

Original Research Article

Fear of COVID-19 among pregnant women in Pakistan: a cross-sectional study

Sidrah Nausheen*, Shelia Bhamani, Areeba Makhdoom, Lumaan Sheikh

Department of Obstetrics and Gynecology, Aga Khan University, Karachi, Pakistan

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*Correspondence:

Dr. Sidrah Nausheen,

E-mail: Sidrah.nausheen@aku.edu

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ABSTRACT

Background: The emergence of COVID-19 and its pandemic nature has exacerbated fears worldwide. Pregnant women are considered a vulnerable group during the COVID-19 pandemic because the physiological changes make them more susceptible to infections. Pregnant women are found expressing much of the fear related to their course of pregnancy, the in-utero transmission of the disease, and questions related to infection control in healthcare settings. Hence, the purpose of this paper was to explore the fears faced by pregnant women related to COVID.

Methods: It was a cross-sectional survey among 201 pregnant women attending antenatal clinics of Aga Khan University Hospital. The survey tool contains demographic variables and a 7-item scale of "Fear in COVID" which is pre tested in the Iranian population. The survey form was made on google drive and sent to pregnant females on WhatsApp.

Results: 201 pregnant women mostly belonging to middle and low socioeconomic class were enrolled. The majority (80%) of women were less than 30 years of age. Only 26 (12.9%) were primigravids, remaining were multigravids of a different order of pregnancy. 60% of our study population showed high fear scores (27-35) from coronavirus whereas another 30% had moderate fear. No association of study variables was found with fear scores.

Conclusions: We found a high level of fear of COVID-19 among the pregnant population with a higher level of anxiety and stress related symptoms. The amount of fear and stress is independent of the trimester or order of pregnancy.

Keywords: Fear of COVID-19, Mental health, Pregnant

INTRODUCTION

The emergence of the COVID-19 pandemic has been a source of exaggerated fears, worries, and anxiety among individuals worldwide.¹ The fear and worry are directly related to infectivity, the medium of transmission, and its potential for associated morbidity and mortality.^{2,3}

In the last three decades, the pandemic of AIDS, SARS outbreak, menacing scenarios of an avian influenza pandemic, and the threat of biological weapons have

increased the concern among health authorities, media, and the public. On January 30, 2020, COVID-19 was called a public health emergency of international concern (PHEIC) by WHO.⁴ Fear associated with COVID-19 affected individuals of every cadre of life leading to other psychosocial challenges like stigma, discrimination, and marginalization. With the greater intensity of fear, individuals often do not think clearly and logically when reacting to COVID-19.^{1,3} Although the majority of patients affected by the disease will recover without any long-lasting consequences, many others will be affected

due to social distancing, isolation, and ultimately depression. Current research in COVID-19 across the world has mostly emphasized infection control, timelines for an effective vaccine, management, and cure, but the psychosocial aspect has yet to be thoroughly studied and taken seriously.³

Researchers in China found in a study that 53.8% of the participants rated the psychological effect of the virus outbreak as moderate or severe. Another nationwide survey of more than 50,000 people in China revealed that about 35% of the respondents experienced psychological distress.⁵ During epidemics and pandemics concerns such as fear of death generally increase among patients, and feelings of loneliness and anger develop among people who are quarantined. Additionally, people who are quarantined lose physical connections and conventional social interactions.⁶

Pregnant women are considered a vulnerable group during the COVID pandemic, because of the physiological changes of pregnancy which make them more susceptible to infections in general. Previous studies have shown a higher risk of serious illness and mortality from viral infections during pandemics such as influenza and Ebola virus. Additionally, viral infections also increase the risk of spontaneous miscarriage and preterm birth.⁷

Researchers agree that women tend to experience increased psychosocial stress during pregnancy. A study of a diverse urban population revealed that 78% of women experienced low-to-moderate antenatal psychosocial stress, whereas high-level psychosocial stress was noted in 6% of cases.⁸ Some of the stress-inducing factors that affect women in pregnancy worldwide include inadequate resources, poor employment conditions, the stress of family and household responsibilities, challenges in intimate relationships, and pregnancy complications.⁸ Even though so far data from many studies suggest that pregnant women are not at an increased risk of contracting the virus or have a greater likelihood of complications, it is important to look for more evidence in this regard.⁹

Although fear is common in almost all sets of population, maternal and child health experts, researchers feel that pregnant women are found expressing much of the fear related to their course of pregnancy, the in-utero transmission of the disease, and questions related to infection control in healthcare settings. They have also expressed their concerns in clinics and in social education live sessions about the safety of having a healthy pregnancy in these times. These fears have a potential risk of putting at stake mental health during these times. In Pakistan, an increasing number of COVID-19 patients has raised concerns about the preparedness of health care systems to flatten the curve and an increase in massive anxiety levels in the public. Hence, the purpose of this

paper was to explore the fears faced by pregnant women related to COVID-19.

METHODS

This was a cross-sectional study conducted among pregnant women attending the antenatal clinics of Aga Khan University Hospital main campus and its affiliated secondary care level hospital Kharadar campus. The purpose of choosing this site is to have a variety and convenience of sampling available. Kharadar campus is conducting more than 2300 deliveries per year. The major turnover of the patients in this setting is the low middle-income population of both urban and rural areas. Total study period was four months. The conception of the study started in April 2020 and the ethical review approval was sought in May 2020 (2020-4740-10509). The study was completed in the month of July 2020.

Sampling

Since there are no prior studies done on this phenomenon, we collected data from 200 pregnant women and explored their fear elements. Since in the times of COVID the physical and in-person interaction is limited all pregnant women registered in AKUH or secondary care hospitals were eligible. All those who did not give consent to participate in the study were excluded. The questionnaire was translated into the local language for those who cannot understand English and is explained to them by health care workers.

Data collection method

A survey form was made on google drive and was sent across to pregnant women by their obstetricians via WhatsApp. There was no face to face interaction or telephonic calls.

The contact details were retrieved from medical records. Data was collected by the physician consultants in their respective clinics using a google drive link. A verbal consent and a brief description of the project were given to participants and when they agreed. The link was shared with them. The data collection took only five minutes of their time. This fast track is adapted due to COVID-19 and limited in-person interaction. Their names personal details or medical record numbers are not being asked in the questionnaire to maintain the anonymity of identity.

Data collection tool

The data collection form was divided into two sections: a) Demographics and b) COVID fear form. A 7-item scale of "Fear in COVID" was used. This scale is developed by researchers from Iran and is validated on a sample size of 700.¹⁰ This is a Likert scale and the participants indicate their level of agreement with the statements choosing any response from "strongly disagree," "disagree," "neither agree nor disagree," "agree," and "strongly agree".

Data analysis plan

The data was analyzed using SPSS version 20. The analysis consisted of simple descriptive of central tendency, Pearson r correlation, and t-test.

RESULTS

This cross-sectional survey was carried out on 201 pregnant women mostly belonging to middle and low socioeconomic class. The majority (80%) of women were less than 30 years of age. Only 26 (12.9%) were primigravids, remaining were multigravidas of a different order of pregnancy Table 1.

Table 1: Characteristics of participant.

Characteristics	N	%
Age (years)		
20-25	61	30.3
26-30	102	50.7
31-40	38	18.9
Pregnancy number		
First	26	12.9
Second	71	35.3
Third	82	40.8
Fourth	17	8.5
Fifth	3	1.5
More than Fifth time	2	1
Trimester		
1st Trimester	36	17.9
2nd Trimester	115	57.2
3rd Trimester	50	24.9
Household income		
15,000-55,000	187	93
56,000-95,000	13	6.5
Above 135,000	1	0.5
Qualification		
None	24	11.9
Matriculation	106	52.7
Intermediate	53	26.4
Undergraduate	9	4.5
Graduate	6	3
Post graduate	3	1.5
Working status		
Home maker	197	98
Business women at home	2	1
Office going	2	1
Co morbidity in pregnancy		
None	177	88.1
Asthma	13	6.5
Diabetes	10	5
Hypertension	1	0.5

More than 50% were in the second trimester, 25% were in the third trimester, and were near delivery.

Table2: Distribution of fear scale of COVID-19.

Fear scale of COVID-19	N	%
I am most afraid of COVID-19		
Strongly disagree	3	1.5
Disagree	24	11.9
Neutral	38	18.9
Agree	106	52.7
Strongly agree	30	14.9
It makes me uncomfortable to think about COVID-19		
Strongly disagree	4	2
Disagree	26	12.9
Neutral	38	18.9
Agree	105	52.2
Strongly agree	28	13.9
My hands become clammy when I think about COVID-19		
Strongly Disagree	2	1
Disagree	27	13.4
Neutral	41	20.4
Agree	103	51.2
Strongly agree	28	13.9
I am afraid of losing my life because of COVID-19		
Strongly disagree	2	1
Disagree	23	11.4
Neutral	38	18.9
Agree	107	53.2
Strongly agree	31	15.4
When watching news and stories about COVID-19 on social media, I become nervous or anxious.		
Strongly disagree	1	0.5
Disagree	19	9.5
Neutral	35	17.4
Agree	109	54.2
Strongly Agree	37	18.4
I cannot sleep because I'm worrying about getting COVID-19		
Strongly disagree	1	0.5
Disagree	22	10.9
Neutral	33	16.4
Agree	109	54.2
Strongly agree	36	17.9
My heart races or palpitates when I think about getting COVID-19		
Strongly disagree	2	1
Disagree	20	10
Neutral	32	15.9
Agree	110	54.7
Strongly agree	37	18.4
Fear level of COVID-19		
Low (7-16)	19	9.5
Moderate (17-26)	61	30.3
High (27-35)	121	60.2

Method of constructing fear level of Coronavirus-19: The using a 5-point likert scale ranging from 1(Strongly Disagree) to 5 (Strongly Agree). These scores can be added to obtain a total fear score. Total score ranges from 7 (minimal score) to 35 (maximal score). Scores for low anxiety range from 7-16; moderate anxiety from 17-26; and high anxiety from 27 to 35.

The majority (98%) were homemakers and the maximum education level was up to higher secondary school in 78% of women.

Table 3. Comparison between fear level and study variables.

Character-stics	Low (7-16) n=19	Moderate (17-26) n=61	High (27-35) n=121	P value
Age (years)				0.30
20-25	3 (4.9)	22 (36.1)	36 (59.0)	
26-30	12 (11.8)	25 (24.5)	65 (63.7)	
31-40	4 (10.5)	14 (36.8)	20 (52.6)	
Pregnancy number				0.41
First	4 (15)	10 (38)	12 (46)	
Second	7 (10)	18 (25)	46 (65)	
Third	7 (9)	25 (30)	50 (61)	
Fourth	0 (0)	6 (35)	11 (65)	
Fifth	0 (0)	1 (33)	2 (67)	
More than Fifth time	1 (50)	1 (50)	0 (0)	
Trimester				0.07
1st Trimester	5 (13.9)	5 (13.9)	26 (72.2)	
2nd Trimester	9 (7.8)	35 (30.4)	71 (61.7)	
3rd Trimester	5 (10.0)	21 (42.0)	24 (48.0)	
Household income				0.67
15,000-55,000	18 (9.6)	56 (29.9)	113 (60.4)	
56,000-95,000	1 (7.7)	4 (30.8)	8 (61.5)	
Above 135,000	0 (0.0)	1 (100.0)	0 (0.0)	
Qualification				0.31
None	3 (12.5)	7 (29.2)	14 (58.3)	
Matriculation	7 (6.6)	33 (31.1)	66 (62.3)	
Intermediate	5 (9.4)	15 (28.3)	33 (62.3)	
Undergraduate	3 (33.3)	1 (11.1)	5 (55.6)	
Graduate	1 (16.7)	3 (50.0)	2 (33.3)	
Post Graduate	0 (0.0)	2 (66.7)	1 (33.3)	
Working status				0.91
Home Maker	19 (9.6)	59 (29.9)	119 (60.4)	
Business women at home	0 (0.0)	1 (50.0)	1 (50.0)	
Office going	0 (0.0)	1 (50.0)	1 (50.0)	
Co morbidity in pregnancy				0.70
None	17 (9.6)	54 (30.5)	106 (59.9)	
Asthma	2 (15.4)	5 (38.5)	6 (46.2)	
Diabetes	0 (0.0)	2 (20.0)	8 (80.0)	
Hypertension	0 (0.0)	0 (0.0)	1 (100.0)	

Household income was less than 55,000/- Pakistani rupees per month in 93% of households. The majority (88%) were healthy with no co-morbid however few had asthma and diabetes. We used the Likert scale for measuring the fear of coronavirus infection.

A 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (strongly agree) was used. These scores were added

to obtain a total fear score ranging from 7 (minimal score) to 35 (maximal score). Scores for low fear ranged from 7-16; moderate fear from 17-26; and high fear from 27-35. Table 2 shows the intensity of fear of coronavirus among young pregnant women. 60% of our study population showed high fear scores (27-35) from coronavirus whereas another 30% had moderate fear. We also looked

at the association of our study variables with the amount of fear of COVID-19 as shown in Table 3.

Although the majority of pregnant women scored high fear on the scale, there was no statistically significant difference in fear score in relation to the number of pregnancies or differences in pregnancy trimesters. There was no association of fear score with education level and household income. Our data do not support any association of co-morbid in pregnancy with fear as numbers are quite less.

DISCUSSION

The findings from the data elicit that 60% of the sampled population is undergoing a high level of fear with the COVID-19 pandemic during pregnancy. There could be several reasons for it. Contextually reflecting, Pakistani society is complex and majorly strewn across the divide of urban and rural populations. This divide comes along with diverse mindsets, viewpoints, cultural differences, and levels of education. The majority of pregnant women are ill-informed, lack the necessary resources to learn credible information and facts, and have limited access to healthcare professionals due to the quickly spreading virus.^{11,12} Women are also prone to contracting infections during pregnancy due to modified immunity, thus more than 60% of the women surveyed revealed fear for their unborn child's safety and were worried about visiting their obstetrician and missed essential antenatal visits.¹³ Many women have developed complications due to stress and anxiety but did not visit the hospital due to a high level of fear. More than a quarter of pregnant women randomly tested in a city in Pakistan came out positive for COVID-19, indicating a high level of contagion among pregnant women.¹⁴

We found mixed feelings of pregnant women regarding COVID-19 infection during the survey as reported in other studies from Pakistan.¹¹ More than 70% felt palpitations and feelings of sinking heart when they think about coronavirus. Women who have access to teleconsultation and professional healthcare reported ease in the spaced-out antenatal visits by their doctors. Women are, however, concerned about their health and that of their babies when they go for a delivery, which is their major challenge for now.¹²

The apprehensions are commonly due to the sensationalism in reporting news in the media.^{11,15} Seventy-three percent of pregnant women in our survey reported nervousness and anxiety while watching the news or using social media. There is information overload, highlighting the failing healthcare system more often. Undermining positive health outcomes with COVID-19 infection in social media is one of the major contributory factors for increasing the level of stress and anxiety. While pandemic is novel and the people unable to respond proactively to the situation because of lack of preparedness, social media can play a strong role in

creating optimism, and educate the masses on being responsible, compassionate and united.¹⁶

Women are experiencing all sorts of indicators of stress in their bodies.^{17,18} Pregnant women have been reporting that thinking about the disease and the state of their vulnerability breaks them into a cold sweat. Women feel sweaty in the palms and jittery at the thought of contracting the virus. In our study, 65% of pregnant women reported clammy hands while thinking about getting coronavirus. About 72% reported insomnia and sleep disorders related to COVID-19 during pregnancy as reported by others.¹⁹ Pregnant women in Pakistan are also subject to neglect in most rural settings and frequently in urban households. Misleading information coupled with stress, poor maternal health, and limited prospects of timely medical intervention as well as fear and anxiety of contracting the virus during any unfortunate social interaction is becoming scary prospects for women and their families.^{17,20} The cessation of social mobility has hampered many pregnant women, and due to the hormonal changes in pregnancy coupled with stress and anxiety over the isolation and uncertainty, pregnant women have been reported to have developed hypertension during pregnancy.^{11,21}

Overall maternal morbidity and mortality rates are among the highest in Pakistan. Pakistan is among the six countries that account for 50% of global deaths due to complications in pregnancy and birth.²¹ With the already unsatisfactory healthcare outcomes for women, in particular, the unprecedented burden of COVID-19 pandemic on healthcare could have a detrimental impact on pregnant women's health and well-being. Coupled with the anxiety and stress build-up due to sensationalism in the media, pregnant and lactating women, in particular, have reported that their concerns and fears are growing during COVID-19.¹⁵ Fear of losing life due to coronavirus is reported by 68% of pregnant women in our study which indicates an out of proportion high level of stress. While pregnant women are worried about hospital visits, lactating mothers are deeply concerned about the well-being of their babies. The global health organization advisories CDC and UNICEF, need to implement various modes of communication for these women to alleviate their stress and anxiety and educate them on helpful tips and measures for prevention and care.^{22,23} Reliable and credible information should be provided to women from hospitals and opportunities to get connected with their doctors over the phone and preferably over a video conference. Well-planned mass communication by government and media agencies would significantly help and support pregnant and lactating women during COVID-19.¹⁶

Due to the building stress and hormonal changes in women, many have reported insomnia or sleep-related problems during pregnancy in the wake of the coronavirus disease.²⁴ High-risk pregnancies and especially women approaching the end of their third

trimester are reporting troubled sleep, restlessness, and increased unease due to their growing fears and apprehensions.¹¹ In our study we could not find any association of fear with trimester of pregnancy or gravidity. Also, there was no association between fear and the level of education and working status. However, 68.6% of pregnant women in our study verbalized that watching social media and television has increased their fear and stress.

Women are being advised to accept the challenges of the COVID-19 pandemic. Since they tend to become more stressed during pregnancy, they are advised to divert their thoughts, find productive pursuits, and continue to live life normally.²⁵ Pregnant women must be supported to develop resilience and a strong mindset in choosing to follow precautionary measures for their well-being and for that of others.²⁶

Hypertension and palpitations are often a response of the body to fear, anxiety, and stress. Pregnant women have reported hypertension and palpitations upon news of the quickly spreading virus; social distancing and isolation requirements due to symptoms similar to COVID-19; infected spouse or family member; death in the family, and other alarming news. The pandemic is a stressful time for most people and pregnant women seem to be more vulnerable among the cohorts including the elderly and children.^{15,27} Doctors and healthcare experts advise limiting negativity and overload of information by balancing home routines with an activity of choice that can divert the mind towards productive outcomes.²⁵

Limitations

Due to the high COVID-19 surge pregnant woman from diverse settings could not be approached due to restrictions. Due to small sample size the results cannot be generalized. Another study with diverse population and bigger sample is recommended for future implications.

CONCLUSION

Our findings suggest a high level of fear of COVID- 19 infection among the pregnant population with a higher level of anxiety and stress related symptoms. They are worried about their health as well as the health of their newborn babies. The amount of fear and stress is independent of the trimester or order of pregnancy. Better counselling and telehealth clinics are the way forward for these women. The government along with many hospitals and healthcare organizations has launched Telehealth Programs and helplines for women and people in general, to consult about symptoms, treatment, and prevention. Pregnant women should be advised not to ignore persisting symptoms of physical or mental ill-health and consult the healthcare provider at an early stage to prevent any complications which can result in adverse pregnancy outcomes.

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REFERENCES

1. Guan WJ, Ni ZY, Hu Y. Clinical characteristics of coronavirus disease 2019 in China. *N Engl J Med*. 2020;382:1708-20.
2. Haung C, Wang Y, Li X. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet*. 2020;395(10223):497-506.
3. Lin CY. Social reaction towards the 2019 novel coronavirus (COVID-19). *Social Health Behav*. 2020;3:1-2.
4. Organization WH. Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV). 2005.
5. Sher L. COVID-19, anxiety, sleep disturbances and suicide. *Sleep Medicine*. 2020;70:124.
6. Zandifar A, Badrfam R. Iranian mental health during the COVID-19 epidemic. *Asian J Psychiatry*. 2020;51:101990.
7. Zhao X, Jiang Y, Zhao Y, Xi H, Liu C, Qu F. Analysis of the susceptibility to COVID-19 in pregnancy and recommendations on potential drug screening. *Eur J Clin Microbiol Infect Dis*. 2020;23:1-12.
8. Woods SM, Melville JL, Guo Y, Fan MY. Psychosocial stress during pregnancy. *Am J Obst Gynecol*. 2010;202(1):61-7.
9. Elshafeey F, Magdi R, Hindi N, Elshebiny M, Farrag N. A systematic scoping review of COVID-19 during pregnancy and childbirth. *Int J Gynecol Obst*. 2020;150(1):47-52.
10. Ahorsu DK, Lin CY, Imani V. The fear of COVID-19 scale: development and initial validation. *Int J Ment Health Addict*. 2020:1-9.
11. Haider SB. Stressful times: What it feels like to be pregnant amid the pandemic. Available at <https://tribune.com.pk/story/2205663/1-stressful-times-feels-like-pregnant-amid-pandemic/>. Accessed on 12 July 2020.
12. Hossain N, Samuel M, Sandeep R, Imtiaz S, Zaheer S. Perceptions, generalized anxiety and fears of pregnant women about corona virus infection in the heart of pandemic. Available at [https:// assets.researchsquare.com/files/rs-32235/v1/8167fe6a-38e5-4a17-ac93-65354ce20fd4.pdf](https://assets.researchsquare.com/files/rs-32235/v1/8167fe6a-38e5-4a17-ac93-65354ce20fd4.pdf). Accessed on 10 August 2020.
13. Javaid S, Javaid MK. Survey on corona virus: a case study in Pakistan. *Int J Med Sci Clin Res Review*. 2020;3(02):223-7.
14. Butt WA. Covid-19 rate among pregnant women alarming. Available at [https:// www.dawn.com/news/1555401/covid-19-rate-among-pregnant-women-alarming](https://www.dawn.com/news/1555401/covid-19-rate-among-pregnant-women-alarming). Accessed on 20 August 2020.

15. Garza A. How social media is shaping our fears of and response to the coronavirus. Available at <https://time.com/5802802/social-media-coronavirus/> Accessed on 20 August 2020.
16. Karasneh R, Azzam S, Muflih S, Soudah O, Hawamdeh S, Khader Y. Media's effect on shaping knowledge, awareness risk perceptions and communication practices of pandemic COVID-19 among pharmacists. *Res Social Admin Pharmacy*. 2020;4:55-9.
17. Rajkumar RP. COVID-19 and mental health: A review of the existing literature. *Asian J Psychiatr*. 2020;52:102066.
18. Aschwanden D, Strickhouser JE, Sesker AA. Psychological and behavioural responses to coronavirus disease 2019: the role of personality. *Eur J Pers*. 2020;10:1002.
19. Altena E, Baglioni C, Espie CA, Ellis J, Gavriloff D, Holzinger B, Riemann D. Dealing with sleep problems during home confinement due to the COVID-19 outbreak: Practical recommendations from a task force of the European CBT-I Academy. *J Sleep Res*. 2020;3:e13052.
20. Mukhtar MS. Mental health and psychosocial aspects of coronavirus outbreak in Pakistan: psychological intervention for public mental health crisis. *Asian J Psychiatr*. 2020;51:102069.
21. Mir AM. Keeping mothers safe while battling Covid-19. Available at <https://tribune.com.pk/story/2180499/6-keeping-mothers-safe-battling-covid-19/>. Accessed on 20 August 2020.
22. CDC. Pregnancy and breastfeeding. Available at <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/pregnancy-breastfeeding.html>. Accessed on 20 August 2020.
23. UNICEF. Millions of pregnant mothers and babies born during COVID-19 pandemic threatened by strained health systems and disruptions in services - UNICEF. Available at <https://www.unicef.org/rosa/press-releases/millions-pregnant-mothers-and-babies-born-during-covid-19-pandemic-threatened>. Accessed on 20 August 2020.
24. Li W, Yang Y, Liu ZH, Zhao YJ, Zhang Q, Zhang L, et al. Progression of mental health services during the COVID-19 outbreak in China. *Int J Biol Sci*. 2020;16(10):1732.
25. AKU. COVID-19: Risks and precautions during pregnancy and after childbirth. Available at https://www.aku.edu/news/Pages/News_Details.aspx?nid=NEWS-002117. Accessed on 20 August 2020.
26. The News International. Covid disparities. Available at <https://www.thenews.com.pk/print/654523-covid-disparities>. Accessed on 20 August 2020.
27. Kowal M, Martín CT, Ikizer G, Rasmussen J, Eichel K, Studzinska A, et al. Who is the most stressed during covid-19 isolation? *Asian J Psychiatr*. 2020;1:102-9.

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