ORIGINAL ARTICLE

The Psychosocial Impact of COVID-19 on Healthcare Workers: A Descriptive Cross-sectional Study

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ABSTRACT

Background. COVID-19 has created a worldwide health emergency due to pandemic-imposed restrictions, which has resulted in psychosocial problems, especially for frontline healthcare workers like nurses.

Objective. This study aimed to determine the impact of the COVID-19 pandemic on the psychosocial health of healthcare workers and the subsequent coping strategies employed.

Methods. A descriptive, cross-sectional design was used. The study included 413 healthcare workers at the Enugu State University Teaching Hospital in Parklane, Nigeria, using a snowball and enumeration sampling technique. The researcher developed a survey questionnaire to evaluate the respondents. The actual sample size for the study was calculated using the Open Epi technique. The researcher evaluated the population under study using proportionate stratified sampling and the inversion sampling method as statistical tools.

Results. The findings revealed that female nurses aged 40 to 46 predominantly experienced challenging moments that emerged from quarantine, isolation, and burnout-related problems because of COVID-19. There was a significant variation in the problems associated with anxiety, depression, and recurrent fear. The study revealed that the nurses consistently used coping strategies for anxiety, such as rest, calm practice, spiritual uplift, and music. The nurses frequently turned to openness and other forms of spiritual stimulation due to their fear of uncertainty and depression. There was a significant correlation between sociodemographic characteristics and psychosocial stressors. The effects of quarantine were significantly impacted by age. Consequently, the results showed that coping strategies for fear, anxiety, and depression, as well as age, marital status, and previous experiences, were strongly and significantly correlated with gender.

Conclusion. The COVID-19 pandemic impacted all the variables. The nurses underwent a challenging period, dealing with issues related to quarantine, isolation, and burnout, as well as significant variations in anxiety, depression, and recurrent fear.

Consequently, more male staff and institutional readiness lessen anxiety, fear, and depression. Encouraging patient advocacy and providing educational training about infectious diseases are priorities because they improve patient care and healthcare workers' safety. These coping strategies can improve the social and mental well-being of healthcare professionals, as well as their physical health. Thus, further study in areas like social dynamics and relationships is encouraged.

Keywords: psychosocial effects, COVID-19 pandemic, mental health, stressors, nurses

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INTRODUCTION

The World Health Organization (WHO) has classified the Coronavirus Disease 2019 (COVID-19) as a pandemic, with the SARS-CoV-2 virus being the driver of this disease.[1] According to academics, the virus appeared on its own and infected humans between October 6, 2019, and December 11, 2019.[2] China discovered the virus in December 2019, while Nigeria discovered it on February 27, 2020.[2,3] The COVID-19 pandemic has had a catastrophic effect on people all throughout the world, turning ordinary actions into routines. According to research, one million people have died because of the viral spread by the time this article was written.[4,5] According to a population-based estimated value, the COVID-19 virus killed 115,493 healthcare workers, negating the WHO's previous assessment of 6633 deaths. Figures from the Eastern Mediterranean, Western Pacific, Southeast Asian, and African regions, however, have inconsistent reported values.[6]

Researchers conducted a study to assess the impact of the COVID-19 pandemic on the mental health of healthcare workers. The study, which involved 1,716 healthcare workers from 25 countries, found that 35% of them suffered from anxiety, 34% from sleeplessness, and 35% from depression.[7] These findings across multiple countries highlight the global impact of the COVID-19 pandemic on healthcare workers. A study in Spain reveals high mental discomfort among healthcare professionals, particularly nurses and doctors, with 90% requiring urgent medical attention during the COVID-19 pandemic.[8] Numerous scenarios involving social and behavioral difficulties associated with COVID-19 have led to a paucity of studies and attempts by Pfefferbaum et al.[9,] and Fiorillo et al.[10] to mitigate the psychosocial consequences on individuals. Health care workers are increasingly recognizing health-based intervention methods as evidence-based therapy and a potential solution to psychological distress.[11]

According to the CDC, the pandemic began in Lagos and Abuja, Nigeria, with 1273 cases and 40 deaths, as well as over 210,000 confirmed cases and 2,855 deaths in America.[12,13] Nurses are more susceptible to psychosocial consequences, which can be exacerbated or contributed to by prior therapeutic, mental, or substance addiction difficulties.[14] A study of dialysis nurses found a strong link between the emotional tiredness brought on by depersonalization and the quality of their nursing care.[15] Evidence from an Italian research of medical professionals, nurses, and support personnel, 10–40% of them still had signs of post-traumatic stress disorder one to three years after the epidemics. According to a summary of 44 studies including physicians, nurses, and support staff, one to three years after the outbreaks, between 11 and 73.4% of these healthcare professionals still displayed symptoms of post-traumatic symptoms disorder.[16] Experienced clinicians frequently reported that they experienced anxiety, fear, and stress among Jordanian healthcare workers in the COVID-19 pandemic.[17]

Extremely poor attitudes and understanding regarding the COVID-19 infection were found in a study of healthcare workers in tertiary facilities in Enugu State, Nigeria, which resulted in routine behaviors.[18] This implies that addressing attitudinal issues during viral epidemics may be accomplished using orientation. Hospital overcrowding and anxiety among healthcare workers are significant challenges, affecting their psychological and social well-being and the likelihood of their family members contracting COVID-19. This study aims to determine the psychosocial health impact of the COVID-19 pandemic among healthcare workers and the subsequent coping strategies employed. Thus, understanding and resolving the mental health issues that healthcare workers encounter is heavily dependent on the psychosocial consequences of COVID-19. It provides insightful information that can lead to increased resilience, better workforce, and stronger support networks, all of which can improve the mental health and productivity of the healthcare workforce at Enugu State University Teaching Hospital Parklane in Nigeria.

METHODS

Research Design

The descriptive cross-sectional research design examined healthcare professionals to understand the psychosocial aspects and repercussions of the COVID-19 pandemic, as well as its prevalence within a specific population.[19] Because it was precise and cost-effective based on ethical considerations, Enugu State University Teaching Hospital in Parklane, Nigeria, served as the study's location. The study recruited nurses from Enugu State University Teaching Hospital in Parklane, Nigeria and was conducted from April to July 2021. Cover letters were sent clarified the goals, highlighted the purpose of the study, and described the data collection process. The graduate school's research committee and administrators at Enugu State University Teaching Hospital Parklane gave permission for data collection. This study recognized the formal authorization of the Saint Louis University Ethical Review Board.

Sampling

Open Epi[20] was used to calculate the sample size based on a population of 550 nurses with an expected frequency of 50%. The researcher used a margin of error of 5% and a design effect of 1.0 to determine the sample size. This equates to a sample size of 413 with a 99% confidence level. The researcher achieved fair representation of nurses based on their units through proportionate stratified sampling, which generates a list of nurse sections to which they belong. This is an inversion sampling method, where a specific population characteristic undoubtedly shapes the phenomenon under investigation. It divides the population into different subpopulations or units, where the consumption characteristics are more similar than in the entire population. The researcher divided the respondents into groups based on their specific characteristics (i.e., age,

gender, marital status, highest educational attainment, length of service, and prior experience), which is required for simple analysis and computation. When respondents are placed into their respective groups, they represent the total population due to strata-to-strata homogeneity and variance.[21] Nonetheless, the distribution of the questionnaires was contingent upon the quantity of nurses from the corresponding units who consented to participate in the research. A total of 413 nurses completed the survey out of the intended 550 sample size, which was still acceptable considering the 99% confidence level and the optimal sample size of 227 at a 95% confidence level. Notably, there was no missing data.

Data Collection and Analysis

Nurses from the Enugu State University Teaching Hospital, which employs about 550 nurses altogether, participated in the study. The researcher employed a thorough enumeration process to ascertain the fundamental data needed for a wider range of analytical and decision-making processes. The researcher can accurately quantify the health phenomenon, ensuring a clear statement of health policies, interventions, and resources. In other words, these processes are critical to improving the institution's health care outcomes. Not every respondent, though, got their questionnaires returned. As a result, the researcher distributed the questionnaires to participants who were directly on duty at the time of data collection. Despite including only 413 participants, this figure accurately represents the population under study.

Similarly, the study used the "snowball sampling" method to enhance the selection process, giving the researcher the opportunity to choose potential individuals. It is very helpful for locating unique characteristics that are challenging for the researcher to find. Additionally, it aids in the random selection of research samples depending on the importance placed by the criteria on a particular judgment.[22] Notably, it is a justified and valuable method for accessing hard-to-reach respondents when the researcher's goal is to collect rich data. In this aspect, the transparent report limited any potential bias. Only formally employed nurses (either male or female) with months or several years of experience who provided care for the COVID-19 patients within the study period and willing to participate were eligible for inclusion. The exclusion criteria were nurses who had no formal employment at the health facility and did not participate in COVID-19 patient care.

Instruments

The researcher developed the survey questionnaire to address concerns about the study's objectives. The text was lucid and employed basic English vocabulary. The survey was divided into three categories: sociodemographic characteristics, psychosocial effects of COVID-19 among healthcare workers, and their COVID-19 coping strategies. Experts conducted validity testing on the questionnaire, resulting in an AWM score of 3.80. This was followed by reliability testing, which yielded a pilot score of 0.89.

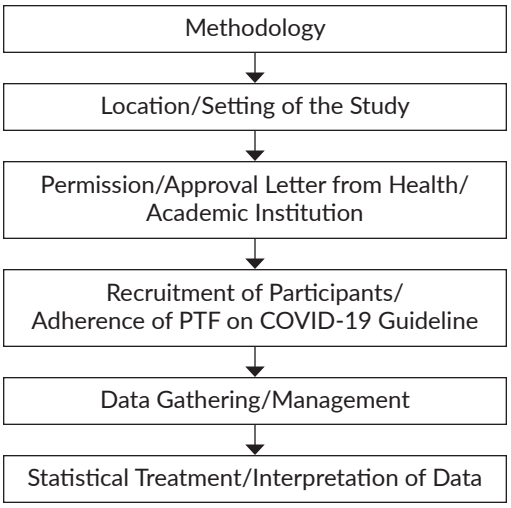

Figure 1. Data gathering flowchart.

Statistical Treatment

The frequency distribution table and percentage were utilized to illustrate the nurses' sociodemographic characteristics. The Likert scale [(range 0-4) indicating 4 – very often (VO) = 3.50-4.00; 3 – fairly often (FO) = 2.50-3.49; 2 – sometimes (S) = 1.50-2.49; 1 – almost never (AN) = 1.00-1.49; 0 – never (N) = 0.1-0.9] was used to answer questions 2-4 on the psychosocial stressors, effects, and coping methods associated with COVID-19 in nurses. The stressors, effects, and coping strategies are measured by the weighted mean, standard deviation, and descriptive equivalent. The weighted mean's interpretation scale showed how stressors affected fear, anxiety, and depression. The p-value was used to address questions 5 and 6 on the association of sociodemographic profile on psychosocial stressors, psychosocial consequences of COVID-19, and coping methods. Notably, Figure 1 provides a simplified diagram that instructs the researcher on how to effectively use the methods for participant sampling, data collection, and statistical data representation.

RESULTS

Sociodemographic Profile of the Respondents

From the survey, findings showed that most nurses were female (309, 74.81%), aged 40–46 years old (223, 53.99%), and married (290, 70.22%). Most of the respondents were bachelor's degree holders (260, 62.95%), followed by diploma holders (29, 7.02%). Nurses who have served for more than 15 years (200, 48.43%) and those with previous experience (240, 58.11%) hold the highest educational attainment (Table 1).

Psychosocial Stressors Associated with COVID-19 and their Effects on Respondents

Table 2 shows that most of the nurses said they "sometimes" felt alone and had problems related to being

Table 1. Sociodemographic Profile of Respondents (N= 413)

Profile Variables	Frequency	Percentage
Age (years)		
19-25	42	10.17
26-32	66	15.98
33-39	50	12.11
40-46	223	53.99
47-53	18	4.35
54 and above	14	3.39
Gender		
Female	309	74.81
Male	104	25.18
Marital Status		
Single	76	18.40
Married	290	70.22
Separated	29	7.02
Widow	18	4.36
Highest Educational Attainment		
Diploma	29	7.02
Bachelors	260	62.95
Advance Studies	70	16.95
Postgraduate	54	13.07
Length of Service (years)		
<5	70	16.95
5-10	90	21.79
10-15	53	12.83
>15	200	48.43
Previous Experience		
Yes	240	58.11
No	168	40.68
Maybe	5	1.21

alone. However, some experiences occurred more frequently, such as feeling of discomfort from being away from loved ones (2.56, 1.099) and having weird thoughts (2.69, 1.137). It shows how peer group or family ties can be essential for healthcare workers in enhancing their psychosocial mental health. Similarly, nurses reported experiencing problems related to quarantine "fairly often," indicating that it had a greater impact on them than isolation (2.80, 1.154), probably because quarantine is a complete restricted movement for exposed and unexposed individuals, whereas nurses in isolation offer care to sick individuals.

Psychological Distress of COVID-19 among the Respondents

Table 3 shows that the nurses frequently experienced anxiety-related issues with significant variability, and occasionally experienced depression-related and fear-related issues. It indicates that the nurses experienced anxiety frequently, which most likely resulted in stress because of their profession and the uncertainty of the unknown during the pandemic. They did, however, experience stress to some extent (overall = 2.56 ±1.124), which means "fairly often." There was considerable variability on how different individuals experienced these issues, reflecting diverse personal impacts and coping strategies during the period assessed.

Psychosocial Impact of COVID-19 and Coping Strategies

Table 4 shows that nurses engaged in coping strategies for anxiety “fairly often” (overall = 2.69 ±1.173), which indicates significant variability. Additionally, employees in healthcare settings recognize anxiety as a unique factor that

Table 2. Psychosocial Stressors Associated with COVID-19 and their Effects on Respondents

	Indicators	Mean ± SD	Descriptive Equivalent
Social Distance			
Isolation			
1	In the last month, how often have you felt isolated because of the virus?	2.42 ± 0.956	S
2	In the last month, how often have you felt that you could not control essential things and get hostile due to isolation?	1.95 ± 1.168	S
3	In the last month, how often have you felt nervous and stressed, and lost sleep?	2.29 ± 1.165	S
4	In the last month, how often have you been uncomfortable having been isolated from loved ones?	2.56 ± 1.099	FO
5	In the last month, have you felt different from being isolated with weird thoughts?	2.69 ± 1.137	FO
6	How often have you felt the need to go out like usual and do things in the last month?	1.99 ± 1.174	S
Over-all mean		2.31 ± 1.143	S
Quarantine			
7	In the last month, how often have you been placed on quarantine?	2.80 ± 1.154	FO
8	In the last month, how often have you been in contact with infected persons?	2.66 ± 1.135	FO
9	How often have you felt the need to go out like usual and do things in the last month?	2.70 ± 1.221	FO
10	In the last month, how often have you had inadequate supplies?	1.99 ± 0.912	S
11	In the last month, how often have you had inadequate information?	2.68 ± 1.125	FO
12	In the last month, how often have you felt boredom with stigmatization?	2.54 ± 1.114	FO
Over-all mean		2.56 ± 1.123	FO

Table 2. Psychosocial Stressors Associated with COVID-19 and their Effects on Respondents *(continued)*

	Indicators	Mean ± SD	Descriptive Equivalent
Work Environment			
Burnout			
13	In the last month, how often have you felt energy depletion?	1.78 ± 0.843	S
14	In the last month, how often have you felt increased mental distance from your job?	2.39 ± 1.113	S
15	In the last month, how often have you felt negative feelings about your job?	2.42 ± 1.155	S
16	In the last month, how often have you felt reduced professional efficiency?	2.30 ± 1.135	S
17	In the last month, how often have you felt fatigued at work	1.77 ± 0.891	S
18	In the last month, how often have you felt irritable with your schedule?	1.85 ± 0.921	S
Over-all mean		2.09 ± 1.165	S
Toxic workplace			
19	In the last month, how often have you felt more than you can bear due to toxic duties?	1.64 ± 1.155	S
20	In the last month, how often have you felt fear from insufficient facilities?	2.22 ± 1.175	S
21	In the last month, how often have you felt restless?	1.83 ± 1.121	S
22	In the last month, how often have you felt the inability to eat due to the high influx of patients?	1.77 ± 1.123	S
23	In the last month, how often have you felt frustrated by your colleagues?	1.79 ± 1.112	S
24	In the last month, how often have you felt back pains from excess standing and work?	1.83 ± 1.115	S
Over-all mean		1.85 ± 1.121	S

4 – Very often (VO) = 3.50-4.00, 3 – Fairly often (FO) = 2.50-3.49, 2 – Sometimes (S) = 1.50-2.49, 1 – Almost never (AN) = 1.00-1.49, 0 – Never (N) = 0.1-0.9, SD = Standard Deviation, DE = Descriptive Equivalence

Table 3. Psychological Distress of COVID-19 among the Respondents

	Indicators	Mean ± SD	Descriptive Equivalent
Anxiety			
1	I feel my heart pounding/ racing.	2.80 ± 0.942	FO
2	I feel nervous, my hands are trembling, shaky, and unstable.	2.23 ± 1.165	S
3	I usually experience a sensation of numbness or tingling when I am physically at work.	2.45±1.175	S
4	I experience hot/ cold sweats.	2.30 ±1.079	S
5	I find it difficult to breathe.	2.80 ±1.227	FO
6	I feel lightheaded.	2.68 ±1.194	FO
7	I usually have a face flush.	2.80 ±1.213	FO
8	I am unable to relax.	2.45 ±1.083	S
Over-All Mean		2.56 ±1.124	FO
Depression			
9	I find it difficult to sleep.	2.40 ±0.966	S
10	I usually have appetite issues.	2.51 ±1.138	FO
11	I do lose weight.	2.54 ±1.065	FO
12	I am usually worried about my health and that of my family.	2.40 ±0.969	S
13	I cannot concentrate on thinking or engaging in sexual activities.	2.68 ±1.127	FO
14	I lost interest in work and people, and I feel sad.	2.30 ±1.144	S
Over-all mean		2.47 ±1.123	S
Fear			
15	I am terrified of contracting the virus.	2.40 ± 1.156	S
16	I am terrified of infecting my family daily.	2.16 ± 1.128	S
17	I fear that I might die.	2.45 ±1.185	S
18	I fear that I might never get to see my family again.	2.53 ± 1.119	FO
19	I fear that people would exclude me.	2.49 ±1.117	S
20	I fear that life may never get back to normal anymore.	2.30 ±1.124	S
Over-all mean		2.38 ±1.133	S

4 – Very often (VO) = 3.50-4.00, 3 – Fairly often (FO) = 2.50-3.49, 2 – Sometimes (S) = 1.50-2.49, 1 – Almost never (AN) = 1.00-1.49, 0 – Never (N) = 0.1-0.9, SD = Standard Deviation, DE = Descriptive Equivalence

Table 4. Psychosocial Impact of COVID-19 and Coping Strategies

	Indicators	Mean ± SD	Descriptive Equivalent
Anxiety			
1	I try to be calm and laugh.	2.79 ±1.163	FO
2	I pour out my fears to men of God and friends / family.	2.56 ± 1.150	FO
3	I perform high-level disinfection, and thus I can walk around easily.	2.85 ± 0.957	FO
4	I try to maintain good aeration.	2.78 ±1.026	FO
5	I try to calm myself by breathing gently.	2.34 ± 1.202	S
6	I enjoy the company of colleagues and listen to music.	2.80 ±1.144	FO
Over-all mean		2.69 ±1.173	FO
Depression			
1	I use music to sleep.	1.83 ± 0.901	S
2	I try to eat 3x daily even if its fruits.	2.89 ± 1.132	FO
3	I try to live healthy and use it as weight loss training.	2.13 ± 0.951	S
4	I always encourage myself and family to always believe that everything is well.	2.62 ± 0.733	FO
5	I go to counselling and open up to my partner.	1.63 ± 0.891	S
6	I share my feelings with friends.	2.13 ± 0.942	FO
Over-all mean		2.31 ± 1.012	S
Fear			
1	I use Personal Protective Equipment (PPE) to prevent the risk of acquiring and/or transmitting COVID-19.	2.80 ± 1.131	FO
2	I use COVID-19 prevention guideline/evidence.	2.51 ± 1.122	FO
3	I have faith in God.	2.51 ± 1.132	FO
4	I pray daily to keep my family safe and hope to meet them at the end of work.	2.84 ± 1.091	S
5	I am treated freely and see myself as a hero.	2.48 ± 1.124	S
6	I educate people to follow the guidelines so we can return to normalcy.	2.72 ± 1.173	FO
Over-all mean		2.64 ± 1.123	FO

4 – Very often (VO)/ Very extensive effect = 3.50-4.00, 3 – Fairly often (FO)/ Fairly extensive = 2.50-3.49, 2 – Sometimes (S) = 1.50-2.49, 1 – Almost never (AN) = 1.00-1.49, 0 – Never (N) = 0.1-0.9, SD = Standard Deviation, DE = Descriptive Equivalence

causes discomfort. They sometimes used coping strategies for depression (2.31 ± 1.012), demonstrating moderate variability, and "fairly often" used coping strategies for fear (2.64 ± 1.123), demonstrating significant variability. It suggests that nurses experienced anxiety during a specific phase of their career as healthcare providers, likely due to an infectious disease outbreak and uncertainty about patient care.

Simultaneously, they implemented various coping strategies, such as practicing calmness, listening to music, and other spiritual sources of upliftment. For some nurses, their coping strategies include trust in God or spiritual fellowship, although the overall mean value shows inconsistent results. Similarly, openness and body rest are depression control processes that they recommend to patients daily. Faith in God and the courage to follow the guidelines rejuvenate their minds. The potential applicability of these coping strategies for depression, fear, or anxiety varies among nurses.

Significant Correlation between the Respondents' Psychosocial Stressors and their Sociodemographic Profile

Table 5 shows the aggregate number of significant correlations between different experiences and associated sociodemographic characteristics, highlighting the intricate interactions between these variables. Significant correlations ($p < 0.05$ and $p < 0.01$) were found among notable variables like age, gender, health status, marital status, highest educational attainment, length of service, and previous experience.

Previous experience, highest educational attainment, marital status, and length of service all contribute to isolation. They decrease the feeling of isolation but at the same time enhance the psychosocial stress level, loss of sleep, and nervousness. While previous experience and age have an impact on quarantine, so do feelings of insufficiency and the need to move around. Gender, length of service, and previous experience, as well as feelings of insufficiency and frustration from colleagues, lead to a toxic workplace. We attribute burnout to all the sociodemographic characteristics involved. The length of service, previous experience, and gender all play a role in determining the level of anxiety. Gender, age, length of service, and previous experience are associated with depression, while age, education, length of service, and previous experience were associated with fear.

Significant Correlation between the Respondents' Sociodemographic Profile and the Extent of Stress on their Coping Strategy.

Table 6 highlights the significant correlation between various coping strategies and sociodemographic profiles, emphasizing the complex interplay between these factors. It was found that gender exhibited significant correlation, making it a crucial factor in comprehending the nurses'

Table 5. Significant Correlation between the Respondents' Psychosocial Stressors and their Sociodemographic Profile

		Age	Gender	CS	HEA	LS	PE
Isolation							
1	In the last month, how often have you felt isolated because of the virus?	-0.592	0.0304	-0.005**	0.076	0.999	0.045*
2	In the last month, how often have you felt that you could not control essential things and get hostile due to isolation?	-0.355	-0.004**	-0.075	-0.360	-0.002**	0.000**
3	In the last month, how often have you felt nervous and stressed, and lost sleep?	0.112	0.120	-0.828	-0.174	0.353	0.004**
4	In the last month, how often have you been uncomfortable having been isolated from loved ones?	-0.040*	0.481	0.417	-0.452	0.923	0.050*
5	In the last month, have you felt different from being isolated with weird thoughts?	-0.054	-0.580	-0.358	-0.041*	-0.061	-0.027*
6	How often have you felt the need to go out like usual and do things in the last month?	-0.316	0.607	-0.000**	-0.675	0.962	-0.062
Quarantine							
7	In the last month, how often have you been placed on quarantine?	0.000**	-0.447	-0.209	0.294	-0.873	0.005**
8	In the last month, how often have you been in contact with infected persons?	-0.288	-0.115	0.824	0.163	-0.475	-0.511
9	How often have you felt the need to go out like usual and do things in the last month?	0.055	0.003**	0.156	0.740	0.000**	0.003**
10	In the last month, how often have you had inadequate supplies?	-0.398	-0.000**	-0.925	0.155	-0.026*	-0.000**
11	In the last month, how often have you had inadequate information?	0.874	0.035*	0.513	0.169	0.000**	0.007**
12	In the last month, how often have you felt boredom with stigmatization?	0.579	0.000**	-0.614	0.225	0.000**	0.000**
Burnout							
13	In the last month, how often have you felt energy depletion?	0.084	0.568	0.014*	0.014*	0.000**	0.003**
14	In the last month, how often have you felt increased mental distress from your job?	0.248	0.000**	0.614	0.225	0.000**	0.000**
15	In the last month, how often have you felt negative feelings about your job?	0.742	0.218	0.104	0.091	0.021*	0.225
16	In the last month, how often have you felt reduced professional efficiency?	0.036*	0.350	0.160	0.099	0.000**	0.000**
17	In the last month, how often have you felt fatigued at work?	0.312	-0.731	0.077	0.060	0.005**	0.055
18	In the last month, how often have you felt irritable with your schedule?	0.006**	0.003**	0.450	0.158	0.000**	0.000**
Toxic workplace							
19	In the last month, how often have you felt more than you can bear due to toxic duties?	-0.032*	0.000**	-0.513	0.192	0.124	-0.357
20	In the last month, how often have you felt fear from insufficient facilities?	0.429	0.000**	-0.721	0.126	0.064*	0.942
21	In the last month, how often have you felt restless?	-0.750	-0.000**	-0.721	-0.126	0.064	-0.942
22	In the last month, how often have you felt the inability to eat due to the high influx of patients?	-0.241	0.000**	-0.164	-0.307	0.000**	0.512
23	In the last month, how often have you felt frustrated by your colleagues?	0.714	-0.210	0.700	-0.228	0.040*	-0.016*
24	In the last month, how often have you felt back pains from excess standing and work?	-0.931	-0.243	0.414	0.077	0.000**	-0.567
Anxiety							
25	I feel my heart pounding/racing.	0.956	0.001**	-0.230	0.152	0.000**	0.001**
26	I feel nervous, my hands are trembling shaky, and unstable.	-0.147	0.141	0.099	-0.052	0.000**	-0.022*
27	I usually experience a sensation of numbness or tingling when I am physically at work.	0.407	0.575	-0.378	-0.194	0.027*	-0.693
28	I experience hot/ cold sweats.	0.265	-0.296	0.845	-0.147	0.173	-0.174
29	I find it difficult to breathe.	-0.501	-0.942	-0.799	-0.364	0.005**	0.355
30	I feel lightheaded.	0.120	0.000**	-0.651	-0.074	0.0384	0.001**
31	I usually have a face flush.	0.957	0.039*	-0.630	-0.482	0.300	0.359
32	I am unable to relax.	-0.042	-0.024*	-0.026	0.029	-0.070**	-0.024

Table 5. Significant Correlation between the Respondents' Psychosocial Stressors and their Sociodemographic Profile *(continued)*

		Age	Gender	CS	HEA	LS	PE
Depression							
33	I find it difficult to sleep.	0.058	0.959	-0.744	0.210	-0.275	0.000**
34	I usually have appetite issues.	0.984	-0.759	-0.252	0.061	0.518	0.004**
35	I do lose weight.	0.007**	0.000**	0.600	-0.194	0.000**	0.000**
36	I am usually worried about my health and that of my family.	0.984	0.011*	-0.601	-0.137	0.083	0.104
37	I cannot concentrate on thinking or engaging in sexual activities.	0.148	0.033*	-0.688	-0.374	0.821	0.048*
38	I lost interest in work and people, and I feel sad.	0.623	-0.017*	-0.959	0.828	0.340	0.551
Fear							
39	I am terrified of contracting the virus.	0.004**	0.000**	0.192	-0.477	0.000**	0.000**
40	I am terrified of infecting my family daily.	-0.213	0.000**	0.673	-0.021*	0.000**	0.118
41	I fear that I might die.	-0.738	0.000**	-0.573	-0.011*	0.000**	0.030*
42	I fear that I might never get to see my family again.	0.395	0.000**	0.005**	-0.034*	0.058	0.001**
43	I fear that people would isolate me.	0.719	0.001**	-0.102	-0.398	0.001**	0.817
44	I fear that life may never get back to normal anymore.	-0.622	0.051	0.204	-0.645	-0.002**	0.023*

** = significant at 0.05, ** = highly significant at 0.01, + = positive relationship, – = negative relationship. The p-value is used to associate the correlation.*

Table 6. Significant Correlation between the Respondents' Sociodemographic Profile and the Extent of Stress on their Coping Strategy

		Age	Gender	CS	HEA	LS	PE
Anxiety							
1	I try to be calm and laugh.	0.724	0.000**	-0.027*	0.411	0.469	0.001**
2	I pour out my fears to men of God and friends /family.	0.358	0.000**	-0.797	0.147	-0.352	0.466
3	I perform high-level disinfection, and thus I can walk around easily.	-0.053	-0.371	-0.456	-0.977	-0.981	-0.018*
4	I try to maintain good aeration.	-0.472	0.001**	0.708	-0.136	0.335	-0.409
5	I try to calm myself by breathing gently.	0.177	0.050*	0.036*	-0.190	-0.512	0.112
6	I enjoy the company of colleagues and listen to music.	-0.238	0.765	-0.444	-0.423	-0.195	-0.171
Depression							
1	I use music to sleep.	0.638	-0.000**	0.541	-0.067	-0.231	-0.636
2	I try to eat 3x daily, even if it's fruits.	0.865	-0.000**	-0.915	-0.110	-0.048*	0.998
3	I try to live healthily and use it as weight loss training.	-0.443	-0.001**	-0.032*	-0.639	-0.000**	-0.006**
4	I encourage myself and my family always to believe that everything is well.	-0.011*	-0.000**	-0.829	-0.585	-0.010**	-0.003**
5	I go to counseling and open up to my partner.	-0.027*	-0.000**	-0.214	0.984	-0.158	-0.100**
6	I share my feelings with friends.	-0.037*	-0.000**	-0.004**	0.804	-0.073	-0.049*
Fear							
1	I use all Personal Protective Equipment (PPE) to prevent the risk of acquiring and transmitting COVID-19.	-0.004**	-0.000**	-0.016*	-0.590	-0.000**	-0.000**
2	I use COVID prevention guideline/evidence.	-0.317	-0.000**	-0.045*	-0.570	-0.000**	-0.000**
3	I have faith in God.	-0.179	-0.000**	-0.059	-0.570	-0.000**	-0.000**
4	I pray daily to keep my family safe and hope to meet them at the end of work.	-0.002**	-0.000**	-0.127	0.538	-0.000**	-0.000**
5	I am treated freely and see myself as a hero.	0.740	-0.000**	-0.002**	0.625	-0.000**	-0.001**
6	I educate people to follow the guidelines so we can return to normalcy.	-0.038*	-0.000**	-0.165	-0.519	-0.000**	-0.000**

** = significant at 0.05, ** = highly significant at 0.01, + = positive relationship, – = negative relationship. The p-value is used to associate the correlation.*

coping strategies for anxiety, depression, and fear. Male nurses tend to handle these stressors more effectively compared to female nurses. Age, marital status, and previous experience frequently exhibit significant correlations, underscoring their significance in coping strategies.

DISCUSSION

The COVID-19 outbreak has put enormous pressure on nurses at the frontlines of the healthcare system, affecting their psychosocial health. During the COVID-19 pandemic, nurses treat patients with acute illnesses.[23] Their job undoubtedly exposes them to psychosocial consequences and a variety of health risks, particularly in emergency services.[24] A variety of contributing factors primarily cause psychosocial stressors. Interestingly, the findings revealed that seclusion from loved ones tends to affect nurses' psychological and mental wellbeing, and that nurses experience quarantine as a much more uncomfortable experience than isolation in the COVID-19 pandemic. To reduce the impact of viral dissemination within the healthcare system, quarantine and isolation were frequently implemented in towns impacted by Severe Acute Respiratory Syndrome (SARS) in the 2000s. However, a Canadian study found that confinement also caused emotional suffering.[9] The same study showed that medical staff who treated COVID-19-positive patients were susceptible to psychological stress.[9] As a result, to lessen the psychosocial stress brought on by quarantine, several issues must be resolved, such as dispelling the stigma attached to it, developing, and providing a reliable and efficient platform for communication with the population of mixed cultures, and attending to psychological issues such as boredom that arose during Toronto's 2003 SARS pandemic.[25]

The results indicate that individuals frequently experienced anxiety-related problems, as opposed to occasionally experiencing depression and fear-related issues. The uncertainty surrounding the healthcare profession, particularly during unknown disease outbreaks, has led to psychological stressors. A study revealed that poor sleep has a negative impact on nurses' health, and this indirectly triggers depression symptoms.[26] According to a study by student nurses in Malawi, the absence of patient care guidelines and personal protective equipment (PPE) can make nurses fearful, which can affect their ability to do their duties.[27]The study's results may be compared to a study conducted by Zheng et al.[28]with Chinese student nurses, who found a direct correlation between COVID-19 stress and feelings of anxiety, depression, and perceived health. Depression is therefore frequently seen in nurses employed in high-risk COVID-19 facilities, just as it is in low-risk units. Nurses experience low anxiety on average, according to the study, which also reveals a substantial correlation between anxiety, gender, and number of children. Women report higher levels of worry than males do, while nurses without children express mild, moderate, or severe anxiety.[29]

The findings showed that previous experience, education attainment, marital status, and length of service contribute to isolation, with a significant correlation in health status, gender, and the remaining sociodemographic characteristic contributing to burnout among nurses. This is consistent with a study that surveyed six hemodialysis nurses in Butuan City, Philippines, and found that there was a significant correlation between their sociodemographic characteristics and their intrapersonal and interpersonal burnout characteristics, as well as a significant correlation between their care and fewer personal accomplishments and patient care.[15] One-fourth of younger females and single individuals experience burnout in demanding job conditions, according to a different survey of Indian healthcare professionals. It suggests that burnout among nurses at Parklane Hospital in Enugu reflects the difficulties faced by nurses in the healthcare system, which is consistent with the study's findings.[30] Results showed that age, gender, length of service, and previous experience affect anxiety levels, whereas age, education attainment, length of service, and previous experience cause fear, while gender, age, length of service, and previous experience cause depression. It aligned with [31]studies that indicate a robust correlation between the quality of sleep, stress, anxiety, depression, and even fear of contagion among nurses during the COVID-19 pandemic.

The concerns related to anxiety, depression, and fear were addressed by coping strategies that were emphasized in the results. They often used a variety of coping strategies to deal with their anxiety, including music listening, mindfulness exercises, and other spiritual sources of inspiration. In a similar vein, depressed nurses constantly embraced rest, transparency, and faith in God. During an outbreak, fear of infection is a common problem for nurses. Concern emerges as the primary issue in roles related to part-time employment. The most important degree of problem-solving to reduce stress and, consequently, job dropout is work satisfaction, as it improves frontline nurses' job outcomes in many ways.[32] Implementing resilience training programs can improve healthcare professionals' psychological well-being on an individual, professional, and organizational level, according to a different study from the Philippines. Resilient nurses have faith in their ability to overcome obstacles in a demanding hospital setting and to bear the strain of anxiety, fear, and depression.[33] A study conducted on Saudi Arabian nurses during COVID-19 highlighted psychological stress and anxiety issues. Conversely, they implemented regular monitoring systems for nurses, created educational programs, and considered preventive care as an intervention tactic.[34]

The nursing negligence indicates that a close assessment of psychological stressors (depression, anxiety, etc.) improves their psychological well-being. The findings revealed that gender has a strong and significant correlation in terms of coping strategies for fear, anxiety, and depression, as well as age, marital status, and previous experiences. The study on nurses in the Gaza Strip during the COVID-19 pandemic revealed

a significant correlation between female nurses' anxiety about viral infection and their ability to overcome fear, anxiety, and depression. It also corresponds with depression, anxiety, and self-worth because medical professionals usually have experience working in healthcare environments.[35] Additionally, the[36] study among Saudi nursing students during COVID-19 revealed a correlational link that suggested a moderate risk perception and fear of getting the virus, along with levels of stress, anxiety, and depression. Surprisingly, the results of this study are consistent with the regular use of spirituality as a coping strategy. Conclusively, evidence from the study showed that nurses' psychological growth and coping strategies both play a crucial role in maintaining their mental health.[37]

Limitations

The study only included healthcare workers, especially nurses, who were present at the medical facility at the time of data collection because to COVID-19 pandemic restrictions. The research designated samples for each stratum using enumeration and snowball sampling approaches, ensuring that participants from different health departments or facilities were excluded. Unfortunately, because of the large number of respondents, incomplete questionnaire retrieval resulted in minor biases in the data collection procedure. A psychologist was not employed by the study to investigate the respondents' psychological attitudes. The exclusion criteria restricted professional discipline in the field of data gathering. Potential limitations in the existing literature may restrict the study's use of the adopted data tool. To address this issue, experts in the field validated the tool, both externally and internally.

CONCLUSIONS AND RECOMMENDATIONS

Female nurses were predominantly discovered ranging within the age 40 to 46, and they experienced challenging moments that emerged from quarantine, isolation, and burnout-related problems collectively because of their sociodemographic characteristic. There was a noticeable variation in the problems associated with anxiety, depression, and recurrent fear due to uncertainty in their profession. The nurses consistently and fairly employed coping strategies for anxiety, fear, and depression. Nurses experienced uncertainty regarding patient care and concern during the COVID-19 pandemic and thus employed different coping strategies; some involved body relaxation, spiritual uplift, music, and calm practice, while others involved openness and other forms of spiritual stimulation. A significant correlation between sociodemographic characteristics and psychosocial stressors was discovered. The findings revealed that gender has a strong and significant correlation in terms of coping strategies for fear, anxiety, and depression, as well as age, marital status, and previous experiences.

To lessen the psychological and social repercussions of virus outbreaks, the study advises that public health care institutions prioritize preparedness and assign more male nurses to work alongside female nurses. The resilience of male nurses against depression implies that they could assist female nurses in managing various psychosocial stressors. During the pandemic, psychosocial issues such as depression, anxiety, and fear affect nurses and should be a critical concern in the healthcare system. Prioritizing advocacy and educational training about infection and illness outbreaks and their impact on patient care roles and healthcare should be a top priority for healthcare managers. Nurses utilize a range of coping strategies, including listening, maintaining composure, and communicating effectively.

Generalizability

The results of this study are based on a sample of 413 healthcare workers at the Parklane, Nigeria-based Enugu State University Teaching Hospital. The sample was chosen by the researcher using snowball sampling techniques, which guaranteed that it correctly reflected the sociodemographic profile. However, the generalizability of these findings may be constrained by specific conditions. Initially, the research was limited to healthcare professionals working in metropolitan regions, perhaps leaving out the perspectives of those in rural areas with distinct environments. It was necessary to confirm whether the results held true in studies carried out in different areas. The study's population might not accurately represent the diversity seen in other healthcare systems around the world, even with such a large sample size. The psychosocial impact of COVID-19 on healthcare workers may vary depending on national healthcare policy, illness epidemics, and cultural factors.

The findings of this study are in line with those of other research projects carried out in comparable geographic areas, suggesting that the patterns in burnout, anxiety, depression, and coping strategies that have been noted may not be specific to the study's sample. To improve the generalizability of these results, future research should strive to include a more varied spectrum of individuals, including those from various socioeconomic backgrounds and healthcare situations. In conjunction, although the Enugu State University Teaching Hospital in Parklane, Nigeria provides insightful information about the psychosocial effects of COVID-19 on healthcare workers, it is crucial to use caution when generalizing the study's findings to different demographics and environments. The investigator suggests conducting additional research to investigate similar phenomena in various settings and confirm the wider relevance of these conclusions.

Acknowledgements

Everyone who put in the effort to make this paper feasible deserves my gratitude. To the Dean, Dr. Faridah Kristi Wetherick, Dr. Alfredo Vinlian, Dr. Frances Claire Celino, Dr. Guadelia A. Reyes, and Dr. Alex Alcantar A., I want to convey my thanks to Dr. Regina Lourdes B. Hipol, the Graduate Program Coordinator for Natural Sciences at Saint Louis University in Baguio, and Dr. Faridah Kristi

Wetherick, Dean of the School of Advanced Studies. I wish to express my deep gratitude to my parents, Mr., and Mrs. Nwanwuna B.A., as well as to my siblings, Augustus, Kingsley, and Rosemary. My sincere appreciation to beloved uncle Chris Ndubuisi for his unwavering support, compassion, and confidence in her. They have provided enormous spiritual, moral, and material assistance. Lastly, thank you to everyone who contributed a peer review for the Acta Medica Philippina, including Dr. Stephen A. Fadare, Nnadi L. Echerou (RPh), and anonymous reviewers. In addition, we would like to thank all the study participants on behalf of the team.

Statement of Authorship

Both authors certified fulfillment of ICMJE authorship criteria.

Author Disclosure

Both authors declared no conflicts of interest.

Funding Source

None.

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