



## KNOWLEDGE, PERCEPTION AND PRACTICE RELATED TO COVID-19 AND MENTAL HEALTH AMONG ADULTS IN PAKISTAN.

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### ABSTRACT.

**INTRODUCTION:** Covid-19 (Coronavirus disease 2019) a universal community wellbeing emergency upsetting millions of individuals all over the globe. To surround the transmissions of this virus diverse and unusual paces had been taken. The intensities with familiarity and application of precautionary measures associated with COVID-19 in Pakistani cities are blurred. Furthermore, here is scantiness of data in regard to the influences of covid-19 on the mental wellbeing of subjects. **OBJECTIVE:** To evaluate the mental health status and to express information and practices associated to COVID-19 amongst subjects in Khairpur and related regions. **Place:** Khairpur medical college Khairpur Mirs. **DURATION:** The research was held from 15 March 2020 to 15 June 2020 for duration of 03 months. **DESIGN:** cross sectional. Data collection: after the consent data was collected on predesigned profoma and filled accordingly. **Data analysis:** data was analyzed in terms of quantative and qualitative aspects, age, gender and other demographic variables were assessed. Frequencies and percentages were calculated, different statistical tests were applied thru SPSS version 22. **RESULTS:** The mean age of subjects was 44.41SD 12.99 years with minimum 28 and maximum 70years. knowledge about Symptoms of COVID-19, knowledge about Transmission methods, and knowledge about Preventive actions, 70.8%, 75.0% and 72.0% respectively. Gender \* Anxiety, depression, and psychological distress scores was assessed in subjects and found statistically significant in present study. Gender wise Perception, knowledge about Symptoms of COVID-19, Gender wise Perception, knowledge about knowledge about Transmission methods, and Gender wise Perception, knowledge about preventive actions COVID 19 was assessed in subjects of study this was statistically insignificant. **CONCLUSION:** In large number of the adults charted for levels of familiarity with COVID-19, the precautionary measures were very low particularly for eluding public crowds that is one of the back bones in preventive procedures. It was also concluded from current study that the depression was very common in general population.

**KEYWORDS:** COVID-19, risk perception, media exposure, compliance with prevention

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### INTRODUCTION

The coronavirus ailment (COVID-19) caused by the SARS-CoV-2 virus appeared in Wuhan city of China in December 2019.<sup>1</sup> WHO affirmed COVID-19 as a global community health emergency in January 2020 and later on as a pandemic in March 2020 due to its rapid progression and great mortality.<sup>2,3</sup> Control measures such as; detection and isolation of active cases, tracing for contacts, quarantine (community quarantine), social distance were

interventions to control COVID-19 disease.<sup>4,5</sup> Consequently, administrations forced to restrict travel and movements, proscribed public crowds, established lockdown (partial or generalized), and encouraged processes for improving hygienic conditions and preventing transmissions of the virus.

The efficacy of suggested precautionary procedures depends on the compliance of community. The defensive enthusiasm schemes suggest that person's passivity with

the precautionary methods is subjected with the levels of risk acuity concerning the existing well-being risks.<sup>6</sup> According to protection motivation theory, Peoples self-defense related to the current threat depends on four factors. The apparent cruelty, probability of the occurrence, or vulnerability, the efficacy of the recommended preventive behavior and the perceived self-efficacy of the threatening event.<sup>6</sup> The person's contact to diverse levels of knowledge also affects the level of risk perception.<sup>7</sup>

Media facilitated in providing the available up-to-date information for improving, attentiveness, and practice for healthcare workers as well as general community. The epidemics of the COVID-19 gripped the attention of social media, press and news. A substantial role in generating information and awareness of society for COVID-19 was played in online health information also.<sup>8,9</sup>

The COVID-19 pandemics have the potentials to have a noteworthy influence on people's mental wellbeing in our country. Earlier researches had described an upsurge in mental wellbeing issues amongst the overall populace succeeding epidemic or pandemic.<sup>10,11</sup>

Data proposes an ascent in the quantity of new cases and intensification of past psychological wellbeing issues around the world after the COVID-19 pandemics.<sup>12</sup>

Psychological wellbeing is likewise a significant thought for COVID-19 reaction since it influences individuals' practices and feelings, which thusly influences consistence to the suggested general wellbeing safety measures.<sup>14</sup>

It too influences individuals' variation and capacity to adapt with changes in strategies. Pandemics-associated psychological wellbeing issues might be brought about by alleviation measures like lockdown, confinement, social isolation, and travel limitations.<sup>10,11,15,16</sup>

Raised levels of stress and uneasiness are the leading public psychological well-being effects of the pandemic. Further adverse psychological conditions such as; post traumatic anxiety, depressive disorders, and unsafe use of alcohol as well as drug abuse. These are anticipated to augment the enhanced financial burden related with pandemic.<sup>17,18,19</sup> Disease familiarity, disgrace, and discernments are associated to short term consequences. Socio economic influences like; loss of work/earnings and disturbances to everyday practices are related with long term mental wellbeing circumstances.<sup>12,19</sup>

Considering the regional frail well-being carefulness structures and undersized mental wellbeing facilities in Pakistan, with the sudden surge of COVID-19 cases, the mental health impacts of COVID-19 will be severe. Assumed this probable liability in the Pakistan, confirmation is required to conclude the level of the problems and reinforce mental wellbeing and sustenance as fragment of the COVID-19 reaction. A large number of resources and sites used by individuals resulted in misinformation and made it very difficult to discriminate amongst reality and rumors because most of the information obtained were from unreliable sources. Hence, we have confidence in that by appreciating the levels of risk discernment, apparent effectiveness of precautionary procedures, and to part of facts and figures disclosure on pliability comportment amongst the overall community might assist in struggling contrary to pandemic of COVID-19.

#### METHODOLOGY

Current research was a cross sectional online study via a question form. Different ways were used for good coverage as to enlist more study subjects all through Khairpur. Respondents were called to freely join in the study. Duration: **The research was held from 15 March 2020 to 15 June 2020 for the duration of 03 months.** Socio-demographic and socioeconomic characteristics, risk awareness concerning COVID-19, awareness of the efficiency of suggested precautionary procedures, statistics regarding exposure, professed statistics trustworthiness, and passivity to precautionary methods were the components of questionnaire. Gender, age, matrimonial status was included in Socio-demographic characteristics. Literacy levels, occupational position, and domestic earnings were used to access the Socio-economic status. COVID-19 risk perceptions were measured by fictional vulnerability and apparent harshness. The subjects for the apparent likelihood of being septic with COVID-19 under existing precautionary procedures and also apparent significance of COVID-19 were asked for measuring susceptibility. The apparent likelihood of the infection, in the families or friends in forthcoming period by the COVID-19 or they contract COVID-19 from families or friends and levels of fear related to COVID-19 were asked from subjects for assessing the perceived susceptibility. The apparent severity of COVID-19 was inquired from subjects as; to comment approximately for the chances of having COVID-19 cured, persisting after infection, having no symptoms and the

chances of being having mild disease in a 5-point Likert scale, and the professed seriousness of diseases as: very serious or not serious at all.

## DATA PROCESSING AND STATISTICAL ANALYSIS

### RESULTS

The mean age of subjects were 44.41SD 12.99 nyears with minmum 28 and maximum 70years.

	N	Minimum	Maximum	Mean	Std. Deviation
Age	400	28	70	44.41	12.996
Valid N (listwise)	400				

Age, Age group, Gender, Marital status, Address, Education level, Addiction and Occupation frequency and percentages were shown in table 2 below.

		Frequency	Percent
Age Group	20-40 years young age	193	48.3
	41-60 years middle age	121	30.3
	>60 years old age	86	21.5
Gender	Male	278	69.5
	Female	122	30.5
Marital Status	Married	359	89.8
	Un-Married	41	10.3
Occupation	No Occupation	61	15.3
	House Wife	122	30.5
	Manual Worker	177	44.3
	Office Worker	40	10.0
Education	Educated	250	62.5
	Un-Educated	150	37.5
Address	Rural	273	68.3
	Urban	127	31.8
addiction	No	288	72.0
	Yes	112	28.0
SE Class	Poor Class	360	90.0
	Middle Class	32	8.0
	Upper Class	8	2.0
Total		400	100.0

### KNOWLEDGE ABOUT TRANSMISSION METHODS

Headache, Fever, Cough, Muscle weakness, Runny nose, Muscle and joint aches, Shortness of breath, Loss of smell and Rashes were the common clinical features and asked about the **like**; Through respiratory droplets in the air from infected persons, Through objects and surfaces contaminated with the virus, Through physical contact with an infected person<sup>1</sup>, Through mosquito bites **and** Through cellular mobile networks was assessed. The knowledge was **Knowledge on symptoms**

Knowledge on transmission Knowledge on prevention Total knowledge on COVID-19 **knowledge about Symptoms of COVID-19, knowledge about Transmission methods, and knowledge about Preventive actions,70.8%, 75.0%and 72.0% respectively.** Stay at home when not working, Put distance (at least 2 meters, Wash hands often with soap and running water<sup>1</sup>Use hand sanitizer<sup>1</sup>Cover cough and sneeze<sup>1</sup>Wear a mask were common precautions..

	Frequency	Percent

	yes	283	70.8
	no	117	29.3
	Total	400	100.0
<b>knowledge about Transmission methods,</b>			
	yes	303	75.8
	no	97	24.3
	Total	400	100.0
<b>knowledge about Preventive actions,</b>			
	yes	291	72.8
	no	109	27.3
	Total	400	100.0

### **Gender \* Anxiety, depression, and psychological distress**

**Gender \* Anxiety, depression, and psychological distress scores was assessed in subjects and found statistically significant in present study. As shown in table**

		Anxiety, depression, and psychological distress scores				Total	
		none 0-2	mild 3-5	moderate 6-8	severe 9-12		
Gender	male	Count	55	25	174	24	278
		% of Total	13.8%	6.2%	43.5%	6.0%	69.5%
	female	Count	3	103	10	6	122
		% of Total	0.8%	25.8%	2.5%	1.5%	30.5%
Total		Count	58	128	184	30	400
		% of Total	14.5%	32.0%	46.0%	7.5%	100.0%
<b>Chi-Square Tests</b>							
		Value	df	Asymp. Sig. (2-sided)			
Pearson Chi-Square		224.420 <sup>a</sup>	3	.000			
Likelihood Ratio		234.281	3	.000			
Linear-by-Linear Association		24.314	1	.000			
N of Valid Cases		400					

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.15.

### **PERCEPTION**

#### **Gender wise Perception, knowledge about Symptoms of COVID-19, Perception, knowledge about knowledge about Transmission methods and knowledge about preventive actions COVID 19**

**Perception**, Trust COVID-19 pandemic is actual. Identify anybody that had been sickening from COVID-19. Preventive practices: Regular wash hands with soap and water, disinfecting surfaces, keeping distance from sick people. Keeping bodily distances from each person that is not a family member. Stop going to societal meetings, churches, or mosques. Wearing face mask Stocking up of food, home supplies and medicine. Changing/canceling travel plans. Access to clean water and soap For handwashing I Have water for hand washing, Gender wise Perception, knowledge about Symptoms of COVID-19 COVID 19, Gender wise Perception, knowledge about knowledge about Transmission methods, and Gender wise Perception, knowledge about preventive actions COVID 19 was assessed in subjects of study this was statistically insignificant as shown in Table Feeling nervous, anxious, or on edge Not being able to stop or control worrying Feeling down, depressed, or hopeless Little interest or pleasure in doing things were assessed in subjects as shown in table

Gender		Perception		knowledge about Symptoms of COVID-19		Total	Pearson Chi-Square
				yes	no		
male	Perception,	yes	Count	133	41	174	.152
			% of Total	47.8%	14.7%	62.6%	
		no	Count	87	17	104	
			% of Total	31.3%	6.1%	37.4%	
	Total		Count	220	58	278	
			% of Total	79.1%	20.9%	100.0%	
female	Perception,	yes	Count	43	39	82	.800
			% of Total	35.2%	32.0%	67.2%	
		no	Count	20	20	40	
			% of Total	16.4%	16.4%	32.8%	
	Total		Count	63	59	122	
			% of Total	51.6%	48.4%	100.0%	
Total	Perception,	yes	Count	176	80	256	.241
			% of Total	44.0%	20.0%	64.0%	
		no	Count	107	37	144	

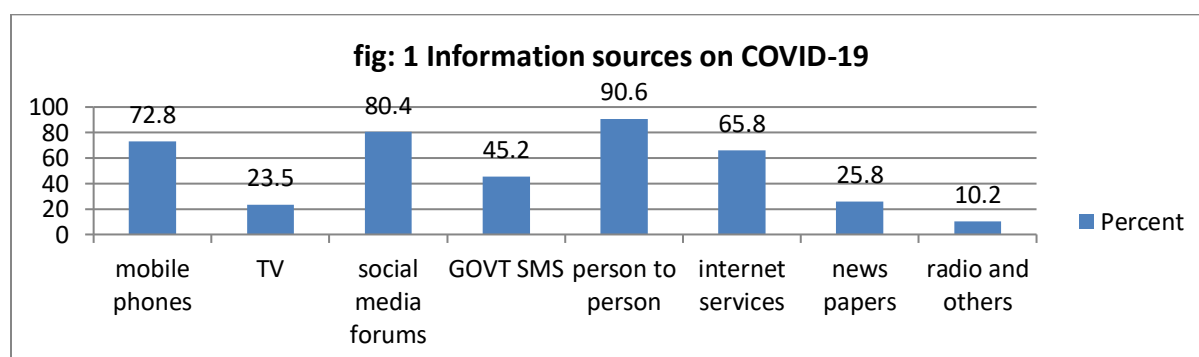
		% of Total	26.8%	9.2%	36.0%	
Total		Count	283	117	400	
		% of Total	70.8%	29.2%	100.0%	

**Table 7: Gender wise Perception, knowledge about knowledge about Transmission methods, Crosstab**

Gender			Knowledge about Transmission methods,		Total	Pearson Chi-Square	
			yes	no		Asymp. Sig. (2-sided)	
male	Perception,	yes	Count	135	39	174	.169
			% of Total	48.6%	14.0%	62.6%	
	no	Count	73	31	104		
		% of Total	26.3%	11.2%	37.4%		
	Total		Count	208	70	278	
		% of Total	74.8%	25.2%	100.0%		
female	Perception,	yes	Count	62	20	82	.389
			% of Total	50.8%	16.4%	67.2%	
	no	Count	33	7	40		
		% of Total	27.0%	5.7%	32.8%		
	Total		Count	95	27	122	
		% of Total	77.9%	22.1%	100.0%		
Total	Perception,	yes	Count	197	59	256	.454
			% of Total	49.2%	14.8%	64.0%	
	no	Count	106	38	144		
		% of Total	26.5%	9.5%	36.0%		
	Total		Count	303	97	400	
		% of Total	75.8%	24.2%	100.0%		

**Table 8: Gender wise Perception, knowledge about preventive actions COVID 19 Crosstab**

Gender			knowledge about Preventive actions,		Total	Pearson Chi-Square	
			yes	no		Asymp. Sig. (2-sided)	
male	Perception,	yes	Count	125	49	174	.095
			% of Total	45.0%	17.6%	62.6%	
	no	Count	84	20	104		
		% of Total	30.2%	7.2%	37.4%		
	Total		Count	209	69	278	
		% of Total	75.2%	24.8%	100.0%		
female	Perception,	yes	Count	55	27	82	.962
			% of Total	45.1%	22.1%	67.2%	
	no	Count	27	13	40		
		% of Total	22.1%	10.7%	32.8%		
	Total		Count	82	40	122	
		% of Total	67.2%	32.8%	100.0%		
Total	Perception,	yes	Count	180	76	256	.144
			% of Total	45.0%	19.0%	64.0%	
	no	Count	111	33	144		
		% of Total	27.8%	8.2%	36.0%		
	Total		Count	291	109	400	
		% of Total	72.8%	27.2%	100.0%		



Regarding the information about COVID 19, the observation detailed multi source information in the same subject included in study, means same subject got information from multiple sources as indicated above.

**DISCUSSION**

Diverse actions were taken by the government of Pakistan in response to the pandemic of COVID-19. Borders, educational institutions (including schools,

colleges, and universities) were closed. Nightclubs and entertainment outlets were shuttered. Social distancing measures were announced. Retired and in-training medical personnel were called for National Health Service. Mandatory 14-days quarantine at designated hotels for all people entering from other countries was managed at the traveler's expenditure. Prime Minister affirmed a state of emergency. Most of the states have banned inter-regional community transportation and community assemblies. The universal borders remained fully closed with other republics. The community health information movements counselling individuals to assume hygienic methods as to defend themselves and others were decided by government. Hand washing repeatedly by using soap and water, and in the event of inaccessibility of soap and water hand washing by utilizing hand sanitizer. Covering the mouth and nose with a tissue or sleeve when coughing or sneezing were the other strategies announced by authorities.

The level of depression, anxiety, and psychological distress in countryside and town locations among Pakistani adults with relation to COVID-19 knowledge and practices were described in this study. The levels of familiarity regarding the transference and prevention were found to be generally raised in comparison to information about the presentation of COVID-19. Even though having greater level of information, the ratio of subjects applying suggested preventive measures were less. Most often used sources to achieve COVID-19 related knowledge were television and media. Male subjects had higher levels of knowledge of COVID-19 symptoms as shown in our study. Better literacy levels, metropolitan inhabitants, and those individuals who assumed that the pandemic is factual were found to have also great knowledge. Facts about the transmission mechanism were greater amongst male subjects with older age, in persons with high literacy levels, city dwellings, and also in those assumed that the pandemic is actual. Better knowledge of prevention was also demonstrated in subjects with higher education, living in the cities, and trusting in the reality of pandemic. Access to several information resources and a greater mandate for COVID-19 statistics was assumed in male educated individuals living in cities for their higher knowledge. Occupational and/or economic status of the individuals might be associated with higher knowledge but were not analyzed in this study.

Throughout pandemics health information delivered to the common people is an essential constituent of prevention and control stratagems. In the course of previous communicable disease epidemics like SARS and H1N1, the conventional mass media were substantial resources of knowledge that facilitated creating community consciousness.<sup>20 21</sup>

Current study also revealed that conventional broadcastings were the chief described resources of information regarding the pandemics.<sup>22</sup>

In the existing research, the majority of survey contestants mentioned intact sleep patterns. This could be due to the reason that the most horrible effects of the pandemic were not observed in this state. The disease burden was lesser in comparison to the other European and the American states.<sup>23</sup>

Financial catastrophe, the intimidation of joblessness, fright of dropping household fellows, and frail health care structures might leads to massive psychosomatic worry and nervousness in the area through COVID-19.<sup>12, 24</sup>

Furthermore, distraction of health allied manners is also intensely associated with worry, despair, and nervousness.<sup>25</sup>

Lower levels of nervousness and despair amongst adults were observed in in the three countries in SSA, contrasting to further studies which disclosed a higher percentage of both nervousness and despair.<sup>26,27,28,29</sup>

In Ibadan greater levels of nervousness associated with the pandemic and similarly recommended that insomnia is positively associated with despair and nervousness.<sup>10</sup>

A small number of adults described sleep disruption conversely, in the recent research, and this might be one cause for the lesser level of despair and nervousness.

Lower percentages of emotional suffering were established in current study. Reformed stratagems and interferences are necessary to discourse the effects of the pandemic on mental wellbeing.

For improving the availability and approachability of mental wellbeing facilities, public health personnel could be educated to deliver mental wellbeing instructions, screenings, and psychotherapy facilities at the public levels.<sup>12</sup>

Numerous vital strengths are present in current study. Current study comprised different city and countryside locations in Pakistan. Identical tools and methods were used through settings to intensify comparability through nation. High-quality data was generated remotely by means of computer based telephonic interviews.

Computer-assisted telephonic interview surveys generated equivalent statistics to those directed by face-to-face analyses. This has the lowermost error levels in comparison to other telephonic survey approaches.<sup>30</sup>

#### LIMITATIONS:

As the mobile platform was used for data collection in this study, only the house-holds having mobile phones have been involved in the study. Conversely, house-hold mobile phones permeation rates are high in various locations of Pakistan.

Secondly, facts composed in this survey were self-described; this bounds the conclusion that we can make approximately the definite behaviors and performs of the contestants. Third, the survey contestants were not particular to be descriptive of each country's larger local and national residents, limiting the generalizability of our findings. Nonetheless, the data collected in this study is useful since it gives a fuller picture of the population groups analysed in Pakistan for knowledge, practice, and mental health.

#### CONCLUSION

The large number of the individuals polled had a good understanding of COVID-19. Self-reported adoption of preventative strategies was lower, particularly related in avoiding of social gatherings that is one of the utmost essential preventive measures. This research also revealed several recognized misunderstandings about COVID-19 transmission methods. Community health administrators must develop or strengthen COVID-19 risk communiqué stratagems that take into account the target population and use the available communication channels. The pandemic is still in its early stages, and additional waves are likely before an effective vaccination is introduced on a large basis in Pakistan. As a result, there is a constant necessity to develop facts in an attempt to understand the epidemic and associated health concerns among Pakistanis.

**ETHICS APPROVAL:** The ERC gave ethical review approval

**CONSENT TO PARTICIPATE:** written and verbal consent was taken from subjects

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