ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VII Issue II February 2023

Psychosocial Impact of Covid-19 Disease on Nurses in Federal Medical Centre, Asaba.

Ezunu N E[1], Ezunu E O[2], Ojimba AO[3], Agbele T[1], Egeonu J[3], Osihro A H[3], Onyemushani U[3], Abdulkarim S[3], Wayemeru OE[3], Okey-ezufo C[3], Okorhi Unique Eguolo[1], Oyakhire Clementina Omole[1], Eze-otulaka C[3], Inegbejie F[3], Clever A[3], Ofomata D[3], Onubogu N[3], Okpomo P[3], Aigbokhaode A Q[4], Ugoeze F[2], Osiatuma V A[5], Jisieike O N[7], Efe EO[8]. Adaigho I[6], Avon A P[7]

[1]Department of Nursing, Federal Medical Center, Asaba, Nigeria

[2]Department of Internal Medicine, Federal Medical Center, Asaba, Nigeria

[3]CCDRC federal Medical Centre, Asaba, Delta State, Nigeria

[4]Department of Public Health, Federal Medical Centre Asaba, Nigeria

[5]Department of Radiology, Federal Medical Centre, Asaba, Nigeria

[6]Department of Psychiatry, Federal Medical Centre, Asaba, Nigeria

[7]Federal Medical Centre, Asaba, Delta State, Department of Health information Management, Nigeria

[8]Federal Medical Centre, Asaba, Delta Department of Pediatrics, Nigeria

ABSTRACT

Introduction: The psychosocial influence of the coronavirus pandemic is serious for Frontline health professionals including nurses because of a higher level of exposure. Nurses are often faced with a psychological burden as a result of work demands. This study aimed to investigate the psychosocial impact of Covid-19 on nurses in the Federal Medical Centre, Asaba, Delta State, Nigeria.

Methods: Institution-based cross-sectional study was conducted from 6th April 2021 to 4th March 2021. A total of 180 nurses were selected using a simple random sampling technique. A structured self-administered questionnaire on the DASS-21score and COVID-19 fear scale was used to collect data. The data were entered and analyzed using SPSS version 25. Univariate analysis of Psychological variables of depression, anxiety, and stress was calculated and bivariate analysis of sociodemographic and psychosocial variables was carried out.

Results: A total of 180 participants with a mean age of 36.63±7.93 years were recruited. Forty-four males and one hundred and thirty-six females were included in the study. The prevalence of moderate depression, extremely severe anxiety, and severe stress among nurses was 11.1%, 11.1%, and 5.6%, respectively. Married Nurses were found to have more psychosocial consequences during the COVID-19 period, with a p-value of 0.001 (depression), a p-value of 0.015(anxiety), and a p-value of 0.003(stress).

Conclusion: The Burden of Mental Health among Nurses during the COVID-19 period was critical. Fear of infecting family, restrictions, presence of confirmed/ suspected cases with fear of losing them, and disruption of personal life activities increase the risk of developing depression, anxiety, and Stress. The government to develop and implement national programs for occupational, mental health, and safety in the workplace.

Keywords: Psychosocial- Impact-COVID-19-Nurses

INTRODUCTION

Coronavirus Disease 2019 (COVID-19) is a sickness caused by a new coronavirus (SARS-CoV-2). The World Health Organization (WHO) characterized the outbreak as a pandemic on March 11, 2020, as cases

have been detected in most countries worldwide. As of April 2021, there have been 138,021,474 laboratory-confirmed coronavirus cases, including 2,971,130 deaths worldwide according to Johns Hopkins University. The International Council of Nurses (ICN 2020) stated that more than 600 nurses around the world have died from COVID-19 until 3 June 2020. The first incident of COVID-19 was confirmed in Nigeria on 29 February 2020 which was the first one to be reported since the beginning of the outbreak in China in December 2019. According to the Nigerian Center for Disease Control in Nigeria, there were 164,000 COVID-19 reported cases and 2061 deaths in Nigeria as of April 2021.

The illness not only affects physical health but also mental health and well-being (Ahorsu DK et al 2020). Mental health and psychosocial outcomes of the COVID-19 pandemic may be particularly serious for healthcare workers especially nurses because of a higher level of exposure. A poorly known infectious disease outbreak, like COVID-19, leads to inevitable stress, depression, fear, and anxiety that can be intense among higher-risk groups, such as healthcare professionals. The mental well-being of frontline healthcare workers can be negatively affected by fear of being exposed to COVID-19 cases in hospitals (Green berg Net al 20 20). Their psychology can be worsened by separation from families and confronting the death or illness of patients from COVID-19. During the pandemic, nurses are at significant risk of adverse mental health consequences resulting from inadequate clinical knowledge of the virus, long working hours, risk of infection, insufficient provision of protective equipment, loneliness, physical fatigue, and separation from families.

Nurses often face huge psychological pressure as a result of workload, long hours, and working in a high-risk environment (E Mekonen, B Shetie, et al 2021). Although anxiety, depression, and distress symptoms can also be found at high levels in the general population. Some groups can be more vulnerable than othersin the general population due to the psychosocial effects of pandemics; – These would be people who contract the disease, those with high infection risk; people with preexisting medical, psychiatric, or substance use problems. They are at increased risk for adverse psychosocial outcomes, as well as health care providers. The non-frontline healthcare workers are considered essential workers (Sumit Thakar, Shareyas Singh, et al, 2021) because both are directly exposed to the virus and the psychosocial consequences derived from its propagation. They are also vulnerable, given their risk of exposure to the virus, concern about infecting and caring for their loved ones, shortages of personal protective equipment (PPE), longer work hours, and involvement in emotionally and ethically anxious resource-allocation decisions. Early research conducted on the Chinese population (Lai J, et al 2020) shows that a significant proportion of healthworkers have depression symptoms (50.4%), anxiety (44.6%), insomnia (34%), and discomfort (71.5%).This evidence makes us consider it highly relevant to focus on this population.

Healthcare workers working in close contact with covid-19 patients are made susceptible to adverse mental health consequences. Increased workload, fear of infection, frustration, physical exhaustion, and inadequate personal equipment had a substantial influence on the mental health of healthcare providers (Gonzalo Salazar de Pablo et al, 2020). Staff that has direct contact with the affected patients (covid-19 patients) showed a greater level of both acute or post-traumatic stress and psychological distress compared with lower-risk controls (Steve Kisely et al 2020).

Moreover, recent research from the initial phases of the covid-19 outbreak in china has suggested that there has been a more significant psychological impact on the general population than the second wave (Jianying Qiu et al, 2020). The leading causes of mental ill health were due to self-isolation; which intensifies loneliness and reduces the sense of connectedness, purpose, and meaning in personal lives, job insecurity, financial implications, the capacity of health services, and infections.

For example, individuals who are concerned about becoming infected or about the availability of healthcare may be at risk of developing health-related anxiety or obsessive health behavior (Adam Abba-Aji et al, 2020: Gordo J G Asmundson, StevenTaylor, 2020: Shannon M Blakey and Jonathan S Abramowitz 2017).

In the current outbreak of COVID-19, nurses had to face an irregular number of prospective or supposed patients. In such high-risk environments, the nurse was more likely to experience psychosomatic agony. In addition, 40.3% of the frontline nurses were treated differently in this study because of working in a hospital where the staff was at a higher risk of potential infection. It was also reported in another study that people were afraid to meet with nurses or doctors because they thought medical workers would carry the virus to them (Hewlett & Hewlett, 2005). To avoid possibly infecting, the greatest of the frontline nurses were avoided by their families, friends, and coworkers. Thus, frontline nurses had to deal with not only the epidemic of COVID-19 but also their worry for their families and stigmatization from the community. It could also lead to psychological stress, depression, and anger.

The psychological impacts suffered by Health care workers especially Nurses working on the front line in the first and second waves have been evaluated (Batra K., Singh T.P, et al, 2020: Li H., Zhang Y., Wang H., et al 2020). The results are consistent with those of a quantitative systematic review (De Pablo G.S., Vaquerizo-Serrano J., et al (2020) which examines the psychological effects in the first wave and emphasized that fear is seen more by nurses as the main psychological manifestation of anxiety anddepression when compared to the second waves. Other reviews that analyze the first waves of the pandemic, found that stress, anxiety, and depression had more impacts on front-line healthcare workers (Batra K.,Singh T.P, et al, 2020: Salari N., Khazaie H., Hosseinian-Far A., et al 2020). These differences may be because this quantitative review analyzes the early psychological impacts of front-line professionals, which can be sustained over time, while new symptoms appear as the pandemic evolves. As previously noted (Muñoz-Fernández S.I., Molina-Valdespino D, et al (2020), the initial stress that professionals are subjected to in the face of the COVID-19 pandemic can evolve and manifest itself in different ways while healthcare personnel is exposed to this health emergency. Our findings follow this line may be due torestrictions/locked down were relaxed and many people including healthcare workers thought that thepandemic will soon be over. More studies would be necessary to confirm whether these changes were maintained during the different stages of the pandemic.

Despite this fact, no studies on the epidemiology of depression, anxiety, and stress in nurses have been conducted in the study area. Therefore, this study is intended to assess the psychosocial impact of the second wave of COVID-19 among Nurses at Federal Medical Centre, Asaba Nigeria.

METHODOLOGY

We conducted a descriptive cross-sectional study of nurses in the Federal Medical Centre, Asaba (Odenigbo, O.O. 2015), in April 2021 for one month period. They were 180 male and female nurses in allthe units of the hospital irrespective of their ages, cadre, and years of experience in nursing practice.

The following were included in the study;

1. Nurses who have been in the employment of Federal Medical Centre for not less than 6 (six) months.
2. Nurses who were not in any way incapacitated.
3. Nurses who were willing to dispense information.
4. Nurses who gave consent and their confidentiality maintained.
5. Nurses who did not give consent were excluded from the study.

The sample size for the study was determined by using the formula for simple proportions **(**Franklin Chibuacha et al2021).

SAMPLE SIZE AND SAMPLING METHOD.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VII Issue II February 2023

The sample size for the study was determined by using the formula for simple proportions.

[N= $\underline{Z^2\ PQ}$] **(**Franklin Chibuacha et al2021)

D^2

Where:

N = the desired sample size

Z = the standard normal deviation usually set at 1.96 (or more simply at 2), this corresponds to the 95 percent confidence level.

P = the proportion in the target population estimated to have a particular characteristic was 87.9% (0.879) (lonia Mwape et al 2022) as the proportion of nurses that had psychosocial influences during the COVID-19 period in a study carried out in Zambia.

Q = 1.0-P = 0.121

D = Degree of accuracy desired, usually set at 0.05

$N = \underline{1.96^2\ (0.879)\ (0.121)}$

0.05^2

$= \underline{3.8416 \times 0.879 \times 0.121} = 163.44$

0.0025

163.44+ 10% non-response ratio

N = 163.44 $_+$ 16.34 =179.78=180

The total sample size will be determined by nurses in the FMC nominal roll which is 495 the respondents will be sampled by using simple random sampling or systematic sampling. Proportional allocation will be used in sharing the sample size. Nurses=495

Therefore;

Sample size/total number of respondents = proportionate ratio

Proportionate ratio = 180/495=0.364

Proportionate ratio = 0.364

Nurses=495x 0.364= 180.18 Ω 180.

To get a true representation of the responses of all nurses in different arms in the hospital the calculated number will be used in the different units.

Neonatal unit-21/495×180= 7.63 Ω 8 nurses

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VII Issue II February 2023

Labour unit=23/495×180= 8.36 Ω 8 nurses.

Male Surgical Ward-1=15/495×180= 5.45 Ω 6 nurses.

Male Medical Ward=17/495×180 =6.18 Ω 6 nurses

Female Medical Ward=19/495×180= 6.90 Ω 7 nurses

Children Ward-1=15/495×180= 5.45 Ω 6 nurses

Children Ward-2=15/495×180= 5.45 Ω 6 nurses

Amenity ward=16/495×180 =5.18 Ω 5 nurses

Female Medical Annex=8/495x 180= 2.90 Ω 3 nurses

Male Medical Annex=8/495x 180=2.90 Ω 3 nurses

Intensive Care Unit=14/495×180= 5.09 Ω 5 nurses

Renal Unit=7/495×180=2.54 Ω 3 nurses

Main theatre-=4/495×180= 12.36 Ω 12 nurses

Gynae. Ward=14/495×180=5.09 Ω 5 nurses

Female Orthopedic Ward=15/495×180=5.45 Ω 6 nurses

Eye clinic=16/495×180=5.81 Ω 6 nurses

Accident &Emergency Unit=26/495×180=9.45 Ω 9 nurses

General out Patient Clinic=19/495×180= 6.90 Ω 7 nurses

Antenatal Clinic=7/495×180= 2.54 Ω 3 nurses

Female Surgical Ward=15/495×180=5.45 Ω 6 nurses

Family Planning Unit=4/495×180= 1.45 Ω 1 nurse

Children out Patient Clinic=8/495×180 =2.90 Ω 3 nurses

Post-Natal Ward=13/495×180=4.72 Ω 4 nurses

Obstetric & Gynae Ward=15/495×180=5.45 Ω 6 nurses

Children Emergency Unit=17/495×180= 6.18 Ω 6 nurses

Surgical Post-Natal Unit=16/495×180=5.81 Ω 6 nurses

Pathology Unit=1/495×180=0.36 nil

Public Health Unit-9/495×180=3.27 Ω 3 nurses

Anesthesia Unit=11/495×180= 4.00 Ω 4 nurses

National Health Insurance Clinic=6/495×180=2.18 Ω 2 nurses

Immunization Unit=6/495×180=2.18 Ω 2 nurses

Antenatal Ward=-13/495×180= 4.72 Ω 4 nurses

Injection Room=8/495×180 =2.90 Ω 3 nurses

Nursing administrative Unit=4/495×180 = 1.45 Ω 1 nurse

Male Orthopedic Ward=13/495×180=4.72 Ω 5 nurses

Male Surgical Ward-2=14/495×180=5.09 Ω 5 nurses

Isolation Ward=11/495×180=4.00 Ω 4 nurses

Mental health Unit=2/495×180= 0.72 Ω 1 nurse

One hundred and eighty nurses were given questionnaires so that various units above were represented. Therefore a total of 180 nurses were interviewed with a structured questionnaire.

STUDY DURATION: The study duration was from 6th April 2021 to 4th March 2021.

Method and Instrument for data collection

Data was collected with the use of a structured questionnaire on the psychosocial impact of the second wave of the COVID-19 outbreak on nurses in the Federal Medical Centre, Asaba. A standardized questionnaire was used by the researchers on the DASS-21score and COVID-19 fear scale (Ahorsu DK, 2020) respectively for measuring depression, anxiety, and stress scale) and fear.The DASS-21 was developed by Lovibond, S.H. & Lovibond, P.F. (1995). The Depression, Anxiety, and Stress Scale – 21 Items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety, and stress. It contains three domains (Depression, Anxiety, and Stress) with each consisting of seven items (Teris Cheung SFY et al 2015). The DASS-21 has been validated as a reliable tool to identify symptoms in thethree highlighted domains and for use in clinical and non-clinical samples. In addition, it has been found to possess well-established psychometric properties which reliably measure depression, anxiety, and stress (ata Cronbach's alpha 0.91, 0.84, and 0.90 respectively), and can differentiate between depression, anxiety,and stress (Lovibond, S.H. & Lovibond, P.F. (1995), (Crawford, J.R. and Henry, J.D, 2003), (Osman, A., Wong, J.L, et al 2012).

Scores on the DASS-21 was multiplied by 2 to calculate the final score' Respondent who score below 8 on the Anxiety Scale – 21 Items (DASS-21) were considered as having no anxiety and those who score 8 and above were considered as having anxiety. Those who had a below 10 score on the Depression (DASS-21) were considered as having no depression and those who scored 10 and above were considered as having depression. Nurses who had a score below 15 on Stress (DASS-21) were considered as having no stress and those who scored 15 and above were considered as having anxiety.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VII Issue II February 2023

The administration of the questionnaires was done on a face-to-face basis, after which they were retrieved by the researchers from the participants upon collection.

Method of data analysis

The data was collected and analyzed using Statistical Package for Social Sciences (SPSS), Version 25 and the result was presented using descriptive and inferential statistics. With the help of a statistician, aunivariate analysis was carried out quantitative variables were presented using mean and standard deviation, and a bi-variate analysis was carried out between the socio-demographic variables and Psychosocial variables of depression, anxiety, and stress. Levels of significance were set at P value < 0.05.

ETHICAL ISSUES/CONSIDERATION

Ethical permission to conduct this research was gotten from the Research and Ethics Committee and the due processes in carrying out research in the hospital were maintained. No harm or discomfort to the participants during the questionnaire distribution was allowed. Privacy was upheld and not abused during the conduct of the research. The code of ethics was aimed at protecting the rights of individuals that were used as subjects of the research. Respondents were not forced into participating in the research project. Written informed consent was obtained from all participants. Information used from other studies was properly acknowledged. All financial expenses were solely the researcher's obligation.

RESULTS

Table 1: Demographic characteristics of the respondents

Variables	Frequency n=180	Percentage (%)
Gender		
Male	44	24.4
Female	136	75.6
Age(years)	**Mean = 36.63 ± 7.93**	
<=25years	9	5
26-30years	34	19
31-35years	53	29.4
36-40years	36	20
41-45years	22	12.2
46-50years	16	8.9
51-55years	8	4.4
56years & above	2	1.1
Marital Status		
Single	45	25
Married	132	73.3

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume VII Issue II February 2023

Divorced	3	1.7
Educational Qualification		
Diploma in Nursing	47	26.1
BSc in Nursing	107	59.4
MSc in Nursing	26	14.4
Rank		
DDNS	2	1.1
ADNS	7	3.9
CNO	15	8.3
ACNO	20	11.1
PNO	25	13.9
SNO	44	24.4
NO1	47	26.1
NO11	19	10.6
INTERN	1	0.6
Duration of Service		
1-5years	61	33.9
6-10 years	49	27.2
11-15 years	29	16.1
16-20 years	18	10
21years & above	23	12.8
Religion		
Christianity	167	92.8
Islam	7	3.9
African traditional	6	3.3
Co-Morbidity		
Diabetes mellitus	5	2.8
Hypertension	11	6.1
Respiratory disease	9	5
Arthritis	10	5.6
None	145	80.5

The 180 respondents studied comprised 44 male (24.4%) and 136 female nurses (75.6%) with a male-to-female ratio of 1: 3.1. Their ages ranged between 19-59 years with a mean of 36.63±7.93 years

Many (29.4%) of the nurses were young adults between 31-35 years of age. One hundred and seven (59.4%) of them completed a Bachelor of Science in Nursing degree with the rank of Nursing Officer1 (26.1%). Sixty-one respondents had a duration of service under five years and the majority (73.3%) of them were married. One hundred and sixty-seven (92.8%) were Christians and had no comorbidities. (Table 1)

Table 2: Degree levels of Depression, Anxiety, and Stress among FMC Asaba Nurses during Covid-19 (DASS-21 Scales)

Degree levels	**Depression %**	**Anxiety**	**Stress**
Normal	129 (71.7)	109(60.6)	153(85)
Mild	18(10)	26(14.4)	7(3.8)
Moderate	20(11.1)	16(8.9)	9(5)
Severe	6(3.3)	9(5)	10(5.6)
Extremely severe	7(3.9)	20(11.1)	1(0.6)
Total	**180(100)**	**180(100)**	**180(100)**

Nurses had various degrees of moderate (11.1%) depression, mild(11.1%) extremely severe anxiety, and severe(5.6%) stress levels during the COVID-19 period. (table 2).

Table 3: Likert –scale on fear

Variables	Strongly Agree%	Agree%	Neutral%	Disagree%
I am afraid of corona	24(13.3)	83(46.1)	40(22.2)	33(18.3)
I am uncomfortable to think about corona	27(15)	82(45.6)	38(21.1)	33(18.3)
I am afraid of losing life because of corona	27(15)	72(40)	44(24.4)	37(20.6)
Corona makes me nervous when I watch stories on social media	33(18.3)	65(36.1)	41(22.8)	41(22.8)
I can't sleep because I worry about getting corona	11(6.1)	44(24.4)	68(37.8)	57(31.7)
I can't sleep because I worry about getting Corona	12(6.7)	58(32.2)	55(30.6)	55(30.6)
I am afraid my family will get Covid -19	16(8.9)	72(40)	42(23.3)	50(27.8)
I am afraid of the two quarantines if I get				

in contact with an infected person	30(16.7)	69(38.3)	36(20)	45(25)
I am afraid I will be abhorred by colleagues if I get infected	24(13.3)	61(33.9)	47(26.1)	48(26.7)
I am afraid my family will abhor me if get the disease	16(9.8)	52(28.9)	50(27.8)	62(34.4)
Because of fear of infection, I am limited in where I go	27(15)	86(47.8)	26(14.4)	41(22.8)
Covid seriously disrupting my official schedule and plan	35(19.4)	67(37.2)	28(15.6)	50(27.8)
My sleeping schedule has become irregular since the Covid outbreak.	14(7.8)	39(21.7)	73(40.5)	54(30)
It is disrupting my plan.	31(17.2)	82(45.6)	36(20)	31(17.2)
My diet has become irregular since this Outbreak.	10(5.6)	37(20.6)	70(40)	61(33.8)
I eat more fast food since this outbreak.	8(4.4)	23(12.8)	69(38.3)	80(44.4)
I am afraid of asymptomatic people who may infect others around me.	36(20)	77(42.8)	36(20)	31(17.2)
I am afraid I will be blamed if I get the virus.	25(13.9)	51(28.3)	50(27.8)	54(30)
People with Covid are a harm to society.	20(11.1)	52(28.9)	51(28.3)	57(31.7)
A person with Covid has a fetal virus in his body	26(14.4)	49(27.2)	53(29.4)	52(28.9)

Table 4: Association between sociodemographic characteristics and psychological (depression) impact of COVID-19 among Nurses at FMC Asaba

DEPRESSION	**Normal**	**Mild**	**Moderate**	**Severe**	**Extremely**	**Total sever**	**P value**
Gender							**0.153**
Male	29	8	5	2	0	44	
Female	100	10	15	4	7	136	
Age(years)							**0.076**
<=25	8	1	0	0	0	9	
26-30	23	5	6	0	0	34	

31-35	37	7	5	3	1	53	
36-40	29	0	5	1	1	36	
41-45	13	2	2	0	5	22	
46-50	12	2	1	1	0	16	
51-55	5	1	1	1	0	8	
56 & above	2	0	0	0	0	2	
Marital Status							**0.001**
Single	29	9	6	1	0	45	
Married	99	9	14	3	7	132	
Divorced	1	0	0	2	0	3	
Duration of Service							**0.186**
1-5	39	8	10	2	2	61	
6-10	37	5	5	1	1	49	
11-15	22	2	3	2	0	29	
16-20	15	1	1	1	0	18	
21& above	16	2	1	0	4	23	
Religion							**0.039**
Christianity	122	15	19	5	6	167	
Islam	4	3	0	0	0	7	
African traditional	3	0	1	1	1		

Married Nurses (p-value 0.001) and those with Christian faith (p-value 0.039) were associated withdepressive illness during COVID- 19 period more than others

Table 5: Association between sociodemographic characteristics and psychological (Anxiety) impact of COVID-19 amongNurses at FMC Asaba.

ANXIETY	Normal	Mild	Moderate	Severe	Extremely sever	Total	P value
Gender							**0.75**
Male	24	7	6	2	5	44	
Female	85	19	10	7	15	136	
Age(years)							**0.059**
<=25	4	2	2	1	0	9	
26-30	21	9	2	2	0	34	
31-35	32	7	6	2	6	53	
36-40	26	1	2	4	3	36	
41-45	11	5	0	0	6	22	
46-50	10	1	3	0	2	16	
51-55	3	1	1	0	3	8	
56 & above	2	0	0	0	0	2	
Marital Status							**0.015**
Single	27	8	7	3	0	45	

Married	81	18	9	6	18	132	
Divorced	1	0	0	0	2	3	
Duration of service							**0.161**
1-5	32	13	7	6	3	61	
6-10	31	7	4	2	5	49	
11-15	22	2	2	1	2	29	
16-20	11	1	1	0	5	18	
21 & above	13	3	2	0	5	23	
Religion							**0.093**
Christianity	104	23	15	8	17	167	
Islam	3	2	1	1	0	7	
African Traditional	2	1	0	0	3	6	

Married Nurses were more anxious than Single and divorced during the COVID-19 period, with a p-value 0.015

Table 6: Association between sociodemographic characteristics and psychological (Stress) impact of COVID-19 among Nurses at FMC Asaba.

STRESS	Normal	Mild	Moderate	Severe	Extremely sever	Total	P value
Gender							**0.92**
Male	38	1	2	3	0	44	
Female	115	6	7	7	1	136	
Age(years)							**0.26**
<=25	8	1	0	0	0	9	
26-30	30	1	3	0	0	34	
31-35	46	1	2	4	0	53	
36-40	32	2	1	1	0	36	
41-45	16	1	0	4	1	22	
46-50	14	0	1	1	0	16	
51-55	5	1	2	0	0	8	
56 & above	2	0	0	0	0	2	
Marital Status							**0.003**
Single	40	1	3	1	0	45	
Married	112	6	6	7	1	132	
Divorced	1	0	0	2	0	3	
Duration of Service							**0.226**
1-5	50	2	5	3	1	61	
6-10	43	4	1	1	0	49	
11-15	27	0	0	2	0	29	
16-20	15	1	2	0	0	18	
21 & above	18	0	1	4	0	23	

Religion						**0.025**
Christianity	143	5	9	9	1	167
Islam	7	0	0	0	0	7
African traditional	3	2	0	1	0	6

There were no comorbidities among nurses who suffered from Depression (p-value 0.001), Anxiety (p-value, 0.042), and Stress (p-value, 0,001) during the COVID-19 period when compared to others

DISCUSSION

Caring for people with COVID-19 on the front line has psychological impacts on healthcare professionals. This is one of the first studies to look at depression, anxiety, and stress among nurses and midwives in Nigeria during the COVID-19 pandemic. Results showed that the Majority of Healthcare workers were females (75.6%) in, the 31-35 years age group. who were married (59.1%)? The study also showed thatmost of the respondents attended Tertiary (59.4

%) Education and had a Bachelor's degree in Nursing within the rank of Nursing Officer 1. Many of them (33.9%) had 5 years of experience in service.

The findings of the current study revealed that 11.1 percent (table 2) of the respondents had varying levels of self-reported moderate depression as revealed by the DASS 21. When compared with another study done in Zambia (lonia Mwape et al 2022) with 22.5%.Our study showed that nurses were afraid (46.1%) table 3 and uncomfortable (45.6%) table 3 with the disease. They were often depressed when they lose a patient (40.1%) table 3, This demonstrates that a significant number of nurses and midwives at the front line of the COVID-19 pandemic have significant levels of depression and collaborates with previous research evidence (Lai J, 2020: Shah J, 2021: Sigdel A, 2020: Nwanonyiri D 2021) which generally suggest that nurses and midwives attending to clients with COVID-19 face an increased burden of mental health challenges compared with the general population (Aly HM et al 2021).

The present study findings show a slightly lower incidence of depression among health workers compared to studies from other countries. For instance, Aly HM et al, reported 94 percent of participants showed mild to severe depression while El?Zoghby recorded 50.4 percent. The discrepancy in the prevalence of depression may be attributed to methodological limitations, including differences in tools used, sample size, and modes of delivery of data collection tools. Notwithstanding these differences, the study was conducted during the second wave when the numbers of COVID-19 were not as high as those in the first wave, at a time when the lockdown restriction have been lifted. The depression seen in nurses and midwives, particularly women who were married (p-value 0.001) may have a heavier workload and a higher chance of direct contact with COVID-19 patients. Working longer hours than usual, as well as working in fearful, stressful, and confined situations where they are constantly at risk of infection, may all contribute to developing depression.Furthermore, the separation from family members during periods of quarantine may also be a major sourceof depression seen among the respondents.

Our findings showed the presence of COVID-19-related extreme anxiety in 11.1 percent of the married nurses (p-value 0.015) when compared with others. These findings were lower than those (of Lai et al2020), whose study found a significant number of frontline healthcare workers with some symptoms of anxiety. This level of anxiety is a source of concern because Nigeria's mental health services are

significantly under-resourced (Jibril Abdulmalik et al 2019), and lacked a formal, well-defined mental health response plan during the COVID-19 pandemic. This may have imposed negative consequences on the COVID-19 response by the health workers. These findings are in agreement with (Lu et al 2020).who reported that those health workers who directly attended to patients with COVID-19 had higher levels of anxiety than those working in other hospital units. Similarly (Lai et al 2020), state that nurses in thefrontline reported experiencing more severe symptom levels of anxiety compared to those working in other units. Most of the respondents in the present study were anxious regarding personal restrictions (47.7%) and disruptions of their family plans (45.6%). They reported psychological effects arising from mortalities of patients from COVID-19 infection (40%).

Few nurses and midwives (5.6%) had severe levels of stress from our findings. This confirms the results of previous studies (Cai H et al, 2020: Chen Q, et al 2020) that showed that front-line medical staff experienced emotional stress during the previous epidemics although their extent differed. For instance, Shechter et al reported 57 percent positive screens for psychological stress while Aly HM et al noted that
98.5 percent of respondents showed moderate to severe stress. Staff in direct contact with patients had higher levels of both acute or post-traumatic stress and psychological distress (Kisley S, Warren N, et al 2020). Similar to other scholars (Browning MHEM, et al 2021), we also found that respondents who were married (p-value 0.001), and younger(less than 35 years of age) table1, were more vulnerable to stress than others. This was related to social isolation and the fear of infecting their family or having an infected family member (40.0%) table 3.

About 6316 articles were searched (Firomsa Bekele, et al, 2021) from three databases (PubMed, Science Direct, and Google Scholar). 20 articles were filtered and analyzed. They narrated different types of psychological impact; stress was within the range from 5.2% to 100%, anxiety was reported from 11.1% to 100%, depression was from 10.6% to 58%, and insomnia was from 28.75% to 34%. Numerous reasons were alluded to the negative psychological state of healthcare workers due to coronavirus disease-19 like educational level, occupation, gender, age, working environment, work experience, legal status, ethnicity, psychological comorbidity, social support, personal/family exposure, feeling of health care providers.

CONCLUSION

Therefore, mental health support for nurses and midwives is extremely critical during pandemics like the one being experienced. The various findings highlighted the need for the Health sector, and other stakeholders to monitor the mental health of nurses and midwives on the frontline of the COVID-19pandemic, not limited to regulating their workload, giving emotional support, and recognizing their efforts.It is better to create awareness for the community and promote a family support system. Special training should be encouraged to minimize the psychological impact of the COVID-19 pandemic on nurses and protect their mental health. The government to develop and implement national programs for occupational, mental health, and safety in the workplace. To also improve psychological well-being, and protect from physical and biological hazards to take care of the mental health of healthcare professionals.

We recommend the provision of accommodation for workers who had exposure and are not sure of themselves. Support systems in hospitals should be strengthened. Counselling unit that can support those exposed, whether physically or virtually. In addition, further research is required to explore nurses copying strategies given the present findings.

REFERENCES

1. AA Brandford, DB Reed (2016): “Depression in registered nurses: a state of the science. Workplace Health Saf. 2016; 04(10): 488 – 511.

2. Adam Abba-Aji et al(2020): COVID-19 Pandemic and Mental Health: Prevalence and Correlates of New-Onset Obsessive-Compulsive Symptoms in a Canadian Province; Int J Environ Res PublicHealth. 2020 Sep 24;17(19):6986.doi: 10.3390/ijerph17196986.
3. A Lasalvia (2021). The psychological impact of a covid-19 pandemic on healthcare workers in a highly burdened area of north-east Italy; J Epidemiology and Psychiatry Sciences, Vol 30;2021 https://www.cambridge.org<article
4. Aly HM et al (2021): Stress, Anxiety, and Depression among Healthcare Workers Facing COVID-19 Pandemic in Egypt: A Cross-Sectional Online-Based Study. BMJ Open, 11, e045281. https://doi.org/10.1136/bmjopen-2020-045281
5. Ahorsu, D. K., Lin, C. Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020): The Fear of COVID-19 Scale: Development and Initial Validation. International Journal of Mental Health and Addiction, 1–9. Advanced online publication. available at: https://doi.org/10.1007/s11469- 020- 00270-8.
6. Armour C (2020): The COVID-19 psychological well-being Study, Understanding the Longitudinal Psychosocial Impact of the COVID-19 Pandemic in the UK; a Methodological Overview PaperJournal of Psychopathology and Behavioral Assessment (2021) 43:174–190 https://link.Springer.com.
7. Bárbara O R, Tania L S(2020): The Psychosocial Impact of COVID-19 on health care workers; Int Braz J Urol 2020; 46(Suppl 1): 195–200.
8. Bonnie l Hewlette, Barry S Hewlette (2005): Providing care and facing death: nursing during Ebola outbreaks in central Africa; J Transcult Nurs. 2005 Oct;16(4):289-97.doi:10.1177/1043659605278935.
9. Batra K., Singh T.P, et al (2020): N. Investigating the psychological impact of COVID-19 among healthcare workers: A meta-analysis. *J. Environ. Res. Public Health.* 2020; **17:9096**. doi: 10.3390/ijerph17239096.
10. Brooks, S.K., Webster, R.K., Smith, and L.E., et al. (2020): "The psychological impact of quarantine and how to reduce it: a rapid review of the evidence". Lancet 395 (10227): 912 – 920.
11. Browning, M.H.E.M., Larson, L.R., Sharaievska, I., Rigolon, A., McAnirlin, O., Mullenbach, L., Cloutier, S., Vu, T.M., Thomsen, J., Reigner, N., Metcalf, E.C., D'Antonio, A., Helbich, M., Bratman, G.N. and Alvarez, H.O. (2021) Psychological Impacts from COVID-19 among University Students: Risk Factors across Seven States in the United States. PLoS ONE, 16, e0245327. https://doi.org/10.1371/journal.pone.0245327
12. Cai, H., Tu, B., Ma, J., Chen, L., Fu, L., Jiang, Y. and Zhuang, Q. (2020) Psychological Impact and Coping Strategies of Frontline Medical Staff in Hunan between January and March 2020 during the Outbreak of Coronavirus Disease 2019 (COVID) in Hubei, China. Medical Science Monitor, 26, e924171-1. https://doi.org/10.12659/MSM.924171
13. Chen, Q., Liang, M., Li, Y., Guo, J., Fei, D., Wang, L., He, L., Sheng, C., Cai, Y., Li, X., Wang, J. and Zhang, Z. (2020) Mental Health Care for Medical Staff in China during the COVID-19 Outbreak. The Lancet Psychiatry, 7, e15-e16. https://doi.org/10.1016/S2215-0366(20)30078-X
14. Crawford, J.R. and Henry, J.D (2003): The Depression Anxiety Stress Scales (DASS): Normative Data and Latent Structure in a Large Non-Clinical Sample. British Journal of Clinical Psychology, 42, 111-131. https://doi.org/10.1348/014466503321903544
15. De Pablo G.S., Vaquerizo-Serrano J., et al (2020): Impact of coronavirus syndromes on the physical and mental health of health care workers: Systematic review and meta-analysis. *Affect. Disord.* 2020; **275:48**–57. doi: 10.1016/j.jad.2020.06.022.E Mekonen, B Shetie et al (2021): The Psychological Impact of COVID-19 Outbreak on Nurses Working in the Northwest of Amhara Regional State Referral Hospitals, Northwest Ethiopia; Psychol Res Behav Manag. 2021 Jan 5; 13:1353-1364.doi: 10.2147/PRBM.S291446. eCollection 2020.
16. Firomsa Bekele, et al, (2021): Magnitude and determinants of the psychological impact of COVID-19 among health care workers: A systematic review; Journals.sage.pub, April 25, 2021; pg1-10.
17. Franklin Chibuacha et al: How to determine the Sample size for Research Study; Geo Poll; April 2021 https://www.geopoll.com/blog/sample-size-research/.
18. Greenberg N, Docherty N, Gnanapragasam S, Wessely S (2020): "Managing mental health challenges faced by healthcare workers during COVID – 19 pandemic". BMJ 2020; 368.

19. GD Smith (2020): COVID–19, emerging compassion, courage and resilience in the face of misinformation and adversity. J Clin. Nurs. 2020; 29(9 – 10); 1425.
20. Gonzalo Salazar de Pablo et al (2020): Impact of coronavirus syndromes on the physical and mental health of health care workers: Systematic review and meta-analysis; J Affect Disord. 2020 Oct 1; 275: 48-57.doi: 10.1016/j.jad.2020.06.022. Epub 2020 Jun 25.
21. Gordo J G Asmundson, Steven Taylor (2020): How health anxiety influences responses to viral outbreaks like COVID-19: What all decision-makers, health authorities, and health care professionals need to know; J Anxiety Disord. 2020 Apr; 71:102211.doi: .1016/j.janxdis.2020.102211. Epub 2020 Mar 10.
22. ICN (2020): More than 600 nurses die from COVID-19 worldwide 3 June 2020; https://www.icn.ch/news/more-600-nurses-die-covid-19-worldwide#:~:text=The%20International%20Council%20of%20Nurses,protect%20nurses%20from%20COVI
23. Jianying Qiu et al2020): A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations; Gen Psychiatr. 2020 Mar 6;33(2):e100213.doi: 10.1136/psych-2020-100213. eCollection 2020.
24. Jibril Abdulmalik et al (2019): Sustainable financing mechanisms for strengthening mental health systems in Nigeria; Int J of Mental Health systems;Article number: 38 (2019).
25. Kisely, S., Warren, N., McMahon, L., Dalais, C., Henry, I. and Siskind, D. (2020) Occurrence, Prevention, and Management of the Psychological Effects of Emerging Virus Outbreaks on Healthcare Workers: Rapid Review and Meta-Analysis. BMJ, 369, m1642. https://doi.org/10.1136/bmj.m1642
26. Lai J et al (2020): Factors Associated with Mental Health Outcomes among Health Care Workers Exposed to Coronavirus Disease 2019. JAMA Network Open, 3, e203976. https://doi.org/10.1001/jamanetworkopen.2020.3976.
27. Li H., Zhang Y., Wang H., et al (2020): The Relationship between Symptoms of Anxiety and Somatic Symptoms in Health Professionals during the Coronavirus Disease 2019 Pandemic. *Dis. Treat.* 2020; **16:3153**–3161. i: 10.2147/NDT.S282124
28. lonia Mwape et al (2022): COVID-19 Pandemic through the Lenses of Nurses and Midwives in Zambia: Exploring Depression, Anxiety and Stress; Journal of Psychiatry, 2022, 12, 11-22 https://www.scirp.org/journal/ojpsych
29. Lovibond S H, Lovibond P F (1995). Manual for the Depression, Anxiety & Stress Scales.(2nd Ed.) Sydney: Psychology Foundation of Australia. https://www.scirp.org/
30. Lu, W., Wang, H., Lin, Y. et al (2020) Psychological Status of Medical Workforce during the COVID-19 Pandemic: A Cross-Sectional Study. Psychiatry Research, 288, 112936-112936. https://doi.org/10.1016/j.psychres.2020.112936.
31. Muñoz-Fernández S.I., Molina-Valdespino D, (2020): Estrés, respuestas emocionales, factores de riesgo, psicopatología y manejo del personal de salud durante la pandemia por COVID-19. *Acta Pediátr. Mex.* 2020; **41:127**–136. doi: 10.18233/APM41No4S1ppS127-S1362104.
32. Nwanonyiri D et al (2021): Helping Nurses Cope with COVID-19 Pandemic: Evaluating Support Programs. Open Journal of Nursing, 11, 65-74. https://doi.org/10.4236/ojn.2021.112007..
33. Odenigbo, O.O. (2015) Pattern of Medical Admissions at the Federal Medical Centre, Asaba—A Two Year Review; https://pubmed.ncbi.nlm.nih.gov/20329679/
34. Osman, A., Wong, J.L, et al (2012): The Depression Anxiety Stress Scales—21 (DASS-21): Further Examination of Dimensions, Scale Reliability, and Correlates. Journal of Clinical Psychology, 68, 1322-1338. https://doi.org/10.1002/jclp.21908
35. Salari N., Khazaie H., Hosseinian-Far A., et al (2020): The prevalence of stress, anxiety, and depression within front-line healthcare workers caring for COVID-19 patients: A systematic review and meta-regression. *Resour. Health.* 2020; **18:100**. doi: 10.1186/s12960-020-00544-1.
36. Shah J et al (2021): Mental Health Disorders among Healthcare Workers during the COVID-19 Pandemic: A Cross-Sectional Survey from Three Major Hospitals in Kenya. BMJ Open, 11, e050316. https://doi.org/10.1136/bmjopen-2021-050316.
37. Shannon M Blakey and Jonathan S Abramowitz (2017): Psychological Predictors of Health Anxiety

in Response to the Zika Virus; J Clin Psychol Med Settings. 2017 Dec; 24(3-4):270-278.doi: 10.1007/s10880-017-9514-y.

38. Shechter, A., Diaz, F., Moise, N., Anstey, D.E., Ye, S., Agarwal, S., Birk, J.L., Brodie, D., Cannone, D.E., Chang, B., Claassen, J., Cornelius, T., Derby, L., Dong, M., Givens, R.C., Hochman, B.,Homma, S., Kronish, I.M., Lee, S., Manzano, W., Abdalla, M., et al. (2020) Psychological Distress, Coping Behaviors, and Preferences for Support among New York Healthcare Workers during the COVID-19 Pandemic. General Hospital Psychiatry, 66, 1-8. https://doi.org/10.1016/j.genhosppsych.2020.06.007
39. Shu–Ching, C, Yeur–Hur L, Shiow–Luan T (2020): "Nursing perspectives on the impacts of COVID–19.available at; J Nurs Res. 2020; 28(3):e85.
40. Sigdel A et al (2020): Depression, Anxiety and Depression-Anxiety Comorbidity amid COVID-19 Pandemic: An Online Survey Conducted during Lockdown in Nepal. https://doi.org/10.1101/2020.04.30.20086926.
41. Sonya Healy, Mark Tyrrell (2011): Stress in emergency departments: experiences of nurses anddoctors; Emerg Nurse. 2011 Jul; 19 (4):31-7.doi: 10.7748/en2011.07.19.4.31.c8611.
42. Steve Kisely et al (2020): Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis; BMJ 2020;369:m1642 doi: 10.1136/BMJ.m1642
43. Sumit Thakar, Shareyas Singh, et al (2021): Psychological impact of the second wave of the COVID-19 pandemic on non-frontline healthcare workers: results of a cross-sectional study in a tertiary care hospital in India; International Journal of Community Medicine and Public Health | June 2021 | Vol 8 | Issue 6 Page 2829.
44. Teris Cheung SFY et al (2015): Depression, Anxiety and Symptoms of Stress among Hong Kong Nurses: A Cross-sectional Study; Int J Environ Res Public Health. 2015 Sep 7; 12(9):11072-100.doi: 10.3390/ijerph120911072.
45. WHO (2019): Corona virus disease (COVID-19) Pandemic;https://www.who.int/emergencies/diseases/novel-coronavirus-2019.
46. ZY Zu, MD Jiang, PP Xu(2020): "Coronavirus Disease 2019 (COVID – 19); A perspective from China", Radiology; 2020;296 (2):200-490 https://pubmed.ncbi.nlm.nih. gov/32083985/