiani, N. I. (2021). *Coronavirus: Implications for E-learning in Kenya: Mitigation of Covid-19*. Eliva Press.
- Margaret, J. (2022). Strengthening pre-service training of healthcare workers on immunisation and effective vaccine management: The experience of Kenya Medical Training College. *Pan African Medical Journal*, 41(47). <https://doi.org/10.11604/pamj.2022.41.47.30502>
- Miles, S. H. (2015). Kaci Hickox: Public health and the politics of fear. *American Journal of Bioethics*, 15(7), 17–19.
- Ngwacho, G. A. (2024). Value-based education incorporation in competency-based curriculum: Recipe for all-inclusive education for enhanced global citizenship. *Journal of the Kenya National Commission for UNESCO*, 4(1), 4–45. <https://doi.org/10.62049/jkncu.v4i1.56>
- Odusanya, G. (2020). COVID-19 outbreak situation in Nigeria and the need for effective engagement of community health workers for epidemic response. *Global Biosecurity*, 2, 56.
- Panisoara, I. O., & Panisoara, G. (2020). Motivation for teaching career [Motivarea Pentru Cariera Didactica, in Romanian]. Bucharest University.
- Quezada, R. L., Talbot, C., & Quezada-Parker, K. B. (2020). From bricks and mortar to remote teaching: A teacher education programme's response to Covid-19. *Journal of Education for Teaching*, 7(8), 56–59. <https://doi.org/10.1080/02607476.2020.1801330>
- Raza, S. A., & Khan, K. A. (2021). Knowledge and innovative factors: How cloud computing improves students' academic performance. *Interactive Technology and Smart Education*, Advance online publication. <https://doi.org/10.1108/ITSE-07-2020-0117>
- Rubin, G. J., & Wessely, S. (2020). The psychological effects of quarantining a city. *BMJ*, 368, m313. <https://doi.org/10.1136/bmj.m313>
- Sahni, H., & Sharma, H. (2020). Role of social media during the COVID-19 pandemic: Beneficial, destructive, or reconstructive? *International Journal of Academic Medicine*, 6(2), 70.
- Sánchez-Teruel, D., Robles-Bello, M. A., & Valencia-Naranjo, N. (2021). Do psychological strengths protect college students confined by COVID-19 to emotional distress? The role of gender. *Personality and Individual Differences*, 171, Article 110507. <https://doi.org/10.1016/j.paid.2020.110507>
- Seymour, C. W., Kennedy, J. N., & Wang, S. (2019). Derivation, validation, and potential treatment implications of novel clinical phenotypes for sepsis. *JAMA*, 321(20), 2003–2017. <https://doi.org/10.1001/jama.2019.5791>
- Sileyew, J. K. (2020). Research design and methodology. *Semantic Scholar, Cyberspace*. <https://doi.org/10.5772/intechopen.85731>
- Srivastava, M., Kumar, V., & Mehrotra, R. (2023). Examining the psychological role of self-efficacy in teachers' adaption to remote learning during the Covid-19 pandemic. *Journal for ReAttach Therapy and Developmental Diversities*, 6(7s), 238–247. <https://jrtd.com/index.php/journal/article/view/787>
- UNESCO, & UNICEF. (2020). COVID-19: Socio-economic impact in Ghana: Impact on Ghana's education (Briefing Note No. 3). https://www.unicef.org/ghana/sites/unicef.org.ghana/files/2020-05/No3_%20UN%20Ghana%20COVID-19%20Briefing%20Note_2020_05_11_FINAL%20v2.pdf
- UNESCO. (2020a). 290 million students out of school due to COVID-19: UNESCO releases first global numbers and mobilizes response. <https://learningenglish.voanews.com/a/unesco-290-million-students-stay-home-due-to-coronavirus/5317148.html>
- UNICEF. (2020). Key messages and actions for COVID-19 prevention and control in schools. <https://www.who.int/publications/m/item/key-messages-and-actions-for-covid-19-prevention-and-control-in-schools>
- Yoon, H. J., In, H., Niles, S. G., Amundson, N. E., Smith, B. A., & Mills, L. (2015). The effects of hope on student engagement, academic performance, and vocational identity. *The Canadian Journal of Career Development*, 14(1), 34–45. <http://cica.org.au/wp-content/uploads/CJCD-Volume-14-1-2015.pdf#page=36>