ORIGINAL ARTICLE

Psychological effects of COVID- 19 lockdown among Aseer residents, Saudi Arabia

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Abstract

Objective: To analyse the impact on mental health of the lockdown forced by the coronavirus disease-2019 pandemic.

Method: This descriptive, cross-sectional study was conducted in Aseer, Saudi Arabia, in May and June 2020, and comprised adult natives of either gender ho could read and write Arabic. Data was collected using a self-developed questionnaire which was distributed online via Google Forms. Data was analysed using SPSS 22.

Results: Of the 306 respondents, 238(77.8%) were females, 163(53.3%) were age 18-30 years 121(39.5%) were students, 166(54.2%) lived in a joint family, 257(84%) had undergone university education, 157(51.3%) were single, and 247(80.7%) resided in urban areas. During the lockdowns, 195(60%) participants felt moderate distress symptoms. Emotional distress and gender were significantly interlinked ($p<0.01$).

Conclusion: The lockdowns forced by the coronavirus disease-2019 pandemic had a moderate impact on the mental health of the participants, especially on females.

Keywords: Anxiety, COVID-19, Mental health, Psychological distress, Adolescent. (JPMA 73: S-2 [Suppl. 2]; 2023)

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Introduction

While the world is actively focussing on measures to suppress ever more strongly the transmission of coronavirus disease-2019 (COVID-19) and to protect even the most vulnerable groups, it is likely that the impact on mental equilibrium is going to be significant beyond the pandemic on a global scale[1–3] as people have different abilities to care for themselves.[4] Anxiety, apprehension and strain are reactions to potential or absolute hazards, especially when compounded with confusion or an unknown factor. During the active phase of the pandemic, people felt fear and anxiety. Attempts to contain COVID-19 spread required the implementation of quarantine and isolation.[5] However, it caused significant changes to people's daily routines, such as restrictions on travelling. This shifting affected many aspects, including telecommunication, joblessness, family relations, and lacking contact with other relatives, colleagues and associates. In such a situation, mental health became as important as physical health.[6]

The World Health Organisation (WHO) and governments provided guidance for health professionals, healthcare facilities, and the general public on how to maintain mental health during the pandemic.[2] After clusters of atypical pneumonia of unknown aetiology were discovered in late December 2019 in Wuhan, China, the viral disease exponentially spread worldwide.[7] A nationwide survey among Chinese population found that almost 35% of 52,730 respondents from 36 provinces experienced psychological distress.[8]

In Saudi Arabia, lockdowns were imposed by the government on March 9, 2020. This meant travel ban and shutting down of academic institutions. Only essential business operations and productions were allowed. People were advised to stay at home and to practise social isolation to protect themselves against possible infection. The entire population of the country was under lockdown and curfew during the annual Eid holidays, from May 23 to 27, which is otherwise a time of celebrations and social interaction. The nationwide curfew was from 7pm to 6am, but during the Eid phase, a 24-hour curfew was imposed nationwide.[9] The impact of COVID-19-led lockdowns has not been studied in context of Saudi Arabia. The current study was planned to fill the gap by assessing the impact on mental health of the lockdown forced by the pandemic.

Subjects and Methods

This descriptive, cross-sectional study was conducted in the Aseer province of Saudi Arabia in May and June 2020. After approval from the ethics review committee from the King Khalid University, the sample size was calculated in line with literature[6] using n-Master calculator (https://www.cmc-

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biostatistics.ac.in/nmaster), with margin of error 5% and confidence interval (CI) 95%. The sample was raised using convenience sampling technique through social media platforms, using Google Forms. Those included were adult natives of either gender who could read and write Arabic. Those not willing to participate were excluded.

After taking informed consent from all the participants, data was collected. The questionnaire used was self-designed and passed the validity and reliability testing. The scale consisted of 15 items under two sections covering 7 dimensions; anxiety, fear, worry, panic, anger, isolation and guilty. All items, except those related to demographic variables, were scored on a 5-point Likert scale, ranging from 1=strongly disagree to 5=strongly agree. All responses were accumulated. The lowest obtainable score was 15 and the highest was 75, with 15-35=mild symptoms, 36-55=moderate symptoms and 56-75=severe symptoms.

The tool was prepared in English and translated to Arabic and back-translated into English. The two versions were compared until no difference was observed.

The reliability of the tools for demographic and psychological effects for total score and sub-components was ensured using the test-retest reliability method. Alpha score for reliability was 0.85, indicating reliability. Pretesting of the tool with pilot study was done to establish the feasibility and research ability. Content validity of the tool for demographic and psychological effects were established by obtaining opinions and suggestions from the experts in the field of mental health nursing and psychology as well as researchers and statisticians.

Data was analysed using SPSS 22. Fisher's exact test was used to examine the association between independent and psychological distress variables. P<0.05 was considered statistically significant.

Results

Of the 306 respondents, 238(77.8%) were females, 163(53.3%) were age 18-30 years 121(39.5%) were students, 166(54.2%) lived in a joint family, 257(84%) had undergone university education, 157(51.3%) were single, and 247(80.7%) resided in urban areas. Majority of the participants 296(96.7%) was aware of the preventive measures for COVID-19 infection, 221(72.2%) did not think hot weather could prevent an infection, and 229(72.9%) practised handwashing 10 times or less per day. During the lockdowns, 195(60%) participants felt moderate distress symptoms. Emotional distress was significantly interlinked only with female gender (p<0.01) (Table 1). Further, 158(51.7%) subjects said they felt isolated, 100(32.7)% were anxious about virus transmission post-lockdown, 209(68.3%) were sad about the pandemic condition, 209(86.9%) felt angry with self, 245(80%) were worried about the illness, 215(70.3%) had fear of visitors and friends, 271(55.9%) were anxious about any symptoms seen in family members, 157(51.3%) suffered panic over the rising number of deaths, 164(52.6%) had fear of financial burden, 105(34.3%) had difficulty concentrating on work, 135(43.1%) had sleep disturbances, 101(33%) felt helplessness, and 59(19.3%) had the feeling of guilt (Table 2).

Table-1: Demographic characteristics, infection control measures, and psychological distress levels of adults during the lockdowns forced by the coronavirus disease-2019 (COVID-19) pandemic (n=306).

Variables	n (%)	Psychological Distress Level			*p*-value†
		Mild n (%)	Moderate n (%)	Severe n (%)	
Total		**32 (10.5)**	**195 (63.7)**	**79 (25.8)**	
Demographic					
Age (years)					
18-30	163 (53.3)	14 (8.6)	102 (62.6)	47 (28.8)	0.11
30-50	130 (42.5)	16 (12.3)	82 (63.1)	32 (24.6)	
≥50					
13	13 (4.2)	2 (15.4)	11 (84.6)	0 (0.0)	
Gender					
Male	68 (22.2)	13 (19.1)	45 (66.2)	10 (14.7)	<0.01*
Female	238 (77.8)	19 (8.0)	150 (63.0)	69 (29.0)	
Marital status					
Single	157 (51.3)	18 (11.5)	97 (61.8)	42 (26.8)	0.14
Married	136 (44.4)	11 (8.1)	93 (68.4)	32 (23.5)	
Divorced	11 (3.6)	2 (18.2)	5 (45.5)	4 (36.4)	
Widowed	2 (0.7)	1 (50.0)	0 (0.0)	1 (50.0)	
Birthplace					
City	256 (83.7)	28 (10.9)	159 (62.1)	69 (27.0)	0.46
Village	50 (16.3)	4 (8.0)	36 (72.0)	10 (20.0)	

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Table-1: *continued from previous page*

Variables	n %)	Psychological Distress Level			
		Mild n (%)	Moderate n (%)	Severe n (%)	*p*-value†
Total		**32 (10.5)**	**195 (63.7)**	**79 (25.8)**	
Demographic					
Family type					
Nuclear	140 (45.8)	16 (11.4)	86 (61.4)	38 (27.1)	0.74
Joint	166 *54.2	16 (9.6)	109 (65.7)	41 (24.7)	
Area or residence					
Urban	247 (80.7)	27 (10.9)	158 (64.0)	62 (25.1)	0.19
Rural	24 (7.8)	3 (12.5)	18 (75.0)	3 (12.5)	
Semi-urban	35 (11.4)	2 (5.7)	19 (54.3)	14 (40.0)	
Education					
None	2 (0.7)	0 (0.0)	2 (100)	0 (0.0)	0.22
Primary	10 (3.3)	0 (0.0)	7 (70.0)	3 (30.0)	
High school	37 (12.0)	1 (2.7)	30 (81.1)	6 (16.2)	
University	257 (84)	31 (12.1)	156 (60.7)	70 (27.2)	
Occupation					
Healthcare worker	87 (28.4)	10 (11.5)	55 (63.2)	22 (25.3)	0.91
Student	121 (39.5)	13 (10.7)	74 (61.2)	34 (28.1)	
Others	98 (32)	9 (9.2)	66 (67.3)	23 (23.5)	
Working place					
Native place	254 (83)	25 (9.8)	168 (66.1)	61 (24.0)	0.13
Outside state	52 (17)	7 (13.5)	27 (51.9)	18 (34.6)	
Infection Control Measures Preventive measures					
Yes	296 (96.7)	30 (10.1)	189 (63.9)	77 (26.0)	0.55
No	10 (3.3)	2 (20.0)	6 (60.0)	2 (20.0)	
Infection control training					
Yes	92 (30.1)	12 (13.0)	55 (59.8)	25 (27.2)	0.49
No	214 (69.9)	20 (9.3)	140 (65.4)	54 (25.2)	
Perception on hot weather preventing COVID-19 infection					
Yes	85 (27.8)	9 (10.6)	57 (67.1)	19 (22.4)	0.72
No	221 (72.2)	23 (10.4)	138 (62.4)	60 (27.1)	
Handwashing frequency					
0-10 / day	223 (72.9)	21 (9.4)	140 (62.8)	62 (27.8)	0.35
11-20 / day	61 (19.9)	7 (11.5)	43 (70.5)	11 (18.0)	
≥20 / day	22 (7.2	4 (18.2)	12 (54.5)	6 (27.3)	

† Fisher's exact test; * $p < 0.05$

Table-2: Distribution of psychological effects during the COVID-19 the lockdowns forced by the coronavirus disease-2019 (COVID-19) pandemic.

Psychological variables	n (%)		
	Strongly agree / agree	No idea	Strongly disagree / disagree
Feel isolated	158 (51.7)	48 (15.7)	100 (32.7)
Anxious about virus transmission after lockdown	100 (32.7)	48 (15.7)	158 (51.7)
Feeling sad about pandemic condition	209 (68.3)	32 (10.5)	65 (21.3)
Angry toward self	266 (86.9)	14 (4.6)	26 (8.5)
Initiated with others unknowingly	207 (67.6)	43 (14.1)	56 (17.3)
Difficulty in concentrating on work	105 (34.3)	57 (18.6)	144 (47)
Worried about chronic illness of self or family members	245 (80)	19 (6.2)	42 (13.8)
Panic about any symptoms seen in family members	271 (55.9)	42 (13.7)	93 (30.4)
Disturbances in sleeping pattern	135 (43.1)	38 (12.4)	133 (43.5)
Fear of challenging financial burden	164 (52.6)	43 (14.1)	99 (32.3)
Feeling helplessness	101 (33)	58 (19)	144 (48.1)
Difficulty to maintain social distance at home	189 (61.7)	42 (13.7)	75 (24.5)
Panic over rising number of deaths due to COVID 19	157 (51.3)	57 (18.6)	92 (30.1)
Fear to go near any visitors/ friends who come home	215 (70.3)	44 (14.4)	47 (15.3)
Feeling of guilt	59 (19.3)	55 (18)	192 (62.4)

Discussion

The study revealed that more than half of the participants constituted young subjects aged 18-30 years with moderate distress, which was similar to studies done in Chinese and Indonesian populations.[8-10] The study found a significant association between psychological distress and female gender, which is concurrent with other studies.[6-10–14] It is also evident that majority lived in a joint family, where the normal pressure caused during pandemic, coupled with more domestic responsibilities due to lockdown, caused more stress to women[14].

The current study is congruent with a nationwide survey in China showing that people with higher education had more distress. This may be due to their knowledge, exposure and self-awareness.[8]

Regarding infection control measures during the pandemic, the majority of participants practised preventive measures, especially hand-washing for up to 10 times a day, but still experienced moderate distress. This was supported by previous findings.[15] The compliance with infection control measures could be associated with age, gender, education, occupation, health status, self-motivation, regulation, attitudes, information exposure, subjective norm and risk perception of the population.[16–18]

The current findings revealed that two-third of the participants had a moderate level of distress, and a quarter had a severe level of distress, which was similar to earlier studies[19,20]. Considering the domains of psychological effect, a significant proportion of participants were anxious, sad, worried, panicky and sleepless. These are the risk factors for worst mental health outcomes, and were consistent with studies.[21-25] Job security and a sense of control at work are protective of good mental health.[26,27] In the current study, majority reported fear about financial burdens.

Studies have shown that the pandemic caused elevated stress due to long-term psychological impact and its contagious nature.[26-29] In the current study also, many respondents were afraid of death, problems of social distance and fear of visitors and friends.

Isolation was another dominant theme on people's mental health and wellbeing, including the effect of loneliness. Another study revealed that the pandemic and the lockdown in the United Kingdom indicated that issues of loneliness and social isolation were more common.[30] More than half of the participants reported lack of concentration, and inability to focus as the pandemic was troubling their minds. The unprecedented situation forced people to have new habits, and alerted them to the possibility of facing long-term COVID-19 situation.[31]

The current study has its limitations as it did not examine the causal relationship between the variables. Also, the use of convenience sampling could lead to over-representation or under-representation of certain groups in the population.

Conclusion

The COVID-19 pandemic profoundly affected emotional wellness. The pandemic was found linked with moderate stress among the subjects, indicating that lockdowns induced several mental health concerns.

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