

Returning to Work: Mental Health and Wellness Post-COVID-19 and Psychoneuroimmunity Preventive Measures among Nairobi County Workforce

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Abstract

Background: The coronavirus disease (COVID-19) pandemic disrupted almost every aspect of daily living and placed unprecedented demands on society. Stress, anxiety, and depression continued to exacerbate substantially amidst the COVID-19 preventive protocols and guidelines. The mental health of individuals deteriorated, contributing to poor health and well-being and less productivity in the workforce, specifically in developing countries. This study aimed to quantify the possible psychological effects and psychoneuroimmunity prevention measures of the workforce returning to work after the COVID-19 pandemic.

Methods: This study employed quantitative methodology to survey employees in Nairobi County. Specifically, a descriptive correlation design and analytical techniques were used to examine employees' mental health after the COVID-19 pandemic and their return to work. The study participants were requested to complete an online questionnaire indicating their attitudes and behaviors pertaining to the COVID-19 pandemic and returning to work practices post-COVID-19 pandemic.

Results: Most participants were single females aged below 40 years whose children were above 16 years of age working in the administrative category. They reported a positive attitude towards quarantine regulations and believed that the psychoneuroimmunity preventive measures were necessary and adequate to stay healthy. Their stress, anxiety, and depression levels were low, probably because they had returned to work for over seven months. However, technical workers had a significant association with anxiety and female gender was correlated to depression. Age, children's age, and gender were significantly associated with Post Traumatic Stress Disorder (PTSD), insomnia, and physical symptoms.

Conclusion: Although the COVID-19 pandemic severely impacted workers' mental health and wellness, preventive measures mitigated these negative impacts and workers thrived post covid era at the workplace.

Keywords: Mental health, wellness, psychoneuroimmunity, preventive measures, Nairobi, post COVID-19, coronavirus disease

Introduction

The World Health Organization (WHO) declared the COVID-19 outbreak a global pandemic and a public health emergency of international concern in March 2020 (WHO, 2019). Consequently, the WHO instituted lockdown procedures, guidelines, and protocols to minimize the spread of the disease worldwide. More than four billion people translating to more than half of the world's population were locked down (Giorgi et al., 2020). By June 8, 2022, almost 531 million confirmed cases of COVID-19 including over 6.3 million deaths, had been reported globally according to the WHO Coronavirus Dashboard (WHO, 2022). This pandemic affected many countries' social and economic parameters because of globalized interconnectedness (McKibbin & Fernando, 2021).

Further, the same researchers continue to attest that the global economy sharply slowed during the COVID-19 period. People were affected physically and psychologically to the extent that some committed suicide (Goyal et al., 2020; Sher, 2020). Others lost their jobs, resulting in psychological distress (Blustein et al., 2020). A drop of more than 24.7 million jobs aggravated the world unemployment rate to 5.6% from 4.9%, along with an increase in suicides of approximately 9570 per year (Kawohl & Nordt, 2020).

The pandemic affected the economic and productive factors of various organizations differently. While some people like the frontliners were structuring how to counter the rise of the coronavirus, others were forced to stay away from their

workplaces due to lockdown policies, resulting in job loss. Some organizations employed smart working that involved working from home, but for some, it meant shedding off several employees. Consequently, some workers experienced severe emotional problems during this predicament (Kawohl & Nordt, 2020). Some scholars have hypothesized that individuals who suffer from mental health issues, and those who do not, could be at high risk, especially those laid off from their workstations (Rajkumar, 2020).

Returning to work announcements as the coronavirus pandemic subsided after approximately two years became good news to many. However, the high prevalence and incidence of the coronavirus associated with severe illness and death still hang on the minds of the workforce returning to work. These stimulated a lot of uncertainty and fear of the unknown, as they dreaded what may become of them as they resumed their workstations (Giorgi, 2020). In some organizations, work-related and organizational regulations and policies have been implemented to ensure the safety of workers. These strategies are crucial in exacerbating and moderating the pandemic's impact on individual mental health. Some organizations have put in place return-to-work safety protocols, such as frequent washing of hands, wearing masks, and social distancing to mitigate the spread of the virus.

Research suggests that about 80% of individuals who contracted the coronavirus recovered without being

admitted to a hospital (WHO, 2020), but fear still grips many people because of the dreadful outcome of the pandemic. People who felt vulnerable because they were suffering from chronic diseases or those taking care of vulnerable people, such as the elderly and small children, feared the most. This was so because scholars have revealed that underlying conditions like HIV/AIDs, respiratory diseases, obesity, and cardiovascular diseases may exacerbate the severity of covid 19, leading to premature death (Haybar et al., 2020; Liu et al., 2020). The younger generation was also scared because covid 19 was not a respecter of persons. Even those below 50 years were negatively impacted as they presented with symptoms like viral pneumonia and severe respiratory complications that resulted in death in some instances (Liu et al., 2020).

It is clear from the literature that the coronavirus undermined not only the physical health but also the psychological health of many individuals. Hence, it is necessary to analyze the psychological effects of the pandemic and its consequences post covid as people return to work. Since people returned to the workplace, little research has been conducted on the impact of individual mental health that would arise after the coronavirus phase. Attention should be paid to minimizing the risks of finding people in another “pandemic” worldwide, which may result in possible mental health problems. Scholars have predicted that if the negative impacts of individual health post COVID-19 are

not effectively addressed, there is a high risk of significant poor mental health for the whole population (Gunnell et al., 2020; Sinyor et al., 2021). The same scholars continue to say that evidence-based approaches may prove beneficial in mitigating the negative consequences of the coronavirus pandemic on individual mental health.

Literature review

Demographic Profile

Demographic profiles are essential variables that explain a phenomenon and provide insight into a situation. Researchers have hypothesized that gender, age, number of people at the household level, type of work, and physical health may impact an individual’s overall health status, specifically during the COVID-19 era. For example, a study in Hong Kong that explored the demographic profile of COVID-19 cases considering migration history revealed that younger people were highly affected (Cruz et al., 2020). In particular, the results indicated that COVID-19 positive cases were more concentrated among young individuals aged 15-24 years. This finding is unique, contrary to other worldwide results that show an older age profile is vulnerable to the pandemic (Shahid et al., 2020; Nanda et al., Vura, & Gravenstein, 2020). Although Hong Kong has a rapidly aging population structure and density, the younger generation, especially women, is more adversely affected (Cruz, 2020). On the other hand, a similar study conducted in Northern India also showed that young males were more adversely affected by the

COVID-19 pandemic than young women (Jamil et al., 2021). In addition, the same scholars indicated that senior citizens aged 60 years and above with common comorbidities, such as diabetes and hypertension, were at an increased risk of COVID-19 progression to death.

Quarantine and Lockdown

The devastating impact of COVID-19 had to be compacted. The WHO provided strict instructions and guidelines that were necessary to control and mitigate the pandemic's infectivity (WHO, 2019). Movements were restricted, and quarantine and lockdowns were instituted to minimize the spread. In addition, in the context of COVID-19 management, coalesced restrictions and measurements that included compulsory wearing of masks, physical distancing, and patient tracking proved helpful in the successful control of COVID-19 spreading (Prabakaran et al., 2021; Shah et al., 2020). On the other hand, individuals who remained in quarantine and lockdown for an extended period reported increased negative psychological and behavioral tendencies such as anxiety, depression, stress, and irritability over time (Panda et al., 2021).

Psychoneuroimmunity Prevention Measures

Apart from the WHO preventive measures, some people became skeptical and were more careful to institute neuroimmune measures, even after the pandemic, to ensure they were healthy. Always wearing masks, frequent hand washing, proper ventilation, and avoiding

sharing utensils became the norm (Tan et al., 2020). Studies have shown that such preventive measures have successfully reduced the spread of COVID-19 significantly globally (Cruz, 2020; Prabakaran et al., 2021; Shah et al., 2020).

Mental Health Status

The COVID-19 pandemic has been associated with poor mental health outcomes. For example, scholars have hypothesized that several psychological reactions, including maladaptive behaviors like substance abuse, emotional disturbances, and distrustful responses, were common during COVID-19 (Cullen et al., 2020; Pfefferbaum & North, 2020). Everyone is vulnerable to public health problems like pandemics; however, those suffering from psychological issues are at an increased risk. According to Pfefferbaum and North (2020), situations such as infringement of personal freedom, financial losses, insecurity, confusion, emotional isolation, and stigmatization may result in emotional distress and psychiatric tendencies. Such situations have occurred in the context of COVID-19. Substantial economic losses, work and school closures, and inadequate resources during the pandemic have translated into distress and psychiatric conditions, especially in developing countries (Jamil et al., 2021).

A study in Pakistan that investigated psychological problems in the general population revealed that 52% of the participants reported experiencing mild to severe levels of depression, anxiety, and stress (33%, 40%, and 27%), respectively.

(Riaz et al., 2021). The same scholars suggest that it is vital to regulate cognitive emotions because they significantly predict psychological problems. Moreover, it has been proved that 21% of the psychological problems were alienated if one is emotionally healthy (Riaz et al., 2021). This implies that post-traumatic stress disorder, insomnia, depression, anxiety, stress, and psychiatric symptoms could be minimized when people return to work through strict public health measures. On the contrary, the quarantine, lockdown and other regulations resulted in poor mental health outcomes in various regions (Jamil et al., 2021; O’Sullivan, Rahamathulla, & Pawar, 2020).

Research Questions

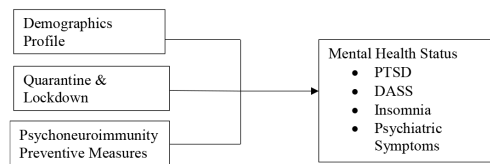
1. What are the respondents’ sociodemographic, occupational, and physical health characteristics?
2. What are the respondents’ views on the strict quarantine and lockdown restrictions before returning to work?
3. What are respondents’ views on psychoneuroimmunity prevention measures when returning to work after the COVID-19 pandemic?
4. What is the immediate mental health status of the workforce that returned to work after the COVID-19 pandemic in terms of
 - a. Post-Traumatic Stress Disorder

- b. Depression, Anxiety, and Stress
 - c. Insomnia
 - d. Psychiatric Symptoms
5. Is there any causal relationship between demographics, quarantine and lockdown, psychoneuroimmunity prevention measures, and the immediate mental health status of the workforce after the COVID-19 pandemic?

Conceptual Framework

Figure 1 shows the independent and dependent variables: the demographic profile, quarantine and lockdown, and psychoneuroimmunity measures were the independent variables, while mental health status was the dependent variable. The relationship between each independent variable and the dependent variable was examined and the relationship between all the independent variables combined and the dependent variable was also examined.

Figure 1
Conceptual Framework



Methodology

The last two years have been challenging because of the COVID-19 pandemic, but for numerous months,

governments have allowed people to return to their workstations after the combat of the COVID-19 pandemic. Members of the workforce were invited to participate in this study to help describe the situation, especially their mental health after COVID-19. The study employed a quantitative methodology in which a survey was conducted consisting of 110 participants. Using a descriptive correlation design and analytical techniques, the data gathered were analyzed to help explain the psychological impact on the workforce who had returned to work after the pandemic. An online questionnaire was administered to over 160 residents of Nairobi County, but only 110 fully answered questionnaires were used.

All workers aged 18 years and above were invited, except frontline workers, such as healthcare personnel, the clergy, and those who provided essential services to participate. Additionally, employees who did not have access to the Internet and those not knowledgeable about using Google Forms were excluded. The questionnaire had four major sections: the first section was on the demographic profile, and the rest was on health status. Several measuring instruments were used, including the Impact of Event Scale-Revised (IES-R), which measures psychological impact; the Depression, Anxiety, and Stress Scale (DASS-21), which measures individual mental health status; self-rating physical health; The Insomnia Severity Index (ISI), which measures the quality of sleep; psychoneuroimmunity preventive

measures; and other psychiatric symptom indicators. The qualitative interpretation of the instruments is that low scores on the IES-R imply normal health, whereas high scores imply a diagnosis of Post-Traumatic Stress Disorder (PTSD).

Similarly, low ISI scores indicate no clinically significant insomnia, whereas high scores indicate severe clinical insomnia. The items used to develop the questionnaire were established by Wang et al. (2020a) and Hao (2020) who authenticated their psychometric properties after their scholarly work in China. These instruments have been previously validated (Ho et al., 2019; Le et al., 2019; Quek et al., 2018) and are freely available online.

To answer research questions one to five, descriptive statistics were used. The means, standard deviations, frequencies, and percentages were calculated. In addition, inferential statistics in the form of a t-test and Pearson's Chi-square test were used to examine the differences between groups. To answer research question six, multiple linear regression was performed to examine the relationship between the outcome variables and the demographic profile and psychoneuroimmunity preventive measure variables. The Statistical Package for the Social Sciences (SPSS), was used for the analysis of statistical data with 5% significance level.

Ethical considerations were taken into place as no one was expected to write their names on the forms to ensure anonymity. The participants were requested to sign a consent form before completing the

questionnaire. They were also informed that participation was voluntary and that they could withdraw at any point without penalty. The study was limited to Kajiado North County residents who returned to their workstations after the COVID-19 pandemic. In addition, the number of respondents is low compared to the large population in the county, which may affect the outcome of the study; hence, caution should be exercised if generalized.

Results

The results are presented in accordance with the research questions.

Participants' Sociodemographic, Occupational, and Physical Health Characteristics

Out of 160 questionnaires circulated to eligible participants, 110 were filled, returned and used in the analysis. This translated into a response rate of 68.75%. Of these, 61% were married, and 39% were either single, divorced, or separated. Most participants were young adults aged 40 years and below, representing 61%, while 39% were more than 40 years of age. The majority were female (62.7%), and their households had to 3-5 members. Almost half of the participants (49.1%) had adolescent children aged 16 years and above. For occupational characteristics, 55.5% work in managerial positions including administration and executives and 44.5% work as technical staff and other departments. Regarding physical health characteristics, 67.3% of the participants rated their health as normal and 29% rated their health as good with no or minimum physical symptoms

(78.2%) and without any chronic medical condition (89.1%). Moreover, the majority (65.5%) had returned to their workplaces for more than seven months, while 26.3% had only returned for less than six months. However, about 8.2% were still working from home despite the government's approval for workers to return to work.

Respondents' Views on Strict Quarantine and Lockdown Restrictions before Returning to Work

Descriptive statistics were used to extract means and standard deviations. The Cronbach's Alpha for the six questions was .67. The mean was 2.8 (SD .64) on a scale of 4. Overall, the participants had a positive attitude towards strict quarantine and lockdown. Specifically, they felt that the closure of schools and businesses (mean 3.06; SD .99), quarantine, and lockdown (mean 2.89; SD .94) were useful in stopping the spread of the coronavirus. To some, returning to work posed a minor threat (mean 2.05; SD .88). However, they had confidence in returning to work because their organizations had taken preventive measures to ensure that the workplace was safe, as hygiene had improved (mean 3.0; SD .94) and that they cared about their health concerns (mean 3.2; SD.91).

These findings are consistent with those of Shah et al. (2020), who indicated that quarantine during the COVID-19 pandemic was beneficial. Other scholars have also hypothesized that isolation and quarantine restrictions are necessary and mandatory to curb the spread of

COVID-19 and safeguard other people's lives (Prabakaran et al., 2020; Saqib et al., 2020). More studies have been suggested to measure the sustainability of COVID-19 preventive measures post-COVID-19 (Liu et al., 2020). The following table highlights these findings.

Table 1

Quarantine and Lockdown Restrictions before Returning to Work.

| | N | Minimum | Maximum | Mean | Std. Dev |
|--|-----|---------|---------|--------|----------|
| Do you think the strict quarantine and lockdown was 3 to stop the spread of the virus? | 110 | 1.00 | 4.00 | 2.8909 | .94185 |
| Do you think the closure of the workplace was 3 to stop the spread of COVID-19? | 110 | 1.00 | 4.00 | 3.0636 | .99795 |
| Do you think returning to work was a threat to your life during the COVID-19 pandemic? | 110 | 1.00 | 4.00 | 2.0545 | .88656 |
| Do you think workplace hygiene has improved after the COVID-19 outbreak? | 110 | 1.00 | 4.00 | 3.0182 | .94802 |
| Do you think your company cares and concerns about your health? | 110 | 1.00 | 4.00 | 3.1818 | .91051 |
| Attitude quarantine | 110 | 1.00 | 4.00 | 2.8418 | .63944 |
| Valid N (listwise) | 110 | | | | |

Respondents' Views on Psychoneuroimmunity Prevention Measures when Returning to Work After COVID-19 Pandemic

Descriptive statistics such as means and standard deviations were calculated. The Cronbach's Alpha for the seven questions was .66. The mean was 3.0 and a Standard Deviation of .46. This implies that the participants felt that these psychoneuroimmunity preventive measures were necessary and adequate to stay healthy and keep covid at bay. It was clear that most organizations invested in good ventilation in the workplace (mean, 3.0; SD, .46). Practices such as proper hand washing generally, touching contaminated objects, and covering the mouth when coughing or sneezing were practiced most times. However, wearing

a mask in the presence or absence of symptoms, washing hands immediately after coughing or sneezing, and avoiding sharing utensils during meals were rarely practiced.

The findings indicated that preventive measures played a protective role, contrary to the findings of Kim and Su (2020), who indicated that institutionalized or isolated patients in a closed unit were more vulnerable to contracting COVID-19 disease if proper precautions were not taken. However, the findings agree with other scholars who suggested that simple hygienic measures significantly prevented the spread of the COVID-19 pandemic (Gunnell et al., 2020; Haybar et al., 2020; Mckibbin & Fernando, 2021).

Table 2***Psychoneuroimmunity Prevention Measures***

| | N | Minimum | Maximum | Mean | Std. Dev |
|--|-----|---------|---------|--------|----------|
| Do you avoid sharing utensils (e.g., plates, cups, spoons) during meals | 110 | 1.00 | 4.00 | 2.5636 | 1.11312 |
| How often do you practice proper hand-washing with soap and water | 110 | 1.00 | 4.00 | 3.3091 | .66007 |
| Do you wash your hands immediately after coughing, rubbing the nose, or sneezing | 110 | 1.00 | 4.00 | 2.5364 | .84242 |
| Do you wash your hands after touching a contaminated object | 110 | 1.00 | 4.00 | 3.1818 | .75640 |
| Do you cover your mouth when coughing or sneezing | 110 | 1.00 | 4.00 | 3.6182 | .60551 |
| Do you wear a face mask regardless of the presence or absence of symptoms | 110 | 1.00 | 4.00 | 2.4000 | .82618 |
| Do you have good ventilation in the workplace | 110 | 1.00 | 4.00 | 3.4182 | .73425 |
| Psychoneuroimmunity | 110 | 1.00 | 4.00 | 3.0039 | .45771 |
| Valid N (listwise) | 110 | | | | |

Mental Health Status of the Workforce as they Returned to Work

Descriptive statistics were also calculated. The Cronbach's alpha for the 22 questions was .93. Analyzing Post Traumatic Stress Disorder (PTSD) variable, the mean derived was 2.0 (SD .77) on a scale of five. Generally, participants experienced a small number of PTSD symptoms, indicating low levels of PTSD. People were watchful and on guard, did their best to avoid COVID-19, and stayed away from reminders of the pandemic. Moreover, they avoided getting upset when they were taught about it. Such behaviors were common to people recovering from the negative and detrimental impacts of COVID-19. On the other hand, a few individuals dreamed of COVID-19 or experienced physical reactions such as sweating, trouble breathing, nausea, or pounding heart whenever they remembered COVID-19.

Analysis of depression, anxiety, and stress (DASS 21) variable whose Cronbach's alpha was .94, the means and standard deviations were as follows; Depression 1.3 (SD .54), Anxiety 1.3 (SD .45), Stress 1.3 (SD .50) on a scale of four. This means that participants reported experiencing stress, anxiety, and depression sometimes or, to some degree, translating to low levels. In particular, some found it difficult to wind down or relax to a considerable degree. However, this was expected for people recovering from difficult situations such as the COVID-19 pandemic. Some became scared without a good reason and worried about situations that would make them panic. Moreover, some of the time they were in low spirit; they did not experience positive feelings and lacked the initiative to do some of the things they routinely did.

The insomnia variable set of seven questions had a Cronbach Alpha of .70. The mean was 1.9 (SD .65) on a scale of five. This indicated that participants experienced mild insomnia due to slight difficulty falling and staying asleep. Consequently, they were slightly worried about their current sleep pattern as they considered it an interference with their daily functioning to some extent. They felt that their sleep problems sometimes impaired their quality of life, which was slightly noticeable to others around them. However, they were generally moderately satisfied with their current sleep pattern.

Previous studies have shown that mental health issues increased during the COVID-19 pandemic. People experienced psychological distress (Blustein et al., 2020), anxiety (Panda et al., 2021), and mild psychiatric tendencies (Jamil et al., 2021; Pfefferbaum & North, 2020; Riaz et al., 2021).

Table 3

Mental Health Status – Post Traumatic Stress Disorder (PTSD)

| | N | Mean | Std/D |
|--|-----|---------------|---------------|
| Difficulty falling asleep | 110 | 1.7000 | .92419 |
| Difficulty staying asleep | 110 | 1.6182 | .90849 |
| Problems waking up early | 110 | 2.0545 | 1.20272 |
| How satisfied/dissatisfied are you with your current sleep pattern? | 110 | 3.1273 | 1.22743 |
| How noticeable to others do you think your sleep problem is in terms of impairing the quality of your life? | 110 | 1.7636 | .97611 |
| How worried/distressed are you about your current sleep problem? | 110 | 1.7364 | 1.05515 |
| To what extent do you consider your sleep problem to interfere with your daily functioning (e.g., daytime fatigue, mood, ability to function at work/daily chores, concentration, memory, mood, etc.) currently? | 110 | 1.9909 | 1.21531 |
| Insomnia | 110 | 1.9987 | .65092 |
| Valid N (listwise) | 110 | | |

The participants reported low levels of psychiatric symptoms at a mean of 1.3 (SD =.37) on a scale of one to four. The set of nine questions had a Cronbach's alpha of .76. This implies that the participants were resilient and ready to return to work post-COVID-19. This may be because they had social support during the COVID-19 quarantine and lockdown, had a positive attitude, and embraced the preventive measures necessary to ensure they kept COVID-19 at bay. Particularly, those with young children were worried that the pandemic might negatively affect their health and that of their children. They also expressed concern that they were stigmatized and discriminated against when diagnosed with COVID-19 and could not like to experience it again. On the other hand, they did not experience any auditory hallucinations, nor did they have any suicidal ideation or intention to hurt others. However, a few of them expressed outbursts of anger and impulsivity and sometimes paralyzed ideas whenever they were taught what they experienced during the pandemic.

The results of this study indicated that participants experienced low levels of mental issues, contrary to other scholars who suggested that people who experienced COVID-19 in one way or another reported mental disturbances (Pfefferbaum & North, 2020; Rajkumar, 2020). In addition, Giorgi et al. (2020)

support the findings that the COVID-19 pandemic has seriously altered the working environment, precipitating mental health problems.

Table 4
Mental Health Status – Psychiatric Symptom

| | N | Minimum | Maximum | Mean | Std. Dev |
|---|-----|---------|---------|---------------|---------------|
| Worried about own physical health | 110 | 1.00 | 4.00 | 1.7364 | .77433 |
| Auditory hallucination | 110 | 1.00 | 4.00 | 1.1182 | .40027 |
| Paralyzed idea | 110 | 1.00 | 4.00 | 1.2273 | .56923 |
| Anger and impulsivity | 110 | 1.00 | 5.00 | 1.3545 | .76129 |
| Alcohol use | 110 | 1.00 | 3.00 | 1.1818 | .51011 |
| Suicidal Ideation | 110 | 1.00 | 2.00 | 1.0636 | .24522 |
| The intention of hurting others | 110 | 1.00 | 4.00 | 1.1091 | .41410 |
| Worrying about young children | 110 | 1.00 | 4.00 | 1.8273 | .93710 |
| Experience of discrimination during COVID-19 pandemic | 110 | 1.00 | 4.00 | 1.4909 | .84316 |
| Psychiatry | 110 | 1.00 | 3.11 | 1.3455 | .37907 |
| Valid N (listwise) | 110 | | | | |

The last research question sought to examine whether there is a causal relationship between demographics, quarantine and lockdown, psychoneuroimmunity prevention measures, and the immediate mental health status of the workforce after the COVID-19 pandemic. Multiple linear regression analysis was performed. The findings suggest that demographic profile variables were significantly related to immediate mental health status, particularly PTSD ($p = 0.042$) and insomnia ($p = 0.000$). Both genders aged above 40 years experienced PTSD. Moreover, those experiencing physical symptoms associated with COVID-19 also reported significantly higher IES-R scores ($p = 0.028$) and IES scores ($p = 0.000$) than those who did not. This implies that they did not fully recover

from the adverse effects of the pandemic, which may have resulted in poor sleep patterns compared to their counterparts.

In contrast, those who returned to work for a more extended period exhibited low levels of PTSD. In addition, irrespective of the type of work done, marital status, number of children in the family, or clinical condition, all the respondents reported low levels of stress, anxiety, and depression. Moreover, they did not exhibit any psychiatric symptoms. This implies that they were resilient, able to manage their life stressors during and after the COVID-19 pandemic and able to thrive, probably because of the support they received from significant others in their lives.

Table 5.

Demographic Profile Variables Effect on Mental Health Status

| | Adjusted R Square | Mean Square | Significance |
|-------------|-------------------|-------------|--------------|
| PTSD | 0.071 | 1.212 | 0.042 |
| Stress | 0.003 | 0.246 | 0.468 |
| Anxiety | 0.038 | 0.326 | 0.138 |
| Depression | 0.000 | 0.296 | 0.438 |
| Insomnia | 0.169 | 1.469 | 0.000 |
| Psychiatric | 0.005 | 0.154 | 0.386 |

These results are similar to those of previous studies that indicated that age, gender, socioeconomic status, etc., impact mental health. Cruz et al. (2020) suggest that those affected most by the pandemic were aged 15-24. Other scholars have revealed that older individuals with comorbid diseases suffered from emotional and mental health illnesses during the pandemic (Jamil et al., 2021;

Nanda et al., 2020; Shahid et al., 2020). The findings contradict other studies that indicated that emotional and mental health problems continue to increase post covid (Kawohi & Nordt, 2020). The results revealed low levels of stress, anxiety, depression, and psychiatric tendencies.

Table 6.
Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|-------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.491 | .545 | | 4.574 | .000 |
| | Age | .001 | .075 | .001 | .007 | .994 |
| | Gender | -.396 | .151 | -.249 | -2.616 | .010 |
| | Child's age | .002 | .088 | .003 | .026 | .980 |
| | Work category | -.096 | .146 | -.062 | -.652 | .516 |
| | Return work when | -.147 | .074 | -.188 | -1.987 | .050 |
| | Physical symptom | .394 | .176 | .211 | 2.234 | .028 |
| | Chronic condition | .194 | .240 | .079 | .808 | .421 |

Dependent Variable: PTSD

These findings are similar to those of Kawohl and Nordt (2020), who indicated that COVID-19 cut across all genders as it affected both males and females. In addition, it was clear that the participants exhibited physical symptoms similar to those reported in previous studies (Jamil et al., 2021). Furthermore, Blustein et al. (2020) affirmed that mental health issues may result in physical symptoms and need

to be addressed to avoid serious mental issues. According to the current study, it is true that people lost sleep due to anxiety associated with the COVID-19 pandemic (Cullen et al., 2020).

Table 7
Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---------------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| (Constant) | 1.803 | .434 | | 4.159 | .000 |
| Age | -.147 | .060 | -.240 | -2.451 | .016 |
| Gender | -.199 | .120 | -.149 | -1.653 | .101 |
| Kidsage | .016 | .070 | .022 | .227 | .821 |
| Work category | -.035 | .117 | -.027 | -.302 | .763 |
| When return to work | -.041 | .059 | -.063 | -.703 | .484 |
| Physical Symptoms | .609 | .140 | .388 | 4.336 | .000 |
| Chronic condition | .198 | .191 | .095 | 1.033 | .304 |

Dependent Variable: insomnia

Both psychoneuroimmunity preventive measures and views towards quarantine and lockdown significantly affected the immediate mental health of respondents. The respondents who had a positive attitude towards quarantine and lockdown believed that the measures taken were sufficient and helpful in curbing the spread of COVID-19 and hence scored low on the ISE-R ($p = 0.000$). They also reported experiencing low anxiety levels ($p = 0.003$), probably because they felt that the lockdowns combined with psychoneuroimmunity preventive measures that included adhering to WHO

guidelines and protocols could guarantee their health and safety. Although quarantine and lockdown effectively prevented the spread of COVID-19, some people were distressed and unable to sleep well. Participants reported high ISI scores ($p = 0.001$) and expressed some psychiatric behaviors ($p = 0.000$). Table 8 highlights the findings of the study.

Table 8

Attitude Towards Quarantine And Lockdown, Psychoneuroimmunity Prevention Measures and immediate Mental Health Status

| | Adjusted R Square | Mean Square | Significance |
|-------------|-------------------|-------------|--------------|
| PTSD | 0.129 | 4.726 | 0.000 |
| Stress | 0.049 | 0.690 | 0.067 |
| Anxiety | 0.074 | 1.038 | 0.006 |
| Depression | 0.017 | 0.570 | 0.146 |
| Insomnia | 0.084 | 2.334 | 0.003 |
| Psychiatric | 0.165 | 1.409 | 0.000 |

Table 9***Coefficients PTSD, Anxiety, Insomnia, and Psychiatric Measures***

| | Model | Unstandardized Coefficients | | Standardized Coefficients | | t | Sig. |
|-------------|---------------------|-----------------------------|------------|---------------------------|--|--------|------|
| | | B | Std. Error | Beta | | | |
| PTSD | Constant | .945 | .494 | | | 1.915 | .058 |
| | Quarantine/Lockdown | .476 | .113 | .394 | | 4.215 | .000 |
| | psychoneuroimmunity | -.098 | .158 | -.058 | | -.620 | .537 |
| Anxiety | Constant | 1.280 | .301 | | | 4.250 | .000 |
| | Quarantine/Lockdown | .211 | .069 | .295 | | 3.066 | .003 |
| | psychoneuroimmunity | -.192 | .096 | -.192 | | -1.993 | .049 |
| Insomnia | Constant | 1.795 | .426 | | | 4.209 | .000 |
| | Quarantine/Lockdown | .328 | .098 | .323 | | 3.366 | .001 |
| | psychoneuroimmunity | -.243 | .136 | -.171 | | -1.781 | .078 |
| Psychiatric | Constant | 1.038 | .237 | | | 4.377 | .000 |
| | Quarantine/Lockdown | .261 | .054 | .441 | | 4.817 | .000 |
| | psychoneuroimmunity | -.145 | .076 | -.175 | | -1.911 | .059 |

This study agrees with a WHO (2019) article stating that strict WHO guidelines and protocols were necessary to mitigate the spread of COVID-19. Moreover, quarantine and lockdown measures successfully minimized the spread of COVID-19 (Prabakaran et al., 2021; Shah et al., 2020). Previous literature affirms that several people reported mental problems during the pandemic, such as PTSD, anxiety, insomnia, and psychiatric symptoms, notwithstanding their age or gender (Cullen et al., 2020; Nanda et al., 2020; Shahid et al., 2020).

Conclusion

The COVID-19 pandemic severely impacted mental health and well-being globally. However, the pandemic seems to decline in the African region, specifically in the Kenyan context. This implies that people are resilient, ready to return to work, and able to thrive in the post-covid era. The prevalence of anxiety,

depression, and stress is slowly declining especially for those who have been to work for more extended period after covid. The preventive measures taken to curb the spread proved successful. These may be attributed to family support and community togetherness which may be a protective factor against mental health.

Recommendations

1. Develop awareness programs to encourage and educate people on the importance of continuing to observe recommended preventive measures, including physical/social distancing, ventilation of indoor spaces, covering coughs and sneezes, and washing hands.
2. Recommended use of face masks and covering in public settings to minimize the risk of any transmission
3. Programs on PTSD as the prevalence is still high to avoid

another 'pandemic' – relaxation techniques are variable tools protect health

4. Health programs, such as exercise programs, games, and free or affordable psychological services.
5. Minimize sedentary behaviors, increase the level of physical activity.

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