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Mental health burden and resilience among Nigerians undergoing COVID-19 isolation in Kaduna-Nigeria

ABSTRACT

Background: The coronavirus pandemic and Its "pandemic-fear," is expected to come with lots of mental health challenges. Despites several global health vanguards sounding this alarm, there is paucity of systematic analysis of mental health distress and resilience being experienced by individuals undergoing treatments in isolation centres for coronavirus disease (COVID-19).

Objectives: This study evaluated the pattern of mental distress and resilience in COVID-19 patients undergoing isolation-care in some treatment facility in Kaduna-Nigeria.

Method: Data were collected cross-sectionally from 261 participants. These were sociodemographic and clinical variables, measures of mental distress (i.e. depression and anxiety), and well-being (i.e. resilience). Statistical analysis was carried out using SPSS version 21.

Results: The mean age of participants was 35.6 years (SD = 11.1), with majority being males (73.6%) and without prior chronic medical condition (73.9%). Mental distress rates were 33.0% for depression and 19.2% for anxiety. Majority (97.1%) had good resilience characteristics. Significant variable associated with low mental distress and high resilience is belonging to age group 40 years and above. Also, resilience was moderately and significantly related to mental distress.

Conclusion: Mental distress is relatively high among COVID-19 patients undergoing isolation-treatment. This rate is associated with age group of below 40 years and having low resilience characteristics. Efforts to boost resilience among COVID-19 might institute preventive measures against mental distress.

Keywords: Mental distress, COVID-19, Resilience, isolation, Kaduna,

INTRODUCTION

The pandemic coronavirus pneumonia (i.e. COVID-19), first diagnosed in Lagos-Nigeria on February 27, 2020, later spreads across Nigeria[1]. The spread led the Nigerian government to implement a nationwide containment quarantine lockdown of all to stay at home, apart from the frontline essential workers. This action in a low-middle income country and the global "pandemic fear," as well as the "coronaphobia" make the World Health Organization (WHO) and the Africa Centre for Disease Control (Africa CDC) to offer guidelines toward addressing the expected associated mental health challenges[2-6].

Despite sounding the mental health alarm, the effects of COVID-19 "pandemic fear," and possibly associated other mental health implications on the infected, their relations and the community at large is yet to be systematically assessed. This study filled part of these gaps by evaluating the prevalence of mental health burden and resilience among individuals that underwent treatment for COVID-19 in some isolation facilities in Kaduna State.

METHODS

Study population

The participants were individuals that underwent isolation in some treatment facilities in Kaduna State, Nigeria, from June 1st to 30th November 2020. Only participants who gave informed consent and without previous psychiatric illnesses, were recruited into the study which ran for a period of 6 months. Sample size as determined by Raosoft Scientific Calculator,[7] were 261, at a margin of error of 6.03% and confidence level of 90%. The participants filled the study

instruments which comprised two parts, a sociodemographic questionnaire and mental health burden measures.

Instruments of study

Sociodemographic questionnaire

This self-developed instrument collected data on the participants' current age, gender at birth, outcome of coronavirus PCR test, number of days spent in isolation before discharge and type of preexisting health condition before admission into the treatment facilities.

The Hospital Anxiety and Depression Scale

The Hospital Anxiety and Depression Scale (HADS) as developed by Zigmond and Snaith comprised 14 item[8]. A group of 7-item screens for the presence of symptoms of anxiety disorders and the other 7-item screens for features of depressive disorder. This measuring scale has been widely used in Nigeria and a score of 8 and above on either of the two subscales is suggestive of the presence of anxiety and/or depressive symptoms.

The Brief Resilience Scale

Smith and colleagues developed the Brief Resilience Scale (BRS) as the shortest measure of resilience[9]. It is a 6-item measuring tool comprising of equal collection of positively and negatively worded questionnaire. It can group participants scores into low, medium and high resilience characteristics.

Ethical approval/Data analysis

Ethical approval to carry out the study was obtained from the Federal Neuro-Psychiatric Hospital Ethical Review Board. Data collected were analyzed using the IBM-SPSS version 21. The

sociodemographic variables and mental distress prevalence were described using frequency tables. Mental burden distributions according to their sociodemographic were determined using measures of central tendency and Student-t test. Test of correlation coefficient were used to determine association among the test variables. All tests significance was carried out at p<0.05, two-tailed.

RESULTS

As shown in Table 1, the mean age of the 261 participants was 35.6 years (SD = 11.2 years) and majority of them were males (192 [73.6%]), and were not having pre-existing medical condition (193 [73.9%]). The most common pre-existing medical condition was chronic headache.

Table 1: Sociodemographic and clinical variables distribution of participants (N=261)

Variables	Frequency (n)	Percentage (%)
Age (years)		
18-29	90	34.5
30-39	85	32.6
40-49	52	19.9
50-59	25	9.6
60-76	9	3.4
Age range = 18 – 76	Mean (Standard Deviation) = 35.6 (11.1)	
Gender		
Female	69	26.4
Male	192	73.6
Pre-existing medical condition		
Yes*	68	26.1
No	193	73.9

*: asthma = 5 (1.9%); hypertension = 17 (6.5%); diabetes = 16 (6.1%); chronic headaches = 20 (7.7%); others = 10 (3.8%) [endometrosis (1); heart disease (1); hepatisis (3); sickle cell anaemia (1); peptic ulcer diseases (4)]

Table 2 shows that about one third (33.0%) of the participants were cases for depression, with less than that (19.2%) having anxiety symptomatology and most of them (93.1%) had normal to high resilience characteristics.

Table 2: Mental health characteristics of participants (N=261)

Mental health burden	Variables	Frequency [n(%)]
HADS depression subscale	Case	86 (33)
	Noncase	175 (67)
HADS anxiety subscales	Case	50 (19.2)
	Noncase	211 (80.8)
Resilience characteristics	Low	18 (6.9)
	Normal	190 (72.8)
	High	53 (20.3)

HADS: Hospital and Anxiety Depression Scale

As shown in table 3, being less than 40 years of age is statistically significant with having more depressive symptoms. Also, statistically significant with age is resilience which is more in those 40 years and above. Both gender and pre-existing medical conditions were not significantly related to mental health characteristics of the participants.

Table 3: Crosstabulation of participants' sociodemographic and clinical variables with their mental health characteristics

Variables	HAD depression subscale		HADS anxiety subscale		Resilience	
Age (years)	Mean	t-value	Mean	t-value	Mean	t-value
< 40	7.01 (3.1)	2.002*	5.26 (3.1)	1.745	3.65 (0.6)	2.995*
≥40	6.19 (3.2)		4.57 (2.6)		3.88 (0.5)	
Gender						
Female	7.14 (3.5)	1.248	4.55 (3.1)	1.552	3.81 (0.6)	1.361
Male	6.59 (3.0)		5.20 (3.0)		3.70 (0.6)	
Pre-existing condition						
No	6.52 (3.0)	1.877	4.90 (2.9)	1.218	3.75 (0.6)	0.899
Yes	7.35 (3.5)		5.41 (3.2)		3.67 (0.7)	

*: $p < 0.05$

Table 4 shows the association among the mental health characteristics of the participants were moderately significant for all measures, with those measuring vulnerability (i.e. depression and anxiety) being inversely related to the tool measuring strength i.e. resilience.

Table 4: Correlation of participants' mental health characteristics

	1	2	3	Cronbach's alpha (α)
1. HADS depression	1	0.692*	-0.408*	0.749
2. HADS anxiety		1	-0.407*	0.548
3. Resilience			1	0.589

*: $p < 0.01$

DISCUSSION

The present study which aimed to assess the level of mental health characteristics among participants diagnosed with COVID-19 infection revealed high mental distress (33.0% for depression and 19.2% for anxiety) compared to the normal Nigerian adult population prior to the pandemic (3.1-5.5% for depression and 3.5-5.8% for anxiety disorder) [10-12]. The rate in this study is also higher than in previous hospital based studies among patients with chronic illness like hypertension [13]. Such observation might be due to the present study is among participants with an infectious disease, COVID-19, with lots of unknown outcomes about it. Also, that this infection is responsible for the ongoing pandemic, and the pandemic-related factors that could also contribute to higher mental distress, like the stigma often associated with the infection, unpredictability of the short and long term outcomes, disruption of economic and family routines, and the barrage of information spread from the different platforms of conventional and social media that may also further compound the risks.

The rate of resilience in this study for majority of the participants is normal to high. This rate (97.1%) is higher than in a previous study (53%) in Nigeria [14]. However, this difference might be

due to different population group (i.e. patients vs. undergraduates), difference tools utilization (Brief Resilience Scale vs. Resilience Scale) and mean higher age (35.6 vs 22.5 years) respectively in this study vs. the undergraduate study.

The age group of 40 years and above is significantly related to lower depressive symptoms score and higher resilience scores. This is expected and supported by previous studies that identified resilience as an intermediator of vulnerability when low and wellness were high[15,16].

Furthermore, the significant moderate and inverse relationship of resilience with mental distress, might be suggesting that the study prevalence should have been higher than observed. However, it might also be pointing to the psychiatric services available to the participants during isolation and the relatively sound psychological health they (now as survivors) are enjoying after discharge from the hospital.

Despite the observed implication of our study that resilience enhancement is vital to the well-being of COVID-19 patients, our study is limited by being a cross-sectional study, being carried out in a State in Nigeria, not looking for the impact COVID-19 stigma on the patients and for not doing a follow-up study. These should be taking into consideration in planning future studies.

CONCLUSION

In conclusion, this study documents that mental health distress among COVID-19 patients in Kaduna State is higher than in the general adult population in Nigeria. The significant risk factors for experiencing higher mental distress scores are belonging to the age group below 40 years and having lower resilience characteristics. Health care professionals and policy makers should be aware of these and institute appropriate preventive measures like resilience

enhancement to reduce mental distress in the immediate, short and long-term, among individuals undergoing treatment for COVID-19.

ACKNOWLEDGEMENTS

DISCLOSURE STATEMENT

The authors declare no conflict of interest.

REFERENCES

1. NCDC. COVID-19 outbreak in Nigeria, situation report S/N: 001 29th February 2020. Available from: https://ncdc.gov.ng/diseases/sitreps/?cat=14&name=An%20update%20of%20COVID-19%20outbreak%20in%20Nigeria. (Accessed 4th April 2020).

2. Ornell F, Schuch JB, Sordi AO, and Kessler FHP. "Pandemic fear" and COVID-19: mental health burden and strategies. Brazil Journal of Psychiatry, 2020.

3. WHO. Mental health and psychosocial considerations during the COVID-19 outbreak. Available from: https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf. (Accessed on 3rd May 2020).

4. Africa Centres for Disease Control and Prevention. Guidance for mental health and psychosocial support for COVID-19. Available from: https://africacdc.org/download/guidance-for-mental-health-and-psychosocial-support-for-covid-19/. (Accessed on 2nd June 2020).

5. Ghebreyesus TA. Addressing mental health needs: an integral part of COVID-19 response. World Psychiatry, 2020, 19(2); 129-30.

6. Li J, Yang Z, Qiu H, Wang Y, Jian L, Ji J' and Li K. Anxiety and depression among general population in China at the peak of COVID-19 epidemic. World Psychiatry, 2020, 19(2); 249-50.

7. Raosoft. Sample size calculator. On: http://www.raosoft.com/samplesize.html. (Accessed on 28th April, 2020)

8. Zigmond AS. and Snaith RP. the Hospital Anxiety and Depression Scale. Acta Psychiatrica Scandinava, 1983; 67: 361-70.

9. Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, and Bernard J. The brief resilience scale: assessing the ability to bounce back. International journal of behavioral medicine, 2008; 15(3): 194-200.

10. Gureje O, Uwakwe R, Olajide B, Makajuola VA, and Esan O. Depression in adult Nigerians: results from the Nigerian Survey of Mental Health and Well-being. Journal of Affective Disorders, 2009, 120 (1-3): 158-64.

11. Adewuya AO, Atilola O, Ola BA, Coker OA, Zachariah MP, Olugbile O, Fasawe A, and Idris O. Current prevalence, comorbidity and associated factors for symptoms of depression and generalized anxiety in Lagos State Mental Health Survey (LSMHS), Nigeria. Comprehensive Psychiatry, 2018, 81: 60-5.

12. Gureje O, Lasebikan VO, and Makajuola V. Lifetime and 12-month prevalence of mental disorders in the Nigerian Survey of Mental Health and Wellbeing. The British Journal of Psychiatry, 2006, 188(5): 465-71.

13. Ademola AD, Boima V, Odusola AO, Agyekum F, Nwafor CE, and Salako BL. Prevalence and determinats of depression among patients with hypertension: a cross-sectional comparison study in Ghana and Nigeria. Nigerian Journal of Clinical Practice, 2019, 22(4): 558-65.

14. Olorukooba HO, Afolayan JA, Umar NJ, Olubiyi SK, Imam AA, and Abiola T. Resilience and its relatedness to mental distress among nursing students in a tertiary educational institution. Iman Medical Journal, 4(1): 51-7.

15. Wagnild GM. The Resilience Scale User's Guide for the US English version of the Resilience Scale and the 14-item Resilience Scale, 2009.

16. Bajaj B. and Pande N. Mediating role of resilience in the impact of mindfulness on life satisfaction and affect as indices of subjective well-being. Personality and Individual Differences, 2016, 93: 63-7.

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