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Psychosocial Aspects of Covid-19 and Self-confidence: we can beat it.

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Abstract

Background & Objectives
During the outbreak of the pandemic COVID-19, there is urgent need for intervention to protect the victims and their family members, high risk individuals, health care workers from the secondary mental health crises associated with the disease. In vague of the above-mentioned rationale we did a survey to assess the psychosocial aspects of the COVID-19 and level of self-confidence of the respondents in centre based study.

Material & Methods
A cross-sectional survey was conducted in March 2020. A total of 82 of the respondents were selected via convenient sampling, irrespective of age and gender for their knowledge of psychosocial impacts of COVID-19. Relevant information's regarding the impact of COVID-19 on mental health was collected on a pre-designed proforma prepared in accordance with the objectives of the study.

Results
The minimum age of the respondents was 20 years with a maximum of 50years. The mean with standard deviation of the respondents was 51+13 years. Thirty-Four (41.5%) were qualified practitioner with medical qualification and 48 (58.5%) were medical students and non medics. We observed a significantly higher difference in opinion of male gender (vs female gender*)* regarding their level of confidence in the fight against COVID-19 *(p=0.02,OR=4.5),*panic and anxiety they had (*p=0.001, OR=0.12)*and expectations from government in current situation*(p=0.01,OR=3.9).*

It was observed that male gender is more of favor of ban on videos related to COVID patients as compared to female gender (p-0.005). The fear regarding the shortage of food was not significantly higher in both genders (p-0.724). The level of confidence in both genders insignificantly differ (0.03). Furthermore, the fear regarding the shortage of food was more in the youngsters (age=20-30 years) (p-0.03). Majority of the youngster and adult age responders were confident based on their spiritual guidance of religion and adopting the precautionary measure that they can beat Covid-19 (p- 0.048).

Conclusion
We received a significant response of the respondents with higher level of self confidence, motivation and will to fight COVID-19. Although the respondents admitted that COVID-19 has disturbed their daily routine and income but they were committed that they will win the battle against COVID-19.

Key words
COVID-19, Confidence, Anxiety, and depression

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Introduction

Corona Virus disease (COVID-19) is caused by a virus called SARS-COV2 and is a potentially fatal disease with associated social stigma.[1] Extensive measures have been taken by the authorities to reduce its spread, person to person transmission to control the current epidemic.

Since the first case of COVID-19 reported in China in early Dec 2019, and by February 2020 the cases crossed 17000 in China, the Chinese government ordered strict quarantine across the country.[2] Isolation and quarantine in one way to contain the virus but on other hand exposes the individual to psychosocial stress, being deprived from mental health counseling.[3] During the outbreak of COVID-19 in China, more than half of the patients developed state of anxiety and depression.[4] COVID-19 has caused serious physical (in term of morbidity and mortality) and psychosocial threat to the lives of the people as well. It has triggered a wide range of problems such as panic disorders, anxiety and depression.[5]

Psychologically it is a fact that when the living environment changes all sudden, people feel un-easy, unsafe and anxious.[6] The etiology of the COVID-19 is yest not clear and this flourish the rumors that can create a stigma in public. The global times Newspaper, from China reports that the Innocent people of Wuhan were blamed unfairly at national and international levels, and the same the Chinese people experienced at international forums for a natural disaustor.[7]

People adherence to preventive and precautionary measures is essential, which largely depends on the knowledge attitude and practice of people toward COVID-19 in accordance with Knowledge attitude and practice (KAP) theory. Zhong BL *et al*[8] observed that the majority (90.8%) of the participants in their study were optimistic to succeed in winning the war against

corona virus. Studies from China have reported that education level of clients increases the confidence 3- 5 times more to win the battle against COVID-19, *(OR: 3.13-5.04, P<0.001).*[8,9]

Present study was designed to assess the psychosocial stress of COVID-19 on the respondents, and to determine their level of confidence in the wartime against 2019 nCoV.

Material & Methods

A cross-sectional research design was conducted in March 2020. A pre-validated questionnaire comprising 8 items was administered. A total of 82 of the respondents were assessed for their knowledge regarding the psychosocial aspects of (COVID-19). All the respondents irrespective of age and gender with minimum qualification of bachelor's degree were included. Respondents with qualification less than bachelor degree were excluded from the study with an exception for 4th year medical students of Nowshera Medical College.

The questionnaire had 2 parts. There were preliminary information's of the respondents regarding their name, age, email, qualification, and nature of employment. The second part containing information's about the knowledge of the respondents about COVID-19 virology, transmission, precautions, treatment options, impact of COVID-19 on social life, social distancing, and level of confidence to fight 2019-nCoV.

Ethical approval was taken from the institutional ethical review board of Nowshera Medical College before the execution of the survey. Prior informed consent was attained from all the contestants and they were assured of confidentiality. We distributed the questionnaire though email and in hard copies and the responders were given option to submit it via email or by hand.

Data was entered in SPSS version 25 for descriptive analysis of various variables. Frequency and percentage were calculated for different categorical variables. Binary logistic regression analysis was used to show the psychosocial impact of COVID-19. Chi-square test was used to determine the association of different psychosocial factors with categories of age and gender of the respondents.

Results

A total of 82 respondents completed the survey. Forty-one were females and 41 male responders. Out of total 45(54.9%) were in the age range 15-25 years of age followed by 31(37.8%) in age 26-35 years of range. out of total, 34 (41.5%) were qualified practitioner with medical qualification and 48 (58.5%) were medical students and non medics. (Table 1).

Using multiple regression analysis in gender group of the respondents for different 8 psycho-social variables related to COVID-19, we observed a significantly higher difference in opinion of male gender (vs female gender*)* regarding their level of confidence in the fight against COVID-19*(p=0.02, OR=4.5)* panic and anxiety (*p=0.001, OR=0.12*) and expectations from government in current situation *(p=0.01,OR=3.9).*(Table 2).

Using Chi-square test we observed that there was a significant understanding in gender groups that the videos of Covid-19 are disturbing and must not be shown. Male gender is more of favor of ban on videos related to COVID patients as compared to female gender (p-0.005). The fear regarding the shortage of

Table 1. Demographic informations of the respondents

1.Gender of the Respondents	Frequency
Male	41 (50%)
Female	41(50%)
2. Age categories of the Respondents	
Age range	Frequency
15-25	45(54.9%)
25-35	31(37.8%)
36-50	6(7.3%)
3.Profession of the respondents	
Profession	Frequency
Doctors/GP/Specialist	34(41.5%)
Students/Bachelor/Master/technician	48(58.5%)
Total	82(100%)

Table 2. Gender Groups and regression analysis of variables.

S. No.	**Questions/ Psychosocial stress factor**	**Significance (p-values)**	**Exp(B)- Odds Ratio**
1	The videos of Covid-19 are disturbing and must not be shown	0.144	0.689
2	Reasons of Spread of disease	0.625	1.375
3	Has it disturbed your daily routine and income	0.126	2.786
4	Information on importance of isolation and social distancing	0.999	0
5	Are you panic/anxious	0.001	0.133
6	Do you afraid of food shortage in the prevalent situation	0.28	1.863
7	Your opinion on relief from Government in this situation	0.01	3.953
8	What keeps you confident	0.029	4.535
	Constant	0.999	510.479

food was not significantly higher in both genders (p-0.724). Male gender again is more in accordance with the observation that Isolation is an important Precautionary measure in covid-19 as compared to female gender (p-0.06). The level of confidence in both genders insignificantly differ (0.08). (Table 3)

Using Chi-square test on impact of Covid-19 on different age groups, we observed that there was insignificant difference in opinion of different age responders that the videos of Covid-19 are disturbing (p-0. 516). The fear regarding the shortage of food unlikely gender group was more in the youngsters (age=20-30 years) genders (p-0.03). Majority of the youngster and adult age responders were confident based on their spiritual guidance of religion and adopting the precautionary measure that they can beat Covid-19 (p- 0.048). (Table 4)

Discussion

We did this survey on respondents with age (Mean with SD of 51+13 years. There was a significant difference in opinion of male gender (vs female gender*)* regarding their level of confidence in the fight against COVID-19., the responders were panic and had anxiety. they had expectations from government in current situation in term of food and health issues during the expected lockdown. It was observed that male gender was more in favor of ban on videos related to COVID patients as compared to female gender. The fear regarding the shortage of food was more in the responders. Majority of the youngster and adult age responders were confident based on their spiritual guidance of religion and adopting the precautionary measure that they can beat Covid-19.World Health Organization Director General of Global hazard preparedness said that in every epidemic the fear and stigma goes side by side, when

Table 3. Chi-square test to show the impact of different psychosocial stress factor associated with COVID-19 on gender groups

Question-1	**The videos of Covid-19 are disturbing and must not be shown**						
	SA	**A**	**D**	**SD**	**No comments**	**Total**	**p-value**
Gender of the respondents							
Male	8	2	23	5	3	1	0.005
Female	10	10	20	0	1	41	
Total	15	12	43	6	6	82	

Question-2	**Do you afraid of food shortage in lockdown**				
	yes	**no**	**no comments**	**Total**	**p-value**
Gender of the respondents					
Male	27	12	2	41	0.724
Female	20	16	5	41	
Total	47	25	10	82	

Question-3	**Isolation is important Precautionary measure in covid-19**				
	SA	**A**	**D**	**Total**	**p-value**
Gender of the respondents					
Male	34	3	4	41	0.06
Female	40	1	0	41	
Total	74	4	4	82	

Question-4	**Which think keep you confident in this situation**						
	Government measures	**Spiritual guidance of My religion ISLAM**	**Precautionary measures**	**awarenes+ Cleanliness**	**No comments**	**Total**	**p-value**
Gender of the respondents							
Male	1	15	17	7	1	41	0.034
Female	1	25	9	5	1	41	
Total	2	37	26	17	2	82	

Table 4. Chi-square test to show the impact of different psychosocial stress factor associated with COVID-19 on different age groups

Question 1	**The videos of Covid-19 are disturbing and must not be shown**						
	Strongly agree	**Agree**	**Disagree**	**Strongly Disagree**	**No comments**	**Total**	**p-value**
Age of the responder							
20-30	5	8	27	3	2	45	0.516
31-40	8	3	14	3	3	31	
41-50	2	1	2	0	1	6	
Total	15	12	43	6	6	82	

Question 2	**Do you afraid of food shortage in lockdown**				
	yes	**no**	**no comments**	**Total**	**p-value**
Age of the respondent					
20-30	31	9	5	45	0.036
31-40	14	14	3	31	
41-50	2	2	2	6	
Total	47	25	10	82	

Question 3	**Isolation is important Precautionary measure**					
	Strongly Agree	**Agree**	**Disagree Disagree**	**Strongly**	**Total**	**p-value**
Age of the respondents						
20-30	40	1	2	2	45	0.217
31-40	28	3	0	0	31	
41-50	6	0	0	0	6	
Total	74	4	2	2	82	

Question 4	**Which think keep you confident in this situation**						
	Government measures	**Spiritual guidance of My religion ISLAM**	**Precautionary measures**	**Awarenes+ Cleanliness**	**No comments**	**Total**	**p-value**
Age of the respondents							
20-30	1	23	15	5	1	45	0.048
31-40	0	12	11	5	3	31	
41-50	1	2	0	2	1	6	
Total	2	37	26	12	6	82	

people get fear, stigma develops and that what healthcare worker do is to reduce the fear to reduce the stigma.[10] The fear and stigma sometimes are more dangerous for a society, especially what we observed in Wuhan China, where they faced blaming for spread of virus, they were rejected, remained anxious, angry and even hunted.[11]

A case report from the India revealed an Indian mistakenly thought to have been infected with COVID-19, committed suicide to protect his near and dears.[12] A section of the Chinese population had a misconception regarding Covid-19 and think it to be a part of a biological war.[11,13] This misconception was rejected/denied by the respondent in present study. Female gender was more conscious, more worried, more panic, with low confidence in this wartime, while the male gender confidence was 4.5 time higher and were committed to fight against COVID-19.

Zhong BL *et al*[8] also have observed that (90.8%) of the participants in their study were optimistic to get succeeded in winning the war against corona virus, that strongly correlates our findings. Studies from China have reported that education level of clients increases the confidence 3- 5 times more to win the battle against COVID-19, that matches our findings.[8,14]

Italy, the second mostly affected country, with 88% cases of SARS-CoV infection with history of travel to the epidemic area were initially reported in Lombardian and Veneto regions.

They attributed these infections with poor compliance of the people towards precautionary measures during the early stages of current epidemic in the country.[15]

The levels of understanding the importance of isolation and social distancing are the key to contain virus, besides of its adverse impact on social life. China did it very well. The National health commission of China issued protocols and guidelines with the slogan of "Big isolation and big disinfection" during the Chinese spring festival on 28th Jan 2020.[16] We also noticed that male gender is more of opinion that isolation/quarantine is an important precautionary measure/strategy in Covid-19.

The advent of vaccines, public hygiene and precautions have largely controlled and eliminated infectious diseases. However, in COVID-19 the etiology and pathogenesis is not clear and the one thing that can help and improves the confidence is adopting precautionary measures, gaining more knowledge about the disease, its transmission and role of social distancing. Panic spread of the overwhelming information's increases stigma and anxiety rather than what is caused by the disease itself. That is the same what the world experienced with Zika virus that was a mild viral disease without a great impact, that had vertical transmission and some cases of birth defects, had created a stigma around the globe for its related morbidities.[17] And that's how taking China as example again, where unprecedented measures were taken well in time to control the rapid spread of COVID-19. They succeeded to limit people to homes and was largely achieved by their improved Knowledge, attitude, and practices towards COVID-19 and by increasing their self-confidence about the disease.[18]

The limitation of this study was limited number of the respondents with one setting/Hospital/institution. Future studies should focus large population with representation of all sectors to have a better outcome to predict/suggest the findings for decision making by the competent authorities to prevent disastrous pandemic.

Conclusion

The respondents have sufficient knowledge about COVID-19 pandemic, its prevention, precautionary measures during the early outbreak across the country. Besides the challenges in term of limited resources, the severity of the disease, stigma, fear and anxiety associated with the disease, the enthusiastic approach of the respondents was a sign of confidence that as a nation we will win the war against virus.

There is need for multi-disciplinary approaches through advocacy, social mobilization for social distancing and distant communication through utilization of technologies is the need of time.

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