MENTAL HEALTH IMPLICATIONS OF LOCKDOWN DURING CORONAVIRUS PANDEMIC AMONG ADULTS RESIDENT IN IBADAN, NIGERIA

AFOLABI, Abimbola

ABSTRACT

The study examined the mental health implications of lockdown during coronavirus pandemic among adult residents in Ibadan, Nigeria. Descriptive survey research method was adopted for the study. The study made use of questionnaire adapted from the General Health Questionnaire (GHQ-12) and GHQ-28. One hundred and thirty-two respondents filled the validated questionnaire with a reliability co-efficient of 82 at 0.05 level of significance. Three research questions and one hypothesis were formulated for the study. Findings revealed that there is a high level of effect of lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan. On the whole, sleeplessness is perceived as the dominant of two variables and is significantly positively correlated with depression and anxiety with the least coefficient (r= 0.434**) is also significant and positively correlated with depression among adult residents in Ibadan. Based on these findings, the government at all levels (Local, State and Federal) should provide adequate palliative measures for their citizens bearing in mind that with the lockdown, individuals would not have adequate income. The Social Workers should also organize virtual meetings and trainings to educate these adults on coping mechanisms during this lockdown period.

KEY TERMS: *mental health, pandemic, coronavirus, adults and lockdown, Nigeria*

Author/s details*: Dr. Abimbola Afolabi, Department of Social Work, University of Ibadan, Nigeria. Telephone Number: 08035627992, Email Address: drafolabiabimbola@gmail.com*

INTRODUCTION

The potential impact of the Coronavirus pandemic on population's mental health is of increasing global concern. Coronavirus disease is an infectious disease caused by a new strain of coronavirus (SARS-CoV-2). Mental health is the level of psychological well-being or an absence of mental illness. Lockdown is a restriction placed on movement of humans within the country, restraining face-to-face schooling, worshipping, working and socializing. For the purpose of this study, adults fall within the age of 21 and 70 years. Pandemic is a disease outbreak that spreads across countries or continents. The main objective of the study is to assess the mental health implications of lockdown during coronavirus (COVID-19) pandemic among adults resident in Ibadan. Descriptive survey research method was adopted for the study. All the adult resident in Ibadan are target participants for the study but due to the peculiarity of movement lockdown during coronavirus pandemic, only one hundred and thirty-two (132) responded to the invite for the study. Purposive sampling technique was used to direct online questionnaires to only adults that reside in Ibadan, Nigeria. The study is outlined as follows: abstract, introduction, background, methodology, findings, discussion, recommendations, implications for Social Work and conclusion.

BACKGROUND

The coronavirus began in Wuhan, Hubei Province, China. Residents who lived in Wuhan had some link to a large seafood and live animal market, which suggest that the mode of transmission of coronavirus was from animal to person. The virus has been named "SARS-CoV-2" and the disease it causes has been named "coronavirus disease 2019", abbreviated as "Covid-19". The first known patient of Coronavirus started experiencing symptoms in Wuhan, China on 1 December 2019. Globally, as of 5:36pm CEST, 29 July 2020, there have been 16,558,289 confirmed cases of COVID-19, including 656,093 deaths, reported to WHO. A study found increased rates of psychological distress among US adults in April, 2020 compared with those in 2018 and that the increase was greatest in young people aged 18–24 years and women. The effects associated to movement lockdown include acute financial strain, domestic violence, living alone and having an underlying mental or physical health condition.

Coronavirus is caused by severe acute respiratory syndrome coronavirus 2 and measures taken to prevent its spread have seriously affected every aspect of day-to-day life around the world. The pronouncement of movement lockdown by the Nigerian Government in March 23, 2020 has restrictions on social contact, ability for many people to work and high reduction in access to services. Early indications suggest a serious impact on employment, livelihoods, income and future insecurity. WHO emphasised concern for older adults especially those in isolation and those with dementia who may be more anxious, angry, stressed, agitated or withdrawn during the outbreak or while in isolation. Secondary analysis of data from a national, longitudinal cohort study to test the hypothesis that psychological distress in people in the UK increased one month into the COVID-19 emergency to a greater extent than expected given previous annual trends since 2014. It was hypothesised that the following groups would experience greater deterioration in their mental health.

The World Health Organisation (WHO) stress that mental health is "more than just the absence of mental disorders or disabilities." Peak mental health is about not only avoiding active conditions but also looking after ongoing wellness and happiness. In the United States, the National Alliance on Mental Illness estimate that almost 1 in 5 adults experience mental health problems each year. In 2017, an estimated 11.2 million adults in the U.S., or about 4.5% of adults, had a severe psychological condition, according to the National Institute of Mental Health (NIMH). Anxiety is the body's natural response to stress and it's a feeling of fear or apprehension about expectations. The excessive anxiety can lead to avoidance of work, school, family get-togethers and other social situations that might trigger or worsen your symptoms. Major types of anxiety disorders are separation anxiety disorder, specific phobia, social anxiety disorder, panic disorder, agoraphobia and generalized anxiety disorder. Depression is a common and serious medical illness that negatively affects how you feel, the way you think and how you act. Depression causes feelings of sadness or a loss of interest in activities once enjoyed. It can lead to a variety of emotional and physical problems and can decrease a person's ability to function at work and at home. Depression affects an estimated one in 15 adults (6.7%) in any given year. And one in six people (16.6%) will experience depression at some time in their life.

Mental health is important because it's vital part of life and impacts on thoughts, behaviors and emotions. It plays an important part in the health of relationships and allows for adaptation to changes in life and ability to cope with adversity. The factors that result in a poor mental health include childhood abuse, trauma, neglect, social isolation, loneliness, discrimination and stigma. Common signs of mental illness in adults and adolescents include the following: excessive worrying, fear, feeling excessively sad, extreme mood changes including feelings of euphoria. Everyone has some risk of developing a mental health disorder, no matter the age, sex, income or ethnicity. The following factors may contribute to mental health disruptions:

Continuous social and economic pressure

Having limited financial means or belonging to a marginalized or persecuted ethnic group can increase the risk of mental health disorders. A 2015 study of 903 families in Iran identified several socioeconomic causes of mental health conditions, including poverty and living on the outskirts of a large city. The researchers found that being female increased the risk of low mental health status by 3.96 times. People with a "weak economic status" also scored highest for mental health conditions in this study.

Biological factors

The National Institute of Mental Health (NIMH) suggests that genetic family history can increase the likelihood of mental health conditions, as certain genes and gene variants put a person at higher risk. Having a gene with links to a mental health disorder such as depression or schizophrenia does not guarantee that a condition will develop. Mental health conditions such as stress, depression, and anxiety may develop due to underlying, life-changing physical health problems, such as cancer, diabetes, and chronic pain. The most common types of mental illness are as follows: anxiety disorders, mood disorders and schizophrenia disorders. There are various methods for managing mental health problems. Treatment is highly individual. Some strategies or treatments are more successful in combination with others. Treatments can include psychotherapy. Some people take prescribed medications such as antidepressants, antipsychotics and anxiolytic drugs.

Another study shows that one-third of women will experience a major depressive episode in their lifetime. Depression is among the most treatable of mental disorders. Between 80 percent and 90 percent of people with depression eventually respond well to treatment. Psychotherapy is sometimes used alone for treatment of mild depression. Psychotherapy is often used along with antidepressant medications for moderate to severe depression. Cognitive behavioral therapy (CBT) has been found to be effective in treating depression. Electroconvulsive Therapy (ECT) is a medical treatment most commonly used for patients with severe major depression or bipolar disorder who have not responded to other treatments. The fact that this study is a relative new area, the idea is mainly to explore and eventually make use of the findings to improve mental health in the society.

In a recent survey carried out among 775 adults in the United States, an alarming 55% of them admitted that COVID-19 has had deleterious effects on their mental wellbeing and 71% were worried about the potential negative impact of isolation on the mental health of Americans WHO, 2020. In many ways, the threat to people's mental health appears to be invisible and ambiguous, one which requires urgent attention nonetheless (Hopkins JS, Russell D, 2020)

Previous disease outbreaks such as severe acute respiratory syndrome (SARS) in 2003 and Ebola disease in 2014–2016 were associated with a spectrum of mental health problems among both the general population and health workers such as depression, anxiety, fear, post-traumatic stress disorder and frustration Barbisch et al, 2015; Wei et al, 2004). However, there are arguments that the COVID-19 pandemic might be leveraged to merge public health with mental health, foster togetherness and reduce prejudice and stigma (Ahmed, 2020).

In states such as Illinois and Milwaukee where black people represent 14.6% and 26 percent of the population respectively, black people made up almost half and 42% percent of fatalities respectively (Vox, 2020). Some of the reasons attributed to this disparity include the high prevalence of chronic diseases, which predispose to death with COVID-19 disease among back Americans, health inequity and racial disparity (Vox, 2020). Patients infected with similar infections do not appear to be spared mental problems as depression, suicidality, anxiety, panic attacks and delirium have been reported among such cohorts (Barbisch et al, 2015)**.** Table 1 shows the current data of incidence of coronavirus disease in Nigeria.

Table 1: Confirmed Cases by State in Nigeria as at 29th July, 2020

STATE	INCIDENCE	STATE	INCIDENCE
Lagos	14954	Bauchi	539
FCT	3614	Osun	500
Oyo	2688	Imo	468
Edo	2241	Benue	346
Rivers	1739	Balyesa	327
Kano	1584	Jigawa	322
Delta	1486	Nasarawa	312
Kaduna	1396	Niger	223
Ogun	1336	Akwa Ibom	221
Ondo	1123	Sokoto	154
Plateau	1056	Adamawa	140
Enugu	790	Anambra	135
Ebonyi	785	Ekiti	132
Kwara	753	Kebbi	90
Katsina	742	Zanfara	77
Borno	613	Yobe	66
Gombe	607	Taraba	54
Abia	545	Cross River	45
		Kogi	5

METHODOLOGY

Descriptive survey research method was adopted for the study. All the adults resident in Ibadan are target participants for the study but due to the peculiarity of movement lockdown during corona virus pandemic, only one hundred and thirty two (132) responded to the invite for the study. Purposive sampling technique was used to direct online questionnaires to only the adults that reside in Ibadan, Nigeria. The study made use of questionnaire adapted from the General Health Questionnaire (GHQ-12) and GHQ-28 intended to screen for psychiatric general morbidity. The instrument has 4 sections addressing demographic characteristics, anxiety, depression and mental health respectively. Each section had 7 questions eliciting information from respondents. The instrument was validated with a reliability co-efficient of 82 at 0.05 level of significance. Two research questions were formulated and one hypothesis was postulated for the study. The instrument was deployed online and responses were retrieved and analysed using frequency, percentages and Pearson Product Moment Correlation. The main objective is to assess the mental health implications of lockdown during corona virus (COVID-19) pandemic among adults resident in Ibadan. The specific objectives: to determine the effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level, sleeping patterns and level of depression among adults resident in Ibadan

The research questions and hypothesis are as follows:

RQ 1: What is the effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan?
RQ 2: What is the effect of movement lockdown during coronavirus (COVID-19) pandemic on the sleeping patterns of among adults resident in Ibadan?
RQ 3: What is the effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of depression among adults resident in Ibadan?
Null hypothesis One (H$_0$1): There is no significant relationship among related variables (anxiety, sleeplessness) and Depression during coronavirus (COVID-19) pandemic lockdown among adults resident in Ibadan

FINDINGS

The data collected from the respondents were analyzed using statistical package for social sciences (SPSS) software version 20 and the results were discussed using descriptive statistics of frequency distribution tables and charts.

Presentation of results on research questions

RQ 1: What is the effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan?

Table 2: Effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan (N=132)

S/N	Item	SA (%)	A (%)	D (%)	SD (%)	N (%)	Mean	Std.Dev
i	I feel constantly under stress during this lock down.	40 (30.3)	36 (27.3)	28 (21.2)	11 (8.3)	17 (12.9)	**2.31**	**1.30**
ii	I experience financial stress during this lock down.	46 (34.9)	51 (38.6)	14 (10.6)	14 (10.6)	7 (5.3)	**2.82**	**1.16**
iii	I have been feeling lock down during this lock down.	24 (25.8)	51 (38.6)	24 (18.2)	15 (11.4)	8 (6.1)	**2.56**	**1.14**
iv	I have been getting a feeling of tightness in my head.	20 (15.5)	44 (33.3)	35 (26.1)	20 (15.2)	13 (9.8)	**2.23**	**0.17**
v	I am bothered by pressure from my family members.	25 (19.0)	39 (29.5)	39 (29.5)	18 (13.6)	11 (8.3)	**2.31**	**1.15**
vi	My physical health status disturbs me.	15 (11.4)	28 (21.2)	44 (33.3)	35 (26.5)	10 (7.6)	**1.91**	**1.04**
vii	I have been getting scared or panicky for no good reason.	17 (14.9)	34 (25.8)	42 (31.8)	27 (20.6)	12 (9.1)	**2.01**	**1.085**
	Overall	**Mean** = 15.16, **Std. Dev.** = 4.97						

SA= Strongly Agreed, A= Agreed, D= Disagree, SD = Strongly Disagree, N=Neutral

RQ 2: What is the effect of movement lockdown during coronavirus (COVID-19) pandemic on the sleeping patterns of among adults resident in Ibadan?

Table 3: Effect of movement lockdown during corona virus (COVID-19) pandemic on sleeping pattern level among adults resident in Ibadan (N=132).

SA= Strongly Agreed, A= Agreed, D= Disagree, SD = Strongly Disagree, N=Neutral

RQ 3: What is the effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of depression among adults resident in Ibadan?

S/N	Item	SA (%)	A (%)	D (%)	SD (%)	N (%)	Mean	Std.D.
i	I am disturbed to the point of having sleeplessness.	10 (7.6)	25 (18.9)	57 (43.2)	30 (22.7)	10 (7.6)	1.96	1.01
ii	I have lost much sleep over worry during the lock down.	16 (12.1)	29 (22.0)	47 (35.6)	29 (22.0)	11 (8.3)	**2.08**	**1.12**
iii	I have been keeping myself busy and occupied both day and night during the lock down.	18 (13.6)	59 (44.7)	26 (19.7)	8 (6.1)	21 (15.9)	**2.34**	**1.25**
iv	I have difficulty in staying asleep during this lock down.	10 (7.6)	28 (21.2)	50 (37.9)	27 (20.5)	17 (12.9)	**1.90**	**1.11**
v	I feel easily disturbed in my sleep when I think I cannot overcome my difficulty.	11 (8.4)	31 (23.5)	52 (4.8)	1 (2.4)	25 (59.5)	**2.04**	**1.07**
vi	Every little sound triggers me in my sleep.	9 (6.8)	29 (22.0)	52 (39.4)	25 (18.9)	17 (12.9)	**1.91**	**1.09**
vii	Once I am alone in the night, I don't have a good sleep.	5 (3.8)	17 (12.9)	61 (46.2)	35 (26.5)	14 (10.6)	**1.73**	**0.95**
	Overall		**Mean** = 13.95, **Std. Dev.** = 4.82					

Table 3: Effect of movement lockdown during coronavirus (COVID-19) pandemic on depression level among adults resident in Ibadan (N=132)

S/N	Item	SA (%)	A (%)	D (%)	SD (%)	N (%)	Mean	Std.D
i	I have been feeling reasonably unhappy during this lock down.	20 (15.2)	33 (25.0)	39 (29.5)	25 (18.9)	15 (11.4)	**2.14**	**1.22**
ii	I have been feeling ill during this lock down.	7 (5.3)	21 (15.9)	52 (39.4)	42 (31.8)	10 (7.6)	**1.80**	**0.98**
iii	I have been taking longer times over things I do during this lock down.	16 (12.1)	38 (28.8)	37 (28.0)	19 (14.4)	22 (16.7)	**2.05**	**1.26**
iv	During this lock down, I have been losing confidence in myself.	6 (4.5)	19 (14.4)	58 (43.9)	41 (31.1)	8 (6.1)	**1.80**	**0.92**
v	I feel that life is entirely hopeless during this lock down.	12 (9.1)	21 (15.9)	48 (36.4)	37 (28.0)	14 (10.6)	**1.85**	**1.10**
vi	During this lock down, I have felt life is not worth living.	3 (2.3)	15 (11.4)	56 (42.4)	45 (34.1)	13 (9.8)	**1.62**	**0.90**
vii	I found myself wishing I was dead and away from it..	2 (1.5)	5 (3.8)	35 (26.5)	76 (57.6)	14 (10.6)	**1.28**	**0.76**
	Overall		**Mean** = 12.54, **Std. Dev.** = 4.58					

Null hypothesis One (H₀1): There is no significant relationship between independent variables (anxiety, sleeplessness) and Depression during coronavirus (COVID-19) pandemic lockdown among adults resident in Ibadan

Table 4: Pearson Product Moment Correlation matrix between three related Mental Health Implication variables (Anxiety, Sleeplessness) and Depression among adults resident in Ibadan

Variable	Depression	Anxiety	Sleeplessness
Depression	1		
Anxiety	.434**	1	
Sleeplessness	.534**	-.021	1
Mean	12.54	15.16	13.95
Standard Deviation.	4.58	4.97	4.82

** Significant at 0.05

DISCUSSION

The effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan was defined by seven items (4-Strongly agree, 3–Agree, 2–Disagree, 1-Strongly Disagree and 0-Neutral). Descriptive statistics was used to analyse the data collected and the results are presented in table 2. From the test norm of effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan scale, the total maximum score of 28 is permissible. A score of 0-13 points shows low level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan and 14–28 points indicates high level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan. Since the mean(±SD) score of the respondents is 15.16 (±4.97) as shown in table 1 which falls within the range of 14–28, it can then be concluded a high level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan The study revealed that out of the seven items listed to determine the effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan, six of the items yielded high mean scores between 2.01 and 2.82. With these results, it could be deduced that there is a high level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan.

The effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of sleeping pattern among adults resident in Ibadan was defined by seven items (4-Strongly agree, 3–Agree, 2–Disagree, 1-Strongly Disagree and 0-Neutral). Descriptive statistics was used to analyse the data collected and the results are presented in table 3. From the test norm of effect of movement lockdown during corona virus (COVID-19) pandemic on the level of sleeping pattern among adults resident in Ibadan scale, the total maximum score of 28 is permissible. A score of 0-13 points' shows low level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the on the level of sleeping pattern among adults resident in Ibadan and 14–28 points indicates high level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of sleeping pattern among adults resident in Ibadan. Since the mean(±SD) score of the respondents is 13.95 (±4.82) as shown in table 2 which falls within the range of 1–13, it can then be concluded a low level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of sleeping pattern among adults resident in Ibadan The study revealed that out of the seven items listed to determine the effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of sleeping pattern among adults resident in Ibadan, three of the items yielded high mean scores between 2.04 and 2.34. With these results, it could be deduced that there is a low level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of sleeping pattern among adults resident in Ibadan.

The effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of depression among adults resident in Ibadan was defined by seven items (4-Strongly agree, 3–Agree, 2–Disagree, 1-Strongly Disagree and 0-Neutral). Descriptive statistics was used to analyse the data collected and the results are presented in table 4. From the test norm of effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of depression among adults resident in Ibadan scale, the total maximum score of 28 is permissible. A score of 0-13 points' shows low level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the on the level of depression among adults resident in Ibadan and 14–28 points indicates high level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of depression among adults resident in Ibadan. Since the mean(±SD) score of the respondents is 12.54 (±4.58) as shown in table 3 which falls within the range of 0–13, it can then be concluded a low level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of depression among adults resident in Ibadan. The study revealed that out of the seven items listed to determine the effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of depression among adults resident in Ibadan, two of the items yielded high mean scores between 2.05 and 2.14. With these results, it could be deduced that there is a low level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of depression among adults resident in Ibadan.

The correlation matrix result in Table 5 shows correlation coefficients between the independent variables (anxiety, sleeplessness) and Depression during coronavirus (COVID-19) pandemic lockdown among adults resident in Ibadan. The result in the table showed sleeplessness among adults resident in Ibadan is mostly correlated with depression with correlation coefficient (r = 0.534[**]). This showed that sleeplessness is perceived as the dominant of two variables and is significantly positively correlated with depression and anxiety with the least coefficient (r= 0.434[**]) is also significant and positively correlated with depression among adults resident in Ibadan. Hence, depression among adults resident in Ibadan is associated with the two related independent variables. The findings discussed above are similar to findings of a recent survey carried out among 775 adults in the United States, an alarming 55% of them admitted that COVID-19 has had deleterious effects on their mental wellbeing and 71% were worried about the potential negative impact of isolation on the mental health of Americans (WHO, 2020).

In conclusion, it could be deduced that there is a high level of effect of lockdown during coronavirus (COVID-19) pandemic on the anxiety level among adults resident in Ibadan. Also, it is deduced that there is a high level of effect of movement lockdown during coronavirus (COVID-19) pandemic on the level of sleeping pattern among adults resident in Ibadan. Furthermore, it could be deduced that there is a low level of effect of lockdown during coronavirus (COVID-19) pandemic on the level of depression among adults resident in Ibadan. On the whole, sleeplessness is perceived as the dominant of two variables and is significantly positively correlated with depression and anxiety with the least coefficient ($r= 0.434^{**}$) is also significant and positively correlated with depression among adults resident in Ibadan. Sleeplessness and anxiety which are prominent in mental health are significant and positively correlated with effect of lockdown during coronavirus pandemic in Ibadan, Nigeria.

RECOMMENDATIONS

Based on these findings, the government at all levels (Local, State and Federal) should provide adequate palliative measures for their citizens bearing in mind that with the lockdown, individuals would not have adequate income which may lead to anxiety, sleeplessness and depression. Governance frameworks should be put in place to address mental health literacy and achieve stigma reduction. There is need to conduct further studies to access the progression or improvement on the implications of lockdown during coronavirus pandemic on mental health of adults. Also, it is necessary to conduct further studies on the same topic in other areas of both the within Nigeria and outside Nigeria.

IMPLICATIONS FOR SOCIAL CASEWORK

Firstly, there is need for immediate social work response in policy making to ensure vulnerable groups are not left out. Social workers need to be part of the national advocacy movement to enact precautionary measures. Considering physical and social distancing that will deprive infected patients of having their family members with them, social workers need to be physically and psychologically there for the patients. The Social Workers should also organize virtual meetings and trainings to educate these adults on coping mechanisms during this lockdown period.

CONCLUSION

The study investigated mental health implications of lockdown during coronavirus pandemic in Ibadan, Nigeria. It was concluded that the findings from analysis of the data retrieved from the 132 respondents established that the lockdown during coronavirus pandemic had positive significant impact on the mental health of adults who reside in Ibadan, Nigeria.

REFERENCES

Ahmed, A. (2020). Rapid Response: Covid-19 pandemic: a public and global mental health opportunity for social transformation? BMJ 2020. Available at https://www.bmj.com/content/368/bmj.m800/rr-13. Accessed 10 April 2020.

Barbisch D, Koenig, K. L, Shih, F.Y. (2015). Is there a case for quarantine? Perspectives from SARS to Ebola. *Disaster Medicine and Public Health Preparedness*. 9:547–53.

Bowe A. (2017). The cultural fairness of the 12-item General Health Questionnaire among diverse adolescents. *Psychol Assess. 29, 1, 87-97.*

Honermann, B. (2015). An 'Epidemic Within an Outbreak:' The Mental Health Consequences of Infectious Disease

Epidemics O'Neill Institute. Available https://oneill.law.georgetown.edu/epidemic-within-outbreak-mental-health-consequences-infectious-disease-epidemics/. Accessed 20 April 2020.

Hopkins, J. S, & Russell D. (202). The mental health effects of Coronavirus are a "slow-motion disaster". Mother Jones. Available https://www.motherjones.com/coronavirus-updates/2020/04/the-mental-health-effects-of-coronavirus-are-a-slow-motion-disaster/. Accessed 10 Apr 2020.

Lucero-Prisno, D. E, Adebisi Y. A, Lin X. (2020). Current efforts and challenges facing responses to 2019-nCoV in Africa. *Glob Health Res Policy*, 5:21.

National Institute of Mental Health, (2020). Covid-19 is an emerging, rapidly evolving situation. Available https://coronavirus.gov Accessed on 20 April 2020.

Vox. COVID-19 is disproportionately taking black lives. Intercultural Dialogue Forum for Peace (IDFP) Available https://www.vox.com/identities/2020/4/7/21211849/coronavirus-black Americans. Accessed 10 Apr 2020.

Wei, Y. L, Han B, Liu W, Liu G, Huang Y. (2004). Psychosomatic discomfort and related factors among 1,411 first-line SARS staff in Beijing. Manual of the 7th national experimental medicine symposium of Chinese Society of Integrated Traditional Chinese and Western Medicine. China, 6–12.

World Health Organization. (2020). Mental health and COVID-19. Available http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov-technical-guidance/coronavirus-disease-covid-19-outbreak-technical-guidance-europe/mental-health-and-covid-19. Accessed 10 April 2020.