

Exploration of Mental Health and Well-Being of Healthcare Professionals During the COVID-19 Pandemic

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ABSTRACT

Introduction: In response to curbing the spread of SARS-CoV-2, healthcare professionals (HCPs) encounter a multitude of mental stresses. The primary intent was to explore the mental health and well-being experienced by HCPs in Ekiti State, Nigeria, amid the COVID-19 pandemic. **Methods:** Data were analyzed using inductive qualitative methodology. The study was undertaken among HCPs in two teaching hospitals in Ekiti State during the SARS-CoV-2 outbreak. Convenience sampling techniques were employed to select participants for this study. A comprehensive interview ranging from 30 to 50 minutes per participant was administered to a sample of 14 HCPs (doctors and nurses) representing various departments within the hospital. The interviews were conducted between March 2020 and May 2020. COVID-19 stressful situations, the physiological consequences of stress, personality, disposition, stress management techniques, and coping mechanisms were evaluated. **Results:** The study outcomes indicate that a significant proportion of HCPs currently face mental well-being. The primary sources of stress identified in this study included heavy workloads and pressure from social media platforms and government agencies. The outbreak crisis significantly influenced on their lives and work, with the fear of catching diseases and their anxiety about spreading infections to their loved ones. **Conclusions:** HCPs require a secure working environment during the current circumstances, along with an enhanced support system to alleviate stressors. This study contributes to a significant proportion of HCPs currently facing stress.

Keywords: pandemic, healthcare professionals, COVID-19, well-being, mental health

INTRODUCTION

In December 2019, the World Health Organization reported the outbreak of SARS-CoV-2 (COVID-19). [1,2] The occurrence of this pandemic has been unforeseen, with widespread and international transmission resulting in a substantial loss of life and significant social and economic upheaval. [1,2] Consequently, the global health crisis caused by the pandemic presented healthcare professionals (HCPs) with a multitude of difficulties, including escalated patient caseloads, augmented work demands, and the implementation of novel protocols for COVID-19. [3]

One projected impact of the pandemic on HCPs pertains to psychological well-being. During the pandemic mitigation period, HCPs encountered the challenge of managing their responsibilities amidst substantial physical and emotional strain, thereby exposing themselves to the potential hazards of contracting the infection. One detrimental consequence of the pandemic is a decline in the mental well-being of HCPs. The mental health challenges experienced by HCPs encompass more than just stress and negative emotions, including depressive symptoms, insomnia, anxiety, and other related conditions.^[3,4] Mental health, well-being, and happiness support pose a significant challenge for HCPs

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in the healthcare sector and are attributed primarily to the demanding nature of healthcare work, which necessitates unwavering dedication and commitment, even within prestigious specialized medical facilities. The substantial number of patients seeking care further exacerbates this challenge. The prevailing stressors encompass the ramifications of the ongoing pandemic that frequently surpass our capacity to manage, such as grappling with the demise of patients whose medical interventions have proven ineffective, experiencing a sense of powerlessness, and facing the potential to transmit the virus to loved ones.

The African region ranks sixth among the regions recognized by the World Health Organization in terms of the extent. [5] Nigeria, like other African nations, has experienced significant pandemic-related impacts, with 188,880 confirmed cases and 2288 deaths as of August 26, 2021. [5] Nigeria was identified as the fifth most impacted African nation and the seventh most impacted nation worldwide. [5]

Moreover, the presence of COVID-19 has been documented in all Nigerian states. However, it is noteworthy that Ekiti State remained a significant outbreak epicenter. HCPs working in Ekiti State University Teaching Hospital (EKSUTH) and Federal Teaching Hospital, Ido-Ekiti (FETHI) face significant challenges because of the overwhelming patient load they encounter daily. Owing to the increasing prevalence of individuals afflicted with COVID-19, there has been a corresponding surge in the volume of tasks and responsibilities they are compelled to undertake. Therefore, HCPs employed in hospitals are more susceptible to experiencing a decline in mental health and well-being.

Research findings indicate an increase in the occurrence of commonly observed mental disorders in developing nations, such as Nigeria. [6,7] Likewise, Buowari et al^[8] stated that the constituents of well-being encompass the effective completion of a daily routine and the perception of good health. Awosoga et al^[9] substantiate this assertion that, whether evaluated subjectively or objectively, the individual characteristics of HCPs are indicative of their overall well-being. This concept is sometimes referred to as health well-being or healthassociated quality of life. The assessment of an individual's contentment with life in many aspects of well-being is commonly known as personal well-being, condition of work life, as well as quality of care. Therefore, the identification of depression, anxiety, and stress symptoms can pose challenges to the mental health and well-being of HCPs because of their potential overlap. Individuals subjectively experience mental health stress that affects their well-being. Individuals vary in their ability to recognize and effectively manage mental health stress, thereby establishing different thresholds. HCPs employed in hospital settings regularly encounter challenging circumstances arising from their work responsibilities and other associated factors, leading to heightened stress and well-being levels. It is advisable to employ a suitable framework to elucidate its intricacies to enhance the comprehension of this inherently subjective subject matter. Furthermore, Olude et al^[10] revealed an increase in the incidence of mental strain among HCPs at the height of the outbreak, contingent upon the prevailing pandemic circumstances. Therefore, it is imperative to further explore this aspect to enhance knowledge and address the issue proactively, benefiting HCPs and managers in their efforts to prevent its exacerbation.

Previous studies have indicated that medical professionals, including doctors and nurses, experience heightened levels of mental health stress and well-being^[8–12] and encounter atypical working conditions due to the disease's cruelty and high contagiousness. These concerns include the fear of transmitting the disease to loved ones, uncertainty, excessive workload, and social stigma.^[13] Moreover, the extant literature has demonstrated that HCPs operating at the forefront of the COVID-19 crisis encounter an increased vulnerability to mental health disorders, encompassing but not restricted to sleep disturbances, anxiety, heightened stress levels, and depressive symptoms.^[11,13] These issues tend to worsen.^[10]

Nevertheless, prior research conducted in this area exhibited a greater emphasis on quantitative testing or was carried out in a single hospital. [5,10] This study adopted a different approach. The job demands-resources were employed as a framework for examining mental wellbeing. This model is a framework employed to understand the mental health and well-being of HCPs. This concept states that constant worry occurs when there is an imbalance between the expectations placed on a person and their ability to handle those demands. [14,15] The delivery of healthcare services during the pandemic entailed heightened risks to interpersonal relationships, emotional well-being, mental health, and behavioral patterns. Qualitative studies conducted during the virus outbreak employed the job demands-resources model[13,16] to examine stress among HCPs. Nevertheless, it is imperative to note that the outcomes of these analyses may not be generalizable to Nigeria. Furthermore, research has been conducted on the well-being and mental health of HCPs in Nigeria amid COVID-19, despite Nigeria being one of the five African nations with the highest recorded figure of pandemic cases. Therefore, it is necessary to examine the extent of depression, personal support, daily routine completion, good health perception, anxiety, and stress symptoms experienced by HCPs.

Consequently, this study aimed to explore the well-being and mental health of HCPs at EKSUTH and FETHI during the COVID-19 pandemic based on individual lines of work. Additionally, to acquire a more profound understanding of the vast and noteworthy expertise of doctors and nurses, it is imperative to undertake a comprehensive and targeted inquiry to collect and record pertinent data. Hence, this study argues that the distinct attributes

of pandemics require in-depth exploration via extensive interviews, a currently deficient domain.

METHODS

The study was conducted after obtaining ethical permission from the ethics council of British Canadian University. The study participants provided their informed permission by completing the interview.

Study Setting

A qualitative analysis was conducted among medical practitioners at EKSUTH and FETHI, two prominent health-care institutions in Ekiti, Nigeria, during the COVID-19 pandemic. Tertiary hospitals operated by both state and federal governments provide specialized medical services to the state's population. The transformation of a humble cottage hospital into a tertiary facility is characterized by its exceptional clinical services and significant contribution to HCP education and training.

Participants and Design

The research involved doctors and nurses directly involved in COVID-19 patient care across all departments. Convenience sampling was chosen because of its availability, accessibility, informed consent, and recognition as a professional in relevant fields. This study aimed to understand their involvement and contribution during the pandemic.

A phenomenological approach was used in the investigation. This is an unplanned and unstructured interview. The phenomenological method can lead to more detailed data collection about the participants' points of view, building relationships, and contextually nuanced data that can be used to explore complexity because participants are not limited to predetermined response categories. These allow respondents to express themselves and comment on their experiences in their own words.

Interview Technique

The study used an inductive qualitative technique, conducting interviews during designated break times within the hospital premises. The initial data-generating inquiry involved asking interviewees about their background, employment history, age, and contact details regarding pandemic treatment delivery. This study aimed to frame research questions and gather detailed information.

The research study developed an interview guide by drawing upon existing literature on workplace well-being and mental health. The interview guide underwent a pilot testing phase with four participants to verify the appropriateness of the question wording for obtaining the required information and ensuring a clear and thorough interview guide. Following internal testing, the study sought the evaluation of an expert to

obtain helpful suggestions. Subsequently, interviews were performed among the participants as part of the study. After a participant delivered an initial response, follow-up questions were used to urge them to expound using introspective, exploratory probing, and memory prompts to get the richest and most in-depth information possible. Furthermore, much emphasis was placed on nonverbal indicators and the ability to adapt to the participant's degree of comfort. These techniques fostered an environment that was conducive to providing support and minimizing judgment, as they motivated participants to engage in open and extensive sharing of their own experiences. Respondents were requested to submit a background description and narrative of their experiences according to the objectives of the study.

Data Collection

The study was conducted between March 2020 and May 2020, with in-person sessions lasting 30–50 minutes. The study employed an iterative approach, negative case analysis, conducting member checking in terms of accuracy and interpretation of the participant's contributions, and engaging in continuous analysis with attention to thematic saturation to prevent reoccurring themes obvious in the data to improve the study's quality, richness, validity, trustworthiness, and considerations in assessing data saturation.

Data Analysis

The study used HyperRESEARCH 4 for the content analysis after the interview sessions, meticulously examining each word in the text to identify patterns and resemblances and presenting findings using quotes from the textual transcript.

RESULTS

This study analyzed the perceptions and experiences of medical doctors and nurses during the COVID-19 pandemic using a qualitative technique. The following four broad topics emerged from the data analysis: stressful COVID-19 situations, physiological consequences of stress, personality–disposition connections, stress management techniques, and coping mechanisms. The study involved 14 HCPs supervising COVID-19 cases at EKSUTH and FETHI, with an average age of 44.7 years. The respondents were assigned to the response team from March to May 2020 (Table 1).

Theme 1: Healthcare Workers Faced Pandemic Stress

The study participants offered first-hand statements of their personal experiences and feelings related to their work as HCPs during the pandemic. A considerable number of participants reported feeling stressed because of concerns about their mental health, work,

Table 1. Participants background

Participants	Age, y	Status	Employment History, y	Work Station During COVID-19
HCP 1	56	Medical Doctor	22	EKSUTH
HCP 2	41	Medical Doctor	6	EKSUTH
HCP 3	30	Medical Doctor	5	FETHI
HCP 4	48	Medical Doctor	12	EKSUTH
HCP 5	45	Medical Doctor	11	EKSUTH
HCP 6	43	Nurse	8	EKSUTH
HCP 7	40	Nurse	10	FETHI
HCP 8	44	Nurse	11	EKSUTH
HCP 9	48	Nurse	12	EKSUTH
HCP 10	46	Medical Doctor	11	EKSUTH
HCP 11	42	Medical Doctor	10	EKSUTH
HCP 12	47	Medical Doctor	15	FETHI
HCP 13	44	Nurse	13	EKSUTH
HCP 14	52	Nurse	30	FETHI

HCP: healthcare professional; EKSUTH: Ekiti State University Teaching Hospital; FETHI: Federal Teaching Hospital, Ido-Ekiti.

professional trajectory, facilities, and other related factors. The following quotes from the interviews show that a sizable majority of people expressed feelings of mental health and well-being.

Career advancement conflict

The respondents' preexisting plans were put on hold because of the pandemic.

"...I had a forthcoming medical board test to write, which is being held up by my current employment as part of [the] COVID-19 team."

—Medical Doctor, HCP3.

During COVID-19, interpersonal and job variance significantly impacted excessive stress among HCPs, causing cognitive dissonance when their current occupation contradicts their career aspirations. Mental health challenges also hinder decision-making capabilities and negatively influence overall well-being, as observed in the aforementioned observations.

Employment demands and safety

The priority is the relative value or order of things in a given situation. This requires determining the sequence of activities. The source of anxiety is the relationship between work stability and personal safety. The individuals were perplexed and befuddled.

"My main cause of worry was my own thoughts ... my fears about my own safety ... This occupation is seen as a good and appropriate career option.... Considering the current situation, I thought of switching to a different line of work."

—Medical Doctor, HCP2

The awareness that COVID-19 is contagious, highly pathogenic, and has the potential to be fatal has increased the perception of personal danger among healthcare personnel.

Workplace stress

Given that a significant proportion of the participants expressed an expectation of experiencing stress and anxiety due to COVID-19, the interviews delved into how the pandemic raised their workload to an unforeseen degree, which they had not anticipated. The questions focused on HCP workload pressure, as indicated in the following excerpt.

"...infected patients who increased unquestionably made us feel the very heavyweight saddle."

-Medical Doctor, HCP3

"... our workload is soaring."

—Nurse HCP6

"... while this pandemic occurs, our current workload increases."

—Medical Doctor, HCP12

Many HCPs in pandemic research reported an overwhelming workload, but few thought their efforts had gone unnoticed.

Family obligation

The respondents expressed a sense of inability to allocate sufficient time to their families because of excess work demands and additional responsibilities brought about by the pandemic.

"I believe that looking after families and providing them time is truly essential ... It is critical to listen.... I felt bad about my lack ... What to do with my employment has become such a ..."

-Nurse, HCP14

The influence of social media and government agencies

The proliferation of unregulated print, social media platforms, and government agencies disseminating unsubstantiated information and misrepresentations induced psychological distress among HCPs involved.

"At times, individuals on social media express their appreciation, but at other times, it might be disconcerting to witness others accuse us of engaging in profit-seeking activities ..."

Medical Doctor, HCP5

"On social media, anyone may say whatever they want ... it has devolved into a quagmire of garbage."

-Nurse, HCP7

"... While, on occasion, there are specific expectations and pressure from government agencies and the media.... However, we can appreciate that they, too, face pressures from the public ..."

-Medical Doctor, HCP3

Deferred individual ambitions

"I had intended to pursue higher education . . . Everything halted . . . The entire world came to a halt . . . My aspiration manifests as a distressing experience for me . . ."

-Medical Doctor, HCP12

This illustration elucidates an additional subjective component leading to mental distress in HCPs. Prior to the pandemic, HCPs could easily pursue higher education, but this became more difficult.

Theme 2: Psychological Impacts of Stress

Considering that a substantial section of the interviewees conveyed anticipation of encountering worry and anxiety due to the COVID-19 pandemic, the interviews probed the fundamental and influential factors. The investigations focused on the psychological impact of stress. During the interviews, a large number of respondents asserted that fatigue, exposure, and a sense of safeguarding were key factors that accounted for their anxiety, familial tension, and jobrelated stress, thus serving as fundamental contributors to their perceived effects of stress. The pandemic has exerted a substantial influence on both mental and physical health, resulting in various harmful effects. Of note, HCPs who felt less support from their organizations tended to experience greater stress levels and vice versa.

Anxiety

"I experienced some depression and some anxiety."

—Nurse, HCP8

"Everywhere you look, HCPs are stressed out and depressed."

—Medical Doctor, HCP13

"... In addition to the anxiety we experience, we also have the burden of responsibility for answering the employment emergency call."

-Medical Doctor, HCP1

Anxiety is a prevalent issue among HCPs and is mostly attributed to heightened levels of employment uncertainty and unsustainability.

Shifts in attitude and depression

"This has turned into a regular habit ... I get depressed occasionally ... I used to have attitude shifts ..."

-Nurse, HCP6

This study explored the precarious nature of situations arising from pandemics and their subsequent implications. Many respondents affirmed that during the pandemic's initial phases, fear and the development of symptoms of depression were experienced while providing care for patients in intensive care units.

Decline physical well-being

"The extended duration of my work hours has had a detrimental impact on my physical well-being ... I believe my physical strength has declined. Indeed, this phenomenon has tangible impacts on my overall physical well-being ...

-Nurse, HCP9

This indicates that HCPS caring for COVID-19 patients were not in good health due to their lengthy workdays and stressful workloads.

Sleep deficiency

"We do not feel good on one side, we are making sacrifices, and we do not get enough sleep."

-Medical Doctor, HCP4

This quote shows that HCP sleep quality was negatively affected by pandemics.

Theme 3: Personality and Disposition

Individual personalities significantly impact on how individuals navigate and cope with various stress-inducing circumstances and experiences throughout their lives. The theme analysis presented an exploration of the personalities of HCPs. Participants exhibited personality traits characterized by a propensity for learning, assertiveness, trustworthiness, and personal support.

Propensity for learning

"I believe as a medical professional, I firmly think that physicians are perpetual learners. . . . it is imperative to continuously acquire updated information, actively engage in research endeavors, explore novel procedures, familiarize oneself with cutting-edge technology, and effectively integrate these advancements into the practice of medicine."

-Medical Doctor, HCP1

Physicians were frequently acknowledged as knowledgeable authorities for COVID-19 due to their learning practices.

Assertiveness

"... it is imperative for practitioners to exhibit assertiveness and consistently assume leadership roles."

-Medical Doctor, HCP12

This theme indicates that exhibiting assertiveness during pandemic periods can effectively mitigate the challenges encountered while interacting with patients. Lack of assertiveness can give rise to challenges in effectively interacting and collaborating with patients and coworkers.

Trustworthiness

"I am perceived by the patients as a reliable individual, someone who is frequently sought out for assistance, and I am of the opinion that my coworkers have confidence in me."

-Nurse, HCP14

This discussion emphasizes the significance of perceived trust in inspiring HCPs to provide improved services.

Personal support

"I strive for my best abilities. I derive personal satisfaction from my occupation right now."

—Medical Doctor, HCP1

"I am honored to be able to contribute to my country during the pandemic and acquire new and valuable experiences."

-Medical Doctor, HCP3

"I enjoy working on the frontlines because I believe this is why we chose medicine."

-Medical Doctor, HCP2

"... I am pleased to be a lifesaver during this epidemic and to be working and helping."

-Nurse, HCP8

"... without us, this pandemic cannot be contained and may have become worse; thus, the people need us."

-Nurse, HCP7

The experience of responsibility, acquisition of knowledge, and collaboration among HCPs facilitated the management of anxiety.

Theme 4: Stress Management Techniques and Coping Mechanisms

Thematically, the findings showed a connection between the stress experienced by doctors and nurses and the various coping mechanisms they used to deal with it. These mechanisms contribute to the sense of relaxation in the face of stressful events. Several respondents discussed the following stress-management techniques.

Rationality concept

The respondents demonstrated a comprehensive understanding of the current circumstances, engaging in a process of rationalization and incorporating the impact of pandemics into their decision-making processes.

"I had a forthcoming medical board test to write, which is being held up by my current employment as part of the COVID-19 team."

-Medical Doctor, HCP3

Communication

The provision of accurate and timely information and effective communication has facilitated HCPs to carry out their professional responsibilities.

The group WhatsApp messages ... meetings ... calls ... were characterized by a high level of activity, resulting in an overwhelming amount of communication for us. Furthermore, this aspect also facilitated the monitoring of our progress.

-Nurse, HCP6

Adhere to standard operating procedures

The participants noted that adherence to instructions and the provision of standard operating procedures were crucial in assisting them in coping with the difficulties brought on by the widespread spread of the outbreak.

"The essential factor in achieving a state of tranquility was adhering to the prescribed standard operating procedures ... or one may experience a state of mental instability or psychological distress."

-Nurse HCP14

"I am truly concerned about adhering to all the standard operating procedures that are necessary for a doctor....

Although it might be challenging to uphold all of these factors..."

—Medical Doctor, HCP12

"With the exception of my immediate family, I refrained from establishing communication with other members of my family."

-Medical Doctor, HCP10

Self-motivation concept

The study revealed that HCPs exhibited intrinsic motivation and resolute determination to address a pandemic scenario. The participants experienced a scarcity of professional assistance in the form of counseling and psychological rehabilitation. Consequently, individuals are required to employ self-management techniques to effectively navigate the pandemic.

"I aspire to become a physician and possess a comprehensive understanding of the field I am pursuing. This decision was made consciously, as I believed that my skills and expertise would be of great significance to my community.

-Medical Doctor, HCP3

Within the context of this topic, individuals have demonstrated a sense of personal drive by recognizing their responsibilities and reflecting on the inherent characteristics of the job they have chosen. The emphasis on selflessness in the provision of critical and life-preserving services is heightened during times of crisis, leading HCPs to perceive themselves as heroic.

Retrospective analytic approach

A retrospective study conducted on the respondents facilitated the acquisition and management of stressful circumstances.

"... As HCPs, it is imperative that we maintain composure and remain cool in potentially panic-inducing situations ..."

-Nurse HCP14

"The iterative nature of experience allows individuals to derive inferences from their past mistakes and subsequently enhance their learning process. The significance of doing a retrospective analysis cannot be understated.... Medical professionals are expected to remain composed and avoid panic in their practice.

-Medical Doctor, HCP1

This issue explores the implementation of coping techniques employed by HCPs to deal with the issues brought about by the COVID-19 outbreak. The spread of COVID-19 has presented significant challenges to healthcare personnel, leading to a heightened sense of self-reflection and self-analysis.

Stress reduction training

"To combat this pandemic, each of us received comprehensive training sessions for a period of time."

-Medical Doctor, HCP11

"The instruction provided to us gave us the self-assurance to deal with these trying circumstances."

-Nurse HCP7

Religion

This significant subject reveals the participants' deep regard for religious principles and convictions.

".... The almighty owns each one of us, and he is the most powerful of all ..."

-Nurse HCP130

"... if I not for my trust in God, I would not have been able to cope with the pandemic stress ... but instead I maintained a truly optimistic attitude."

-Medical Doctor, HCP3

Respondents used religious coping techniques and valued religion as a way to deal with difficult situations, such as pandemics. This suggests that faith or religion helped individuals in this study be resilient and safe.

DISCUSSION

According to the findings of this study, healthcare workers have experienced significant mental health challenges during the pandemic. Healthcare personnel commonly experience significant weariness and burnout because they cannot tolerate extended exposure to the severe demands placed on their psychological and physical well-being. One feature of this study was that individuals struggled to meet their professional obligations. In contrast, many reported feeling substantial pressure from social media platforms and government agencies, something they had not experienced previously. The Tomaszewska et al^[3] and Xiaoming et al^[4] studies support our findings. Pressure on nurses and medical doctors can be ascribed to social media and the expectations of government authorities. Furthermore, other sources of stress among the survey participants were their fear of catching diseases and anxiety about spreading infections to their loved ones. The fear of infection acquisition and spread constitutes a serious challenge in terms of commitment to professional work ethics.

The study revealed noteworthy data on the personalities of HCPs, stressing their self-directed attitude, proclivity for learning, and assertiveness, which were indicated by their demonstrated unshakeable dedication to assisting COVID-19 patients. As a result, it was stated that commitment was made to improve the execution of their obligations to achieve their professional promises and develop a coherent and motivated collaborative effort to battle the COVID-19 epidemic. Furthermore, the capacity to properly handle a pandemic in an impoverished country such as Nigeria remains uncertain. Nigeria appears to lack the organizational and physical resources required to handle this situation. [17,18] Nigeria's healthcare system is now in its infancy and demands extensive planning, training, and financial resources. Healthcare personnel working in a stressful environment are typified by the pandemic's compounding pressures and a number of additional challenges, such as insufficient training and a poor healthcare system with insufficient infrastructure.

COVID-19 pestilence has had a dualistic impact on countries characterized by fragile economic conditions. Healthcare personnel in Nigeria face problems in handling a pandemic due to the lack of widespread vaccination, a faulty healthcare system, and limited access to psychological support services. On the one hand, front-line workers need to execute their obligations, yet they are not provided with enough facilities or rewards. This increased the complexity of the task. In the absence of

adequate system support, [19] HCPs depended on their own dispositions and implicit, unspoken expectations. Individuals with assertive, god-fearing, learning-oriented, and self-directed dispositions, motivated by a profound desire to serve their country without regard for personal gain, have effectively fulfilled their tasks. Several personality features, as well as the availability of support from colleagues, efficient communication, and proper training, aided in reducing stress among HCPs.

It is worth noting that despite the difficulties encountered by the personnel involved, HCPs in Nigeria could not receive any expert aid in medical care and psychotherapy. Furthermore, a previous study has found a link between religious views and mental health.[13,20] The present study supports this conclusion because individuals reported a change in concentration toward their faith. Furthermore, a significant amount of unparalleled psychological encouragement and motivation has been provided to research respondents by the general public, mostly because of their religious views, far exceeding any analogous occurrences in recent history. The participants recognized the importance of this aspect in the progress of treatment strategies for mental health. Creating a sociocultural framework characterized by a pervasive sense of belonging, caring, and mutual help during times of adversity has the potential to improve both mental health and immune system performance. These outcomes, in turn, may help to improve COVID-19 and stress-related disorders. [13]

The pandemic's influence on HCP stress levels revealed the repercussions of the uncertainty caused by this unexpected and unanticipated global health disaster. [21] Physical and mental health problems are only a few manifestations of pandemic-induced stress.[3] It is worth noting that HCPs have been actively carrying out their obligations despite the difficult circumstances of the pandemic. The relevance of this phenomenon stems from its scientific basis, which reveals that expressing thankfulness and gratefulness has a significant influence on the brain, helping both the individual and the recipient to express these thoughts. Numerous empirical studies in the field of positive psychology have found a strong link between gratitude, appreciation, and improved well-being. [22] This emphasizes the need to identify and reward HCPs and caregivers during the COVID-19 outbreak.

The study limitation stems from the analysis being conducted qualitatively. Given the small sample size, the resulting conclusions may lack a comprehensive understanding of the event. This limitation limits the ability to apply the findings to a larger population. However, a quantitative study or a mixed-methods approach could be used to improve the robustness of future research findings. Furthermore, broadening the range of variables investigated would contribute to the study's overall comprehensiveness.

CONCLUSION

The current study produced various recommendations for consideration. It is evident that HCPs played a crucial role as primary defenders in combating the outbreak. The importance of their job extends beyond meeting the nation's healthcare requirements to overcoming any challenges that may occur within this system. As a result, it is critical to research nurses' and medical doctors' life experiences to understand the problems they face and to provide appropriate professional and emotional support. It is essential to ensure the provision of mental health services, including access to competent psychologist treatment and emergency response training, to meet the welfare requirements of HCPs. It is critical to build strong connections with the public and establish healthcare services to rebuild public trust, deconstruct opposition, and actively involve every individual in the battle against the pandemic. The role of community health staff is critical in building a link between communities and health organizations. The control of media, particularly social media, is an important subject that should be discussed but has considerable limitations. HCPs can benefit immensely from the existence of supportive media and government because these groups can provide significant aid and encouragement. It is also critical to improve and build appropriate coping techniques. It is critical to conduct implementation research to improve the understanding of the stress faced by HCPs and their coping methods, particularly in connection to peer and organizational support. Furthermore, there is a demand for government-controlled awareness activities, such as in health departments. Finally, through interviews with HCPs, our study made substantial additions to the body of knowledge on COVID-19 in Nigeria.

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References

- 1. Eniola AA. *Entrepreneurship and Post-Pandemic Future*. Emerald Publishing Limited; 2022.
- 2. Eniola AA, Iwu CG, Opute AP. *The Future of Entrepreneurship in Africa: Challenges and Opportunities Post-Pandemic*. 1st ed. Taylor and Francis; 2022.
- 3. Tomaszewska K, Majchrowicz B, Snarska K, Telega D. Stress and occupational burnout of nurses working with COVID-19 patients. *Int J Environ Res Public Health*. 2022;19:12688.
- 4. Xiaoming X, Ming A, Su H, et al. The psychological status of 8817 hospital workers during COVID-19 epidemic: a cross-sectional study in Chongqing. *J Affect Disord*. 2020;276:555–561.
- Okoroiwu HU, Ogar CO, Nja GME, et al. COVID-19 in Nigeria: account of epidemiological events, response,

- management, preventions and lessons learned. *Germs*. 2021;11:391–402.
- Coker AO, Coker O, Sanni D. Psychometric properties of the 21-item depression anxiety stress scale (DASS-21). Afr Res Rev. 2018;12:135–142.
- 7. Sarkar S, Gupta R, Menon V. A systematic review of depression, anxiety, and stress among medical students in India. *J Ment Health Hum Behav.* 2017;22:88.
- 8. Buowari DY, Jimoh AO, Isokariari OM-A, et al. The mental well-being of physicians in Nigeria during the COVID-19 pandemic. *Niger J Med.* 2022;31:569–575.
- 9. Awosoga OA, Odunaiya NA, Oyewole OO, et al. Pattern and perception of wellbeing, quality of work life and quality of care of health professionals in Southwest Nigeria. *BMC Health Serv Res.* 2022;22:1387.
- 10. Olude OA, Odeyemi K, Kanma-Okafor OJ, et al. Mental health status of doctors and nurses in a Nigerian tertiary hospital: a COVID-19 experience. *S Afr J Psychiatr* 2022;28:1904.
- 11. Rana W, Mukhtar S, Mukhtar S. Mental health of medical workers in Pakistan during the pandemic COVID-19 outbreak. *Asian J Psychiatr.* 2020;51:102080.
- 12. Akkuş Y, Karacan Y, Güney R, Kurt B. Experiences of nurses working with COVID-19 patients: a qualitative study. *J Clin Nurs*. 2022;31:1243–1257.
- 13. Afshan G, Ahmed F, Anwer N, et al. COVID-19 stress and wellbeing: a phenomenological qualitative study of Pakistani medical doctors. Original Research. *Front Psychol*. 2022;13:920192.
- Bakker AB, Demerouti E. The job demands-resources model: state of the art. *J Manag Psychol*. 2007;22:309–328.

- 15. Demerouti E, Bakker AB, Nachreiner F, Schaufeli WB. The job demands-resources model of burnout. *J Appl Psychol*. 2001;86:499.
- 16. Alizadeh A, Khankeh HR, Barati M, et al. Psychological distress among Iranian health-care providers exposed to coronavirus disease 2019 (COVID-19): a qualitative study. *BMC Psychiatry*. 2020;20:494.
- 17. Amzat J, Aminu K, Kolo VI, et al. Coronavirus outbreak in Nigeria: burden and socio-medical response during the first 100 days. *Int J Infect Dis*. Sep 2020;98:218–224.
- 18. Lawal L, Lawal AO, Amosu OP, et al. The COVID-19 pandemic and health workforce brain drain in Nigeria. *Int J Equity in Health*. 2022;21:174.
- 19. Zandi G, Shahzad I, Farrukh M, Kot S. Supporting role of society and firms to COVID-19 management among medical practitioners. *Int J Environ Res Public Health*. 2020;17:7961.
- 20. Dein S. Against the stream: religion and mental health—the case for the inclusion of religion and spirituality into psychiatric care. *BJPsych Bull*. 2018;42:127–129.
- 21. Kotera Y, Ozaki A, Miyatake H, et al. Qualitative investigation into the mental health of healthcare workers in Japan during the COVID-19 pandemic. *Int J Environ Res Public Health*. 2022;19:568.
- 22. Kardas F, Zekeriya C, Eskisu M, Gelibolu S. Gratitude, hope, optimism and life satisfaction as predictors of psychological well-being. *Eurasian J Educ Res.* 2019;19(82): 81–100.