



Sindh Mental Health
Authority



***SINDH MENTAL HEALTH AUTHORITY
IN COLLABORATION WITH
HEALTH AND NUTRITION DEVELOPMENT SOCIETY (HANDS)***

Research Report On

Psychosocial Impact of Covid-19:

A Cross Sectional Survey of Sindh, 2021

Research Stakeholders:

- Sindh Mental Health Authority (SMHA)
- Health And Nutrition Development Society (HANDS)
- Dow University Of Health Sciences (Psychiatry Dept.)
- Liaquat University of Medical and Health Sciences (Community Health Dept.)
- University Of Karachi (Psychology Department)
- Shaheed Zulfiqar Ali Bhutto Law College Malir
- Edhi Foundation



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Sindh Mental Health Authority, Staff Members

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Impact of Covid19 Pandemic on Mental Health in the Population of Sindh, Pakistan

MESSAGE: CHAIRMAN, SINDH MENTAL HEALTH AUTHORITY

Sindh Mental Health Authority, being a Regulatory Authority, has we all know, has a mandate assigned through formal Act of Parliament. The COVID-19 pandemic changed the scenario of the Society, how things are conducted, with an impact on individual as well as collective aspects of society and government. Keeping this in mind, we at the level of Authority, tried to focus on specific areas of concerns, mental health is one such area of concern - producing empirical evidence.

SMHA made collaboration with HANDS to embark upon the difficult task of collecting and producing an authentic and reliable data. This can help us at societal and Government level to plan and Implement right short-term, mid-term and long-term policy direction. To take the related academic and social Institutes along with us we invited Dow University of Health Sciences, Liaquat University of Medical and Health Sciences, University of Karachi, Shaheed Zulfiqar Ali Bhutto Law College, Malir and Edhi Foundation to partner us in this task. Survey was conducted from May to June, 2021.

HANDS under the guidance of their Chief Executive Officer, Dr. Sheikh, Tanveer carried out an excellent work. Their presence at all the selected Districts provided timely support. The work was appropriately supervised by experts' team members; Ms. Hina Fayyaz, Dr. Humera Naeem, Mr. Qamar Shaikh and Ms. Rubina Jafri did timely and efficient work to support the project.

Dow University of Health Sciences, Department of Psychiatry was represented by Professor & Chair, Dr Haider Ali Naqvi. He supervised the technical tasks of research and helped us produce the initial analysis and survey report well. He was a valuable support due to his vast experience of research which provided the much needed impetus to the project.

The Vice Chancellor, Professor Dr. Bikha Ram from LUMHS provided his own keen insights and guidance, as always, whole heartedly. On his guidance, Prof. Dr. Khalida Memon, and her team at Department of Community Medicine provided the needed support and direction. Special thaks goes to Dr. Muhammad Ilyas Siddiqui, Associate Proferssor, Dr. Gulazar Usman, Associate Professor and Dr. Ambreen Sehto, Assistant Professor from the Department of Community Medicine, LUMHS.

As we required direction on social matters and to address the issues related to community mobilization we contacted the Edhi Foundation. Mr. Faisal Edhi, CEO Edhi Foundation, helped us from the initial planning to the completion of task. He added areas on which he has a wonderful knowledge working on the ground with different communities. He was kind enough to give his precious time, whenever required, helping the team with his keen insights. His support is greatly acknowledged.

Psychology is an important aspect of mental health. We appreciate the contribution of Prof. Dr. Qudsia, Head of Psychology Department, Karachi University, along with her team of Psychologists. She and her team did wonderful job on capturing the qualitative research through Focus Group Discussion tool. Similarly Shaheed Zulfiqar Ali Bhutto Law College Principal, Mr. Riaz Baloch, also helped and supported our field work. I would also like to highlight the house support

of Dr. Muhammad Suleman Otho (Consultant SMHA) for his insights as a Chest Physician and Public Health professional. The whole activity would not have been possible without the support of the Secretary of SMHA, Mr. Irshad Khokhar and member SMHA & consultant psychiatrist Dr. Syed Ali Wasif.

On the whole this is a galaxy of wonderful Institutions and inspiring individuals. I hope this report will go a long way to help our community to endure this pandemic and become a self-resilient Nation.

Senator Dr. Karim Ahmed Khawaja,
Chairman, Sindh Mental Health Authority



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The Sindh Mental Health Survey is the first of its kind which assesses the psychological, social and economic impact of COVID-19. Different stakeholders came together to conduct this survey under the umbrella of Sindh Mental Health Authority led by Dr Karim A. Khawaja. The data was collected from a representative sample of rural and urban Sindh; eight focus group discussions were conducted with diverse individual. Total of 1494 individuals were interviewed from the province. Among them 757 were from rural setting, while 737 were from urban areas. About 48% were males while 52% females. The average household members were 7 (\pm 3.6). The average house hold income was Pak. Rs 28,000/-. About 20% individuals reported to be effected by COVID-19. The reported mortality was around 3.8% with vaccination rate of 33% in the overall sample. Almost 62% reported major loss of income or earning which was more pronounced in rural (81%) then urban (43%) setting. When asked directly, 24% individuals reported receiving funds through EHSAS Program/Government agencies. The estimated prevalence of depression as assessed on self-reporting questionnaire (SRQ-21) was 42%. Among the participants 10% reported to have received any psychiatric diagnosis. The overall prevalence of self-reported anxiety was 85%. When assessed on perceived risk of COVID-19 around 87% participants reported that it posed low risk. This perception was more prevalent in rural (91%) then urban setting. The general findings suggest poor understanding of risks associated with transmission and infection with COVID-19. Around 69% participants reported adequate social support through family, friends and informal support networks. When inquired about the financial constraints, 36% reported borrowing money while 21% reported selling property, possessions or livestock to make ends meet. Around 32% individuals reported that they are able to respond resiliently when change occurs; in terms of having one close relationship to confide in times of stress, 40% individuals reported it to be true, nearly all the time. The findings of this survey are expected to help design strategies from relevant Government agencies, NGOs', INGOs' & concerned stakeholders.

Background

Corona Virus Disease 2019 (COVID 19) recently emerged in Wuhan, China. The virus presents with dry cough, dyspnea, fever and lung infiltrates on imaging. The disease was immediately named as Severe Acute Respiratory Distress Syndrome 2 (Sars-Cov-2) but was named as COVID 19 by World Health Organization (WHO). Though majority of patients affected with the disease has mild to moderate symptoms, but some especially elderly patients, develop severe respiratory distress resulting in admission in Intensive Care Unit and ultimate death. These serious findings forced WHO to declare COVID 19 as an International public health emergency. As the number of cases started to emerge and increase quickly in other parts of the world, WHO declared COVID 19 as a pandemic on March 11th 2020.⁶ The disease is highly contagious and some of the epidemiologist have predicted that it will infect around 70% of the world population.

According to WHO there are 184, 820, 132 confirmed cases of COVID-19 so far with **4,002,209 people** deaths as of June 18, 2021. If mental health care delivery strives to be of service to others, then they have to keep an eye on issues pertinent to National significance and Global developments. Public health research which is related to policy implementation, and tailored for the utility of stake holders, needs collaborative research. The field of health economics is important to help the health systems deal with demands of COVID-19. A study showed that 53% of general population rated the psychological impact of the outbreak as moderate or severe, 16.5% reported moderate to severe depressive symptoms, and 28.8% reported moderate to severe anxiety symptoms. Female gender, being a student, having symptoms of COVID-19, and poor perceived health were associated with higher rates of anxiety and depression. Evidence shows that people in different affected areas of COVID-19 may face various psychological stressors and suffer from different mental health problems (e.g. anxiety, depression, insomnia): People in severely affected areas may be more likely to have psychological problems (e.g. anxiety, depression) than those in less affected areas. Although evidence shows that the rates of anxiety and depression in infected patients are significantly higher than that in general population, few studies have been conducted to explore the differences of psychological problems (e.g. anxiety, depression) in general population in different affected areas of COVID-19 outbreak.

Considering the impact of COVID-19 on mental health, Sindh Mental Health Authority (SMHA) with Health and Nutrition Development Society (HANDS) decided to carry out this survey, with other stakeholders, from May to June, 2021.

The Sindh Mental Health Authority (SMHA) Bill 2013 having been passed by the provincial Assembly of Sindh on 19th September, 2013 and assented to by the Governor of Sindh on 30th October, 2013 is hereby published as an Act of the Legislature of Sindh. The Sindh Mental Health Authority has been formed in 2013 under act passed by the Sindh Assembly. The execution of the act took place in August 2017. Dr Karim Khawaja, Senator, is the current Chairman of SMHA. The HANDS was founded by Prof. A. G. Billoo, pediatrician, in 1979. It's a Non-Profit Organizations of the country. Currently HANDS working with a network of 35 branches across the country. The survey was carried out in twelve districts. Six districts were selected purposefully from the rural settings while six from Urban setting. The Marvi workers working with the HANDS were used for data collection in rural setting. Six field sites representing various districts were selected from Karachi and Hyderabad to represent the urban population were collected by Liaquat University of Medical and Health Sciences (Community Health Department) and Karachi University (Psychology Department). The sample was collected as stratified random sampling technique (technical details can be obtained from the Authority, SMHA). We report the initial findings of the survey in this report, attaching the supplemental information in the appendices.

Socio-demographic characteristics:

A total of 1494 individuals were enrolled with a mean age of 38.86 (\pm 11.66). Among these 757 (Mean Age, 38 \pm 10.1) were from rural setting while 737 (Mean Age, 39.72 \pm 12.3) were from urban settings (see table 1). About 48% were males while 52% were females. Gender ratio was almost reverse between urban and rural settings. More males (73%) represented in the urban setting (24.4%), while more females were enrolled (75.5%) in rural compared to urban (27.41%). The gender difference makes the overall sample more representative of the Province. The majority of individuals were Muslim (n=1399; 94%); other religious identity was Hindu (5.56%).

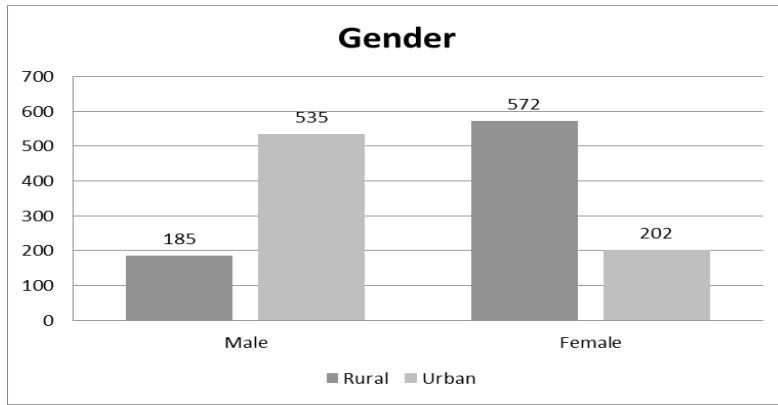


Fig. 1: Gender Difference in Rural & Urban Setting

The household size, i.e. number of members living in the family unit was 7 (± 3.68). The average (median) household income was Pak. Rs 12,000/- in the rural setting while Pak. Rs. 60,000/- in urban setting with average income of Pak. Rs 28,000/- (Mean, 56947 ± 112833). The number of earning members was 1.67 which was slightly less in rural than urban setting (1.45 vs. 1.90). In terms of household setting, around 56% people lived in nuclear set-up compared to joint (39%). Most were married ($n=1154$; 79%) in our sample. More married housewives represented in the rural setting (52%) compared with urban (7%). More individuals reported monthly income in urban setting (65%) compared to rural (47%). Daily wage workers were more common in rural set-up (40%). Ownership of livestock was more common in rural setting (29%).

The educational status varied in the rural to urban setting; with 66.45% individuals reporting no formal education in rural setting compared to 8.55% in urban setting. On the other extreme 55% reported graduate or higher qualification in urban setting compared to 29.45% in rural setting. We inquired about the number of years of education of the head of household member. It was divided into four categories with none, 1-5 years, 6-9 years and 10 years or more. In terms of the education of the head of the household, 64% had no formal education in rural setting which was 12% in urban setting (average 38% with no formal education). The ratio was almost reverse in terms of higher education ($10>$) with 69% in urban and 17% in rural setting. The trend was same in other two categories with slightly higher numbers in urban than rural setting.

In terms of education given to children, 56% household reported Private, Urdu medium education given to children. In urban area around 51% children were enrolled children in private,

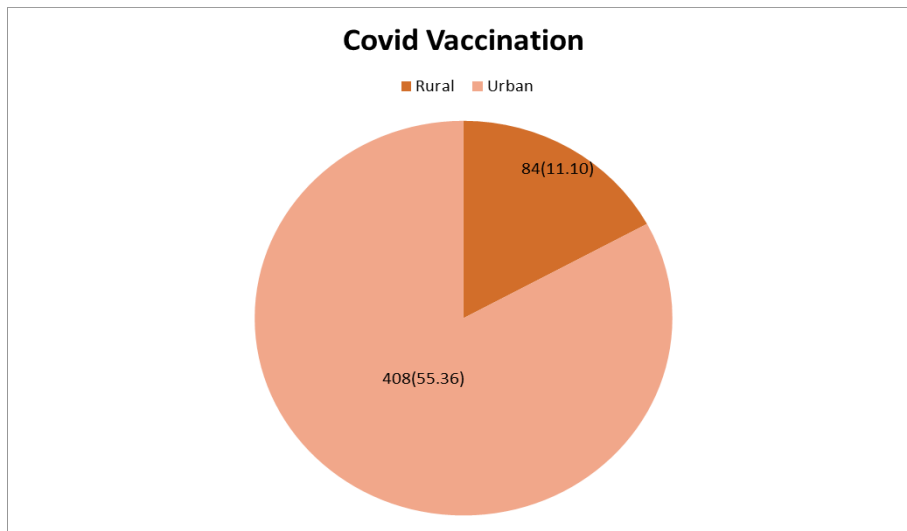
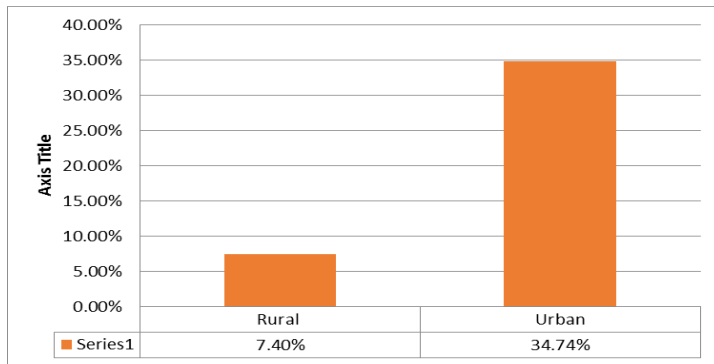
English medium education system. Around 28% reported no formal education for children; 40% of children in rural and 17% children in rural settings were out of school.

More unskilled and skilled labor was reported occupation in rural setting (34%) while more professionals (30%) represented in urban setting. A significant majority reported doing business (16.55%) in urban setting compared to (0.13% in rural).

In terms of mode of transport, 47% household in urban, and 37% in rural setting, reported having a motorcycle. A sizable majority (43%) in rural setting reported no mode of transport. Paradoxically about 13% household reported having two or > vehicles. Around 30% households reported land ownership of 10 acres or <. Ownership of property and house was somewhat similar with 67% and 54% in rural and urban setting, respectively. Roughly around 24% individuals lived in rented house in urban settings which was almost half in the rural. 82% households reported gas supply in urban set-up while around 94% people used firewood with or without mud stove for cooking on daily basis. Roughly around 50% households reported inside house toilet system with running water supply. Outside toilet was also more common in rural settings (30%). About 30-to-35% households reported 1 to 3 electrical appliances to help with daily life chores (see Table 3, Annexure 1 for SES variables)

COVID-19 Status:

The survey inquired about the status of COVID-19 infection status during the preceding year. The overall case positive rate was 20%. About 35% individual reported to be positive cases (n=256) in urban setting which was 7.4% (n=56) in rural setting. The mortality in our sample was reported to be 3.8%. When we inquired about the vaccination status, 33% of the overall sample reported to be vaccinated, with either one or two doses. Among this group, 11% were from rural Sindh while of the 55% of Urban.

Fig. 2: COVID-19 Case Positive**Fig. 3: COVID-19 Vaccination Status**

Economic Impact of COVID-19

When we asked about the economic impact of COVID-19, almost 62% reported being affected one way or another, which was more pronounced in rural (81%) than urban (43%) setting. The participants were asked to rate the loss in terms of 'major loss of income or earning' and 'some loss of income and earning' (see table 1).

Table 1: Economic Impact of COVID-19

Livelihood Affected by COVID- 19		
	Rural (n)	Urban (n)
Major loss of Income & Earnings	619	317
Some reduction of Income & Earnings	138	420

When we inquired about receiving financial support through EHSAS Program, or some other Government agency, about 76% individuals reported no financial assistance. Only 24% responded in affirmation to receiving funds through Government support programmes. The amount received was average of Pak Rs. 12,037 (46 ± 2851). We also asked about the impact of lockdown imposed due to COVID-19 pandemic. Around 13% reported loss of wage or income and loss of business & livestock trade, respectively.

Inference

If one is to calculate the total loss of income in absolute numbers then it would be Pak. Rs 7, 358,040 in rural setting and Pak Rs 19,014,600/- on monthly basis (Population multiplied with house hold income and fraction of effected individuals, e.g., 737x 60,00 equals: 44,220,000/- Pak Rs @ 43% effected: 19,014,600; 757x12,000 equals: 9, 084,000 @ 81%: 7,358,040/ Rs.

Grand total loss of earnings: 53,304,000/- Pak Rs per month.

Food source or security was also threatened with 72% reporting that they don't have enough money to buy food. In terms of changes in the quality of diet or food intake, 38% reported change in the items of routine food intake during the COVID-19 pandemic. This was roughly double in rural (50%) in rural then urban setting (25%). See Table 2 (Appendices 1)

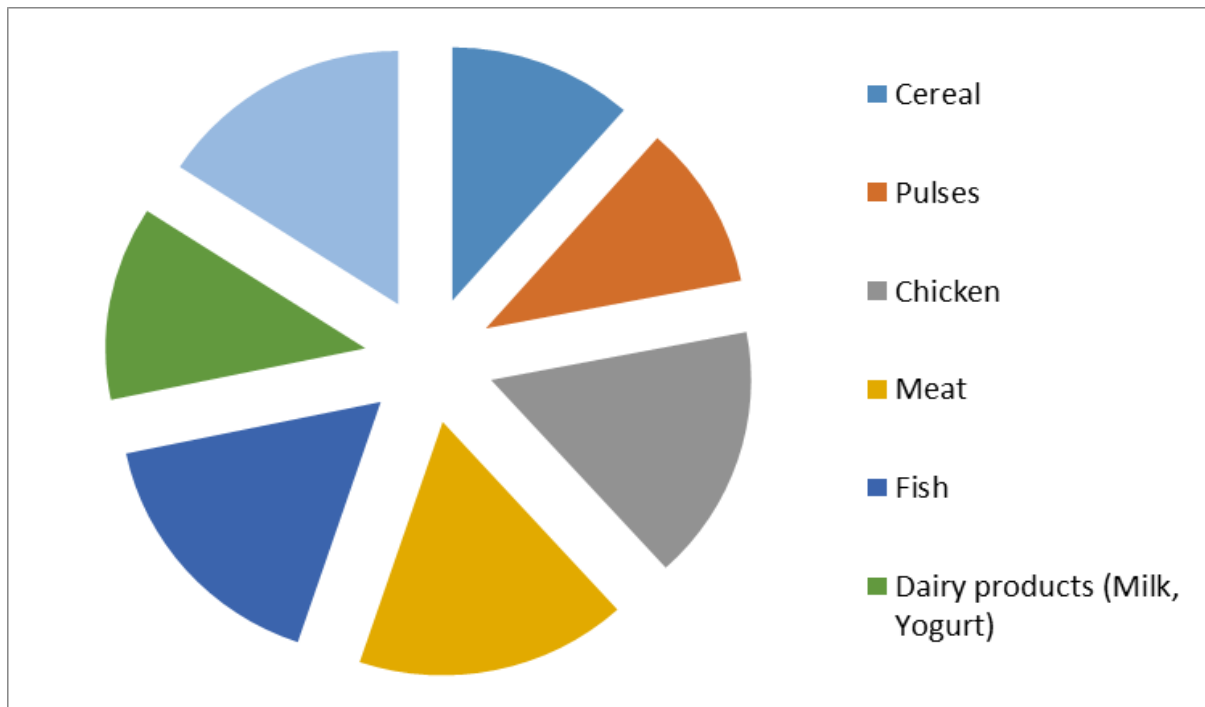


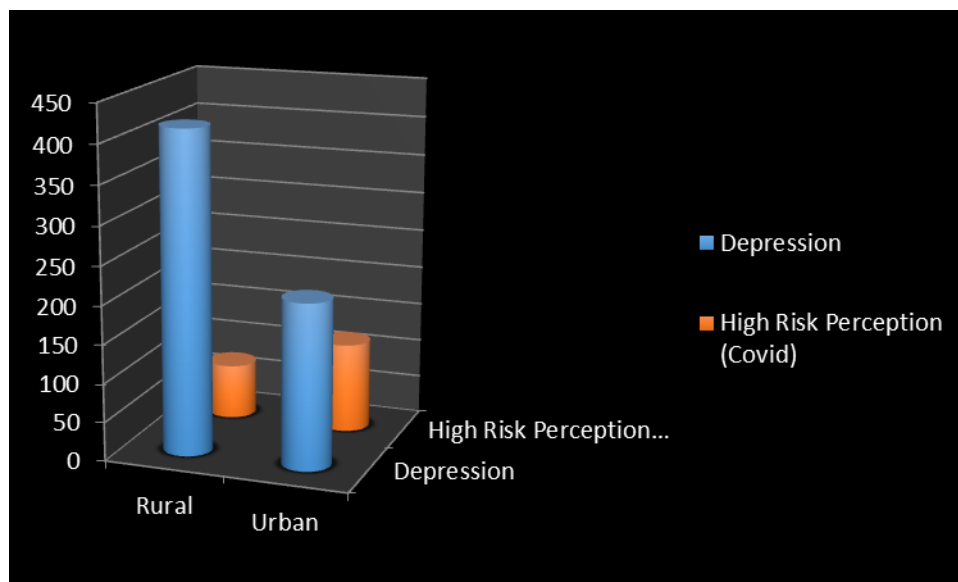
Figure 4: Food Item insecurity

Impact of COVID-19 on Mental Health

In order to assess the morbidity related to depression and anxiety, the Self Reporting Questionnaire (SRQ-21), was administered. The SRQ is an instrument developed by World Health Organization (WHO) for screening depression and anxiety disorders. It has been validated and adapted for cross cultural use in an Urdu speaking population. Its distinct advantage is in its dichotomous response (yes/no) to symptoms.

The estimated prevalence of depression as assessed on self-reporting questionnaire (SRQ-21) was 42%. Noteworthy was higher prevalence of depression in rural setting (55%) compare to urban (29%). This finding is congruent to international figures. The previous epidemiological surveys in the Country have pointed to higher prevalence rates of depression in women especially in the rural settings.

About 25% reported positive to the “THOUGHTS OF ENDING ONE’S LIFE”. i.e., suicidal ideations on SRQ, which is a point of health concern. Among all the participants only 10% were detected to have any psychiatric disorder given the mental health care services. This has implication on treatment delay and worsening of clinical condition.



Risk Perception, COVID-19

The research team assessed the perception of risk associated with the COVID-19 pandemic given the repeated waves of virus transmission. A Likert scale was used which assessed responses against four categories (Not at all, sometimes, rarely, often very much). Following questions were asked:

- **I have no means of control over the COVID-19 pandemic**

- I will infect myself with COVID
- Please indicate how likely you think it is that you will be infected with COVID-19
- People close to me are infected with COVID-19.
- I will infect other people with COVID-19
- The consequences of the COVID-19 pandemic will greatly affect me personally
- In case of infection with COVID-19 the consequences for my health will be severe
- People close to me will die of COVID-19

When assessed on perceived risk of COVID-19, around 87% participants reported that it posed low risk. This perception was more prevalent in rural (91%) than urban setting. The general findings suggest poor understanding of risks associated with transmission and infection with COVID-19. The findings make the case for public health education interventions at population level through print and electronic media.

Table 2 : Risk perception	Male		Female			
	Frequency	Percentage	Frequency	Percentage		
I have no means of control over the COVID-19 pandemic						
Not at all (0)	517	25.93	302	41.94	215	27.78
Sometimes (1)	557	27.93	195	27.08	362	46.77
Rarely (2)	217	10.88	111	15.42	106	13.70
Often (3)	83	4.16	50	6.94	33	4.26
Very much (4)	120	6.02	62	8.61	58	7.49
I will infect myself with COVID						
Not at all (0)	549	27.53	331	45.97	218	28.17
Sometimes (1)	543	27.23	203	28.19	340	43.93

Rarely (2)	239	11.99	112	15.56	127	16.41
Often (3)	84	4.21	47	6.53	37	4.78
Very much (4)	79	3.96	27	3.75	52	6.72
Please indicate how likely you think it is that you will be infected with COVID-19						
Not at all (0)	464	23.27	273	37.92	191	24.68
Sometimes (1)	557	27.93	221	30.69	336	43.41
Rarely (2)	307	15.40	147	20.42	160	20.67
Often (3)	79	3.96	42	5.83	37	4.78
Very much (4)	87	4.36	37	5.14	50	6.46
People close to me are infected with COVID-19.						
Not at all (0)	613	30.74	310	43.06	303	39.15
Sometimes (1)	448	22.47	191	26.53	257	33.20
Rarely (2)	253	12.69	122	16.94	131	16.93
Often (3)	95	4.76	52	7.22	43	5.56
Very much (4)	85	4.26	45	6.25	40	5.17
I will infect other people with COVID-19						
Not at all (0)	654	32.80	359	49.86	295	38.11
Sometimes (1)	448	22.47	178	24.72	270	34.88
Rarely (2)	227	11.38	106	14.72	121	15.63
Often (3)	76	3.81	39	5.42	37	4.78
Very much (4)	89	4.46	38	5.28	51	6.59
The consequences of the COVID-19						

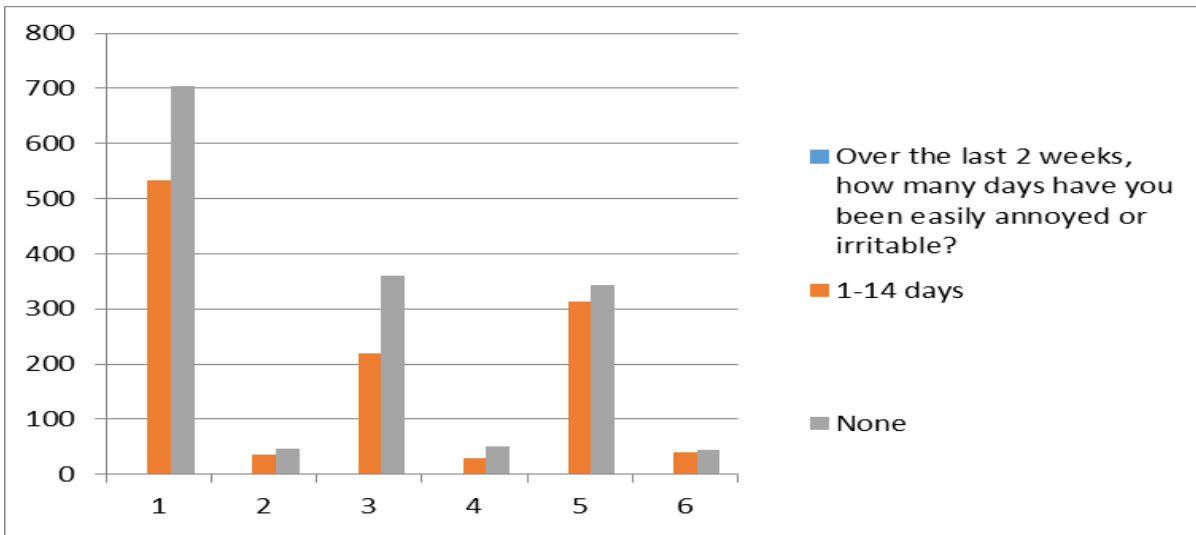
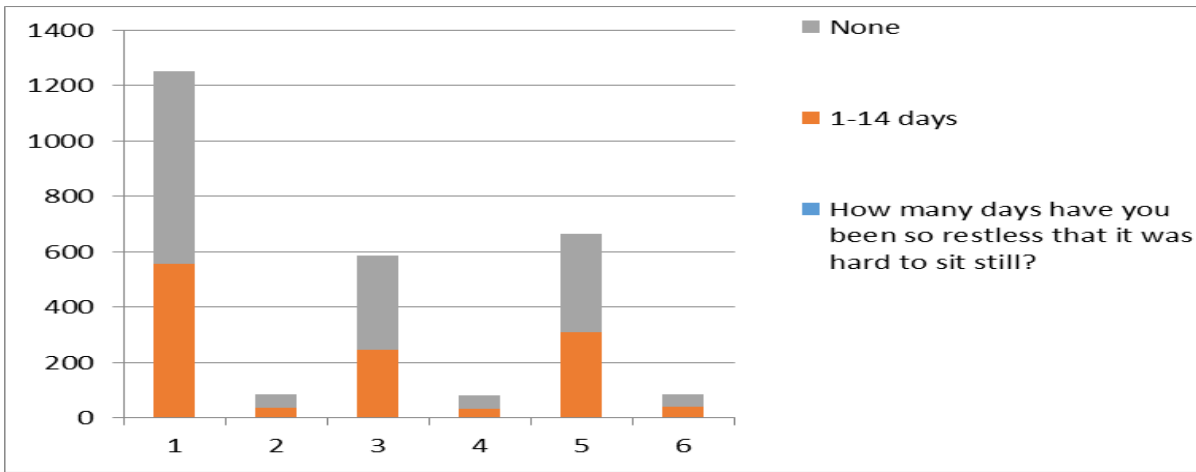
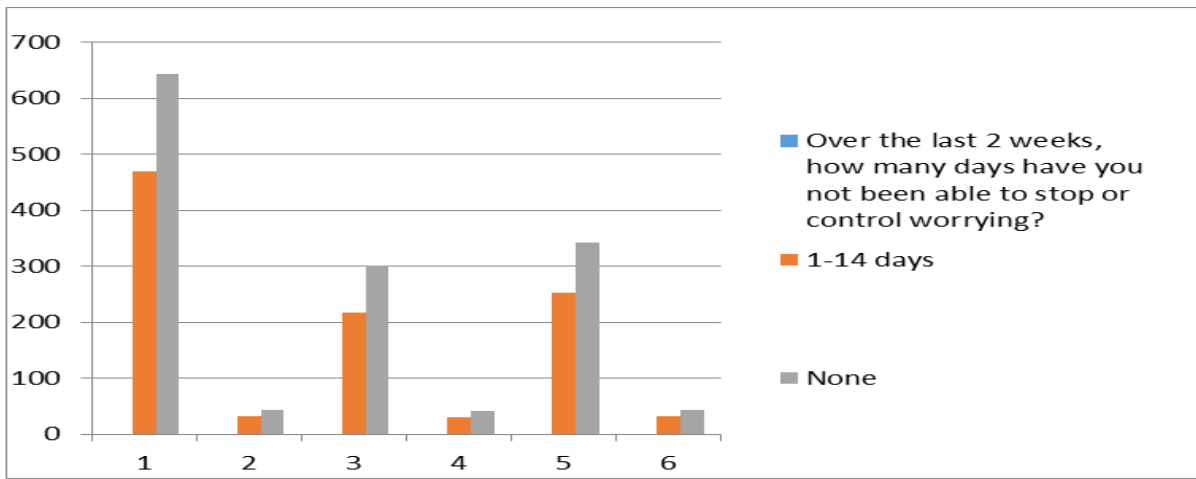
pandemic will greatly affect me personally						
Not at all (0)	499	25.03	281	39.03	218	28.17
Sometimes (1)	462	23.17	177	24.58	285	36.82
Rarely (2)	268	13.44	132	18.33	136	17.57
Often (3)	125	6.27	62	8.61	63	8.14
Very much (4)	140	7.02	68	9.44	72	9.30
In case of infection with COVID-19 the consequences for my health will be severe						
Not at all (0)	452	22.67	259	35.97	193	24.94
Sometimes (1)	480	24.07	187	25.97	293	37.86
Rarely (2)	302	15.15	144	20.00	158	20.41
Often (3)	115	5.77	59	8.19	56	7.24
Very much (4)	145	7.27	71	9.86	74	9.56
I will die of COVID-19						
Not at all (0)	761	38.16	416	57.78	345	44.57
Sometimes (1)	340	17.05	133	18.47	207	26.74
Rarely (2)	222	11.13	97	13.47	125	16.15
Often (3)	87	4.36	40	5.56	47	6.07
Very much (4)	84	4.21	34	4.72	50	6.46
People close to me will die of COVID-19						
Not at all (0)	655	32.85	366	50.83	289	37.34
Sometimes (1)	363	18.20	151	20.97	212	27.39
Rarely (2)	253	12.69	110	15.28	143	18.48
Often (3)	115	5.77	49	6.81	66	8.53
Very much (4)	108	5.42	44	6.11	64	8.27

Self-Reported Anxiety

The symptoms of Anxiety were assessed as self-report items. Three questions were asked and answer was given on a Likert scale. The overall prevalence of anxiety was 85%. It was higher in urban setting (n=88%) compared to rural (83%). See following table for details & figures for display of data.

S.No	Questions	Overall frequency	Males	Females
1	How many days have you been so restless that it was hard to sit still?	37.15 (n=555)	34.17% (n=246)	40% (n=309)
2	Over the last 2 weeks, how many days have you been easily annoyed or irritable?	35.68 (n=533)	30.42 (n=219)	40.57 (n=314)
3.	Over the last 2 weeks, how many days have you not been able to stop or control worrying?	31.46 (n=470)	30.14 (n=217)	32.69 (n=253)

Table 3: Symptoms of Anxiety



Financial Stress & Borrowing

When inquired about the financial constraints and borrowing of money during the COVID-19 pandemic, about 36% reported borrowing money from others to make ends meet. About 21% reported selling possessions, livestock or property, to make payments when due. About 33% reported difficulties, like being evicted due to not able to pay the rent. In 18% cases spouse or family member started working outside the home to support the household income (see thematic details in transcripts from Focus Group Discussions). The response in three categories is depicted in pie chart below.

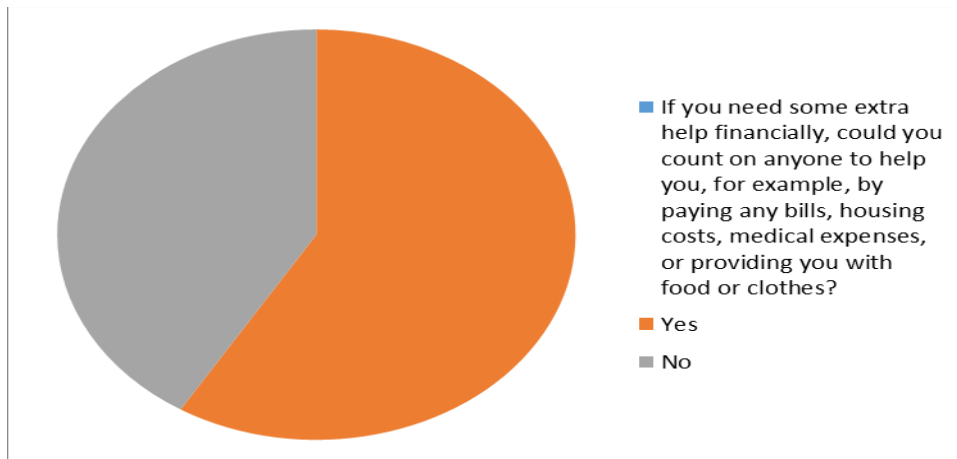


Fig. A. Financial Constraints

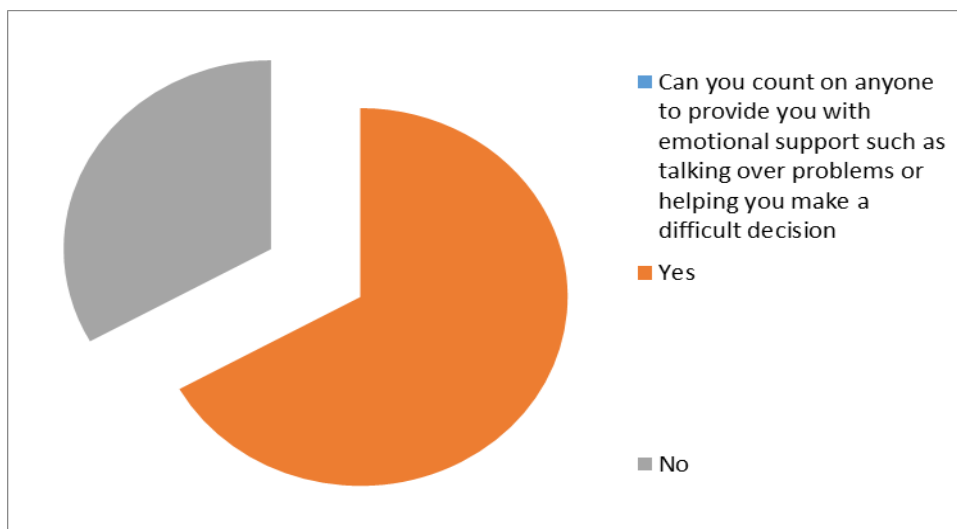


Fig. B. Financial Constraints

Social Support:

Pakistan is an agriculture society with people living in extended family network and community support. Informal support is given by family and friends in times of stress. We wanted to explore the details of this process through direct inquiry. Around 60% reported that they can count of anyone to provide emotional support by listening, either directly or through telephone, which they found meaningful. The extent of this support was assessed over the course of twelve months.

Table : Social Support Scale		
	Frequency	Percentage
Can you count on anyone to provide you with emotional support such as talking over problems or helping you make a difficult decision		
Yes	897	60.04
No	444	29.72
I don't need help	69	4.62
Don't know	75	5.02
Refused	9	0.60
In the last 12 months, could you have used more emotional support than you received?		
Yes	631	42.24
No	623	41.70
I don't need help	99	6.63
Don't know	118	7.90
Refused	23	1.54
Is there someone you could count on to help you if you were sick, for example, to take you to the doctor or help you with daily chores?		

Yes	874	58.50
No	426	28.51
I don't need help	85	5.69
Don't know	88	5.89
Refused	21	1.41
If you need some extra help financially, could you count on anyone to help you, for example, by paying any bills, housing costs, medical expenses, or providing you with food or clothes?		
Yes	730	48.86
No	512	34.27
I don't need help	126	8.43
Don't know	101	6.76
Refused	25	1.67

Post-Traumatic Disorder

In the final section of survey we employed Impact of Event Scale. The Impact of Event Scale-revised (IES) is one of the most widely used measures of posttraumatic stress reactions. The IES assesses the frequency with which respondents experience intrusive thoughts and avoidant behaviors over the past week. Score between 24 -32 are considered some symptoms, while 33-36 are considered probable diagnosis and anyone scoring above >37 is considered to be case positive for PTSD. In our sample 18% individual were found to have definite post-traumatic stress disorder (PTSD) while 4.35 had probable diagnosis; some symptoms were present 60% individuals. The percentage of case positive was slightly higher in rural then urban setting (21% vs. 15%)

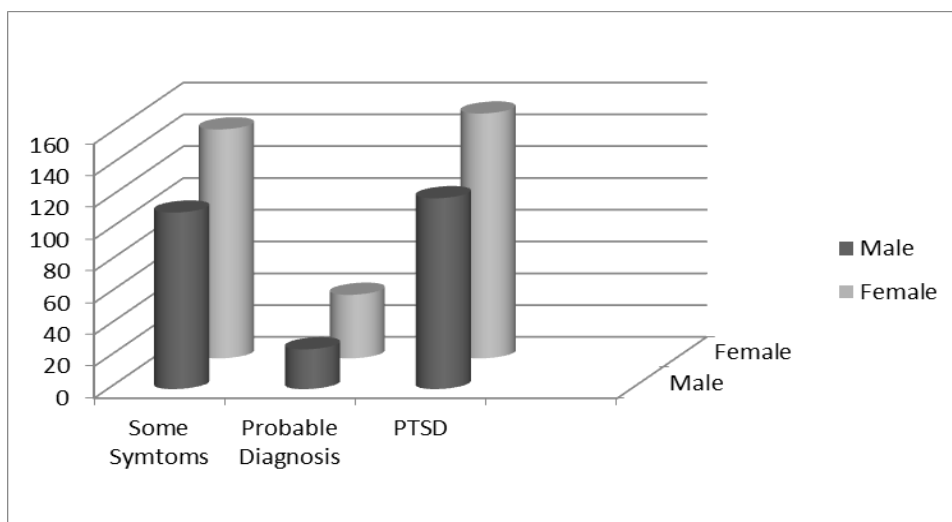


Fig. PTSD

Resilience

The discipline of psychology, with its mired applications, focus on positive aspect of life. Humanistic school of thoughts attempts to bring out, study, those aspect of human psyche which helps in adjustment in times of stress. Resilience has been described as one such attribute. In our survey we explored the level of reliance using structured questionnaire in which participants were asked to rate responses on Likert scale.

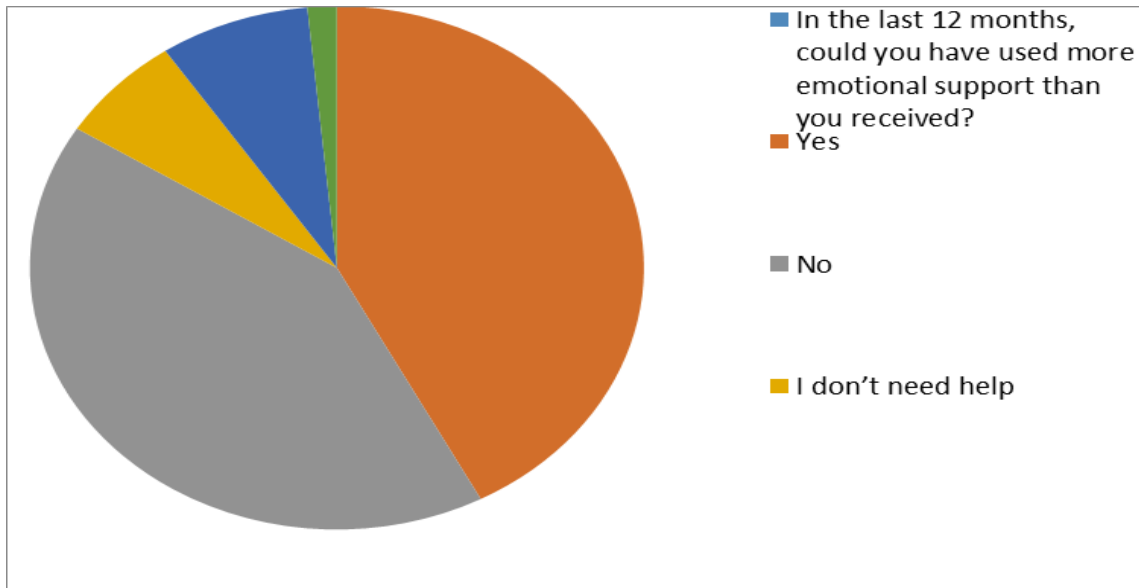
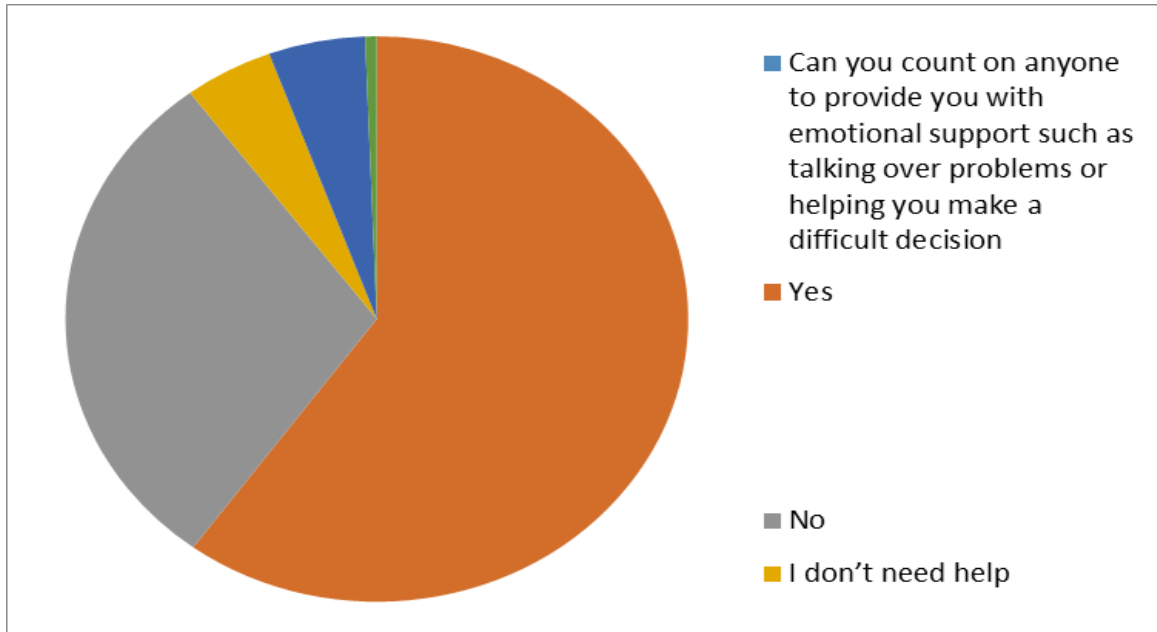
Following seven categories of responses were used to assess the resilience:

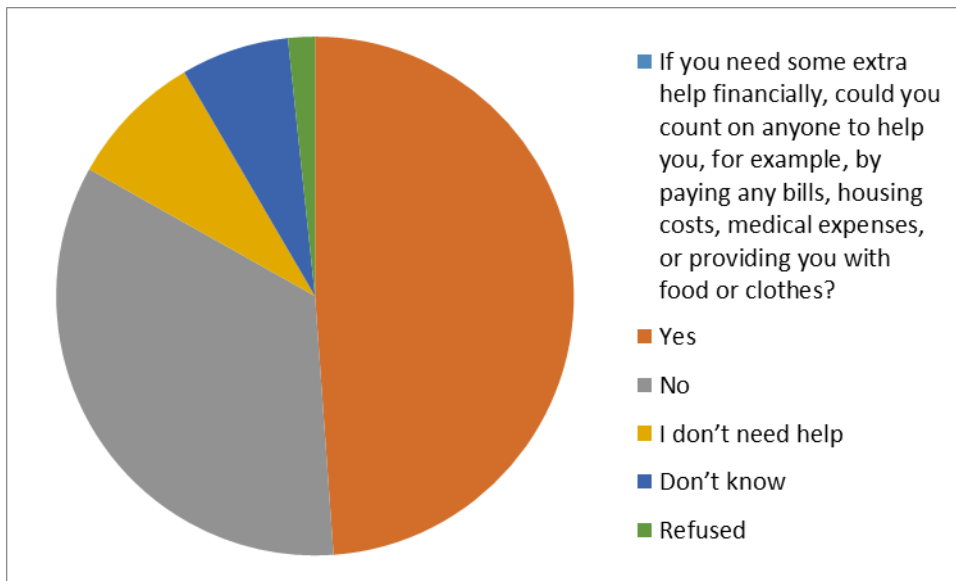
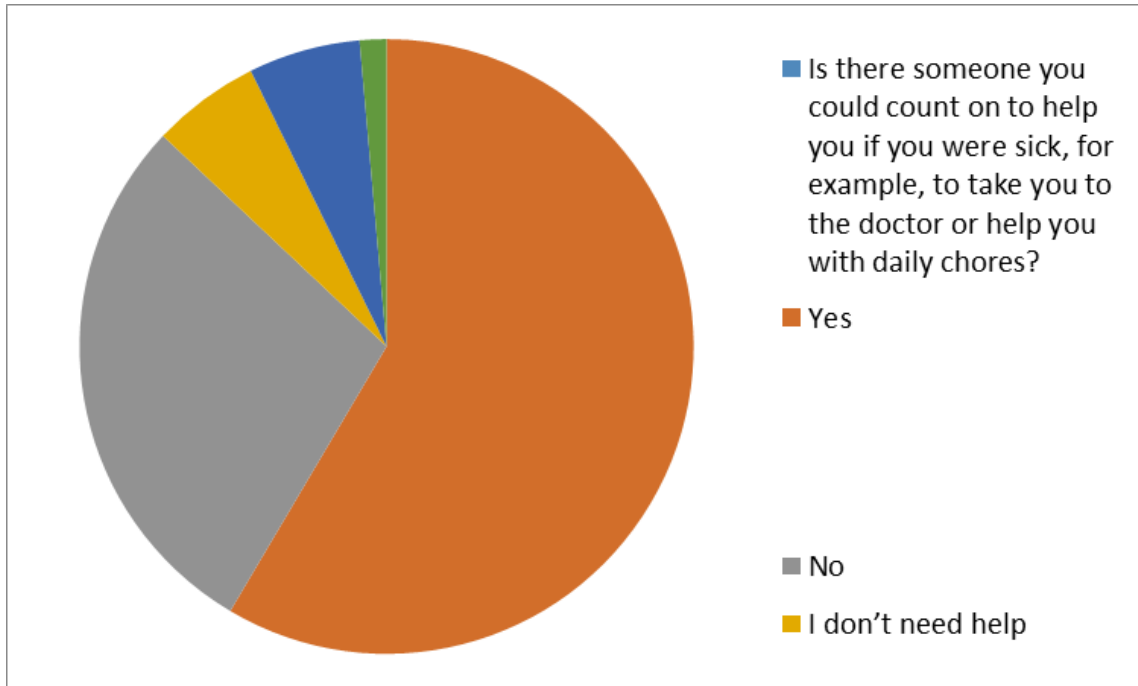
True, nearly all the time
Often true
Sometimes true
Rarely true
Not true at all
Don't know refused
Refused

The questions related to resilience were:

- I am able to adapt when changes occur
- I have at least one close and secure relationship that helps me when I am stressed.
- Even when things look hopeless, I don't give up.
- Under pressure, I stay focused and think clearly.

Around 32% individuals reported that they are able to respond when change occurs, in the category of true, nearly all the time. This was particular to the global situation arising after COVID-19 Pandemic. There was no significant gender difference in this category. About 32% reported that this was often true. In terms of having one close relationship to confide in times of stress, 40% individuals reported it to be true, nearly all the time. Such support was more pronounced in rural (40%) then urban setting (33%); this was reported to be often true in 26% circumstances. When asked about ultimate measure of resilience, 'even when things look hopeless, I don't give up' 31% reported true, nearly all the time, while 28% reported often true, respectively. When asked about performance under pressure roughly around 30% reported that they do.





Conclusion:

The Sindh Mental Health Survey is the first of its kind which assesses the psychological, social and economic impact of COVID-19. Different stakeholders came together to conduct this survey under the umbrella of Sindh Mental Health Authority led by Dr Karim A. Khawaja. The data was collected from a representative sample of rural and urban Sindh; eight focus group discussions were conducted with diverse individual. Total of 1494 individuals were interviewed from the province. Among them 757 were from rural setting, while 737 were from urban areas. About 48% were males while 52% females. The average household members were 7 (\pm 3.6). The average house hold income was Pak. Rs 28,000/-. About 20% individuals reported to be effected by COVID-19. The reported mortality was around 3.8% with vaccination rate of 33% in the overall sample. Almost 62% reported major loss of income or earning which was more pronounced in rural (81%) then urban (43%) setting. When asked directly, 24% individuals reported receiving funds through EHSAS Program/Government agencies. The estimated prevalence of depression as assessed on self-reporting questionnaire (SRQ-21) was 42%. Among the participants 10% reported to have received any psychiatric diagnosis. The overall prevalence of self-reported anxiety was 85%. When assessed on perceived risk of COVID-19 around 87% participants reported that it posed low risk. This perception was more prevalent in rural (91%) then urban setting. The general findings suggest poor understanding of risks associated with transmission and infection with COVID-19. Around 69% participants reported adequate social support through family, friends and informal support networks. When inquired about the financial constraints, 36% reported borrowing money while 21% reported selling property, possessions or livestock to make ends meet. Around 32% individuals reported that they are able to respond resiliently when change occurs; in terms of having one close relationship to confide in times of stress, 40% individuals reported it to be true, nearly all the time. The findings of this survey are expected to help design strategies from relevant Government agencies, NGOs', INGOs' & concerned stakeholders.

Annexure 1, Tables.

Table 1: Socio-demographic characteristics of study participants			Rural		Urban	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
Age of Participant						
(Mean ± SD)	1494	(38.86 ± 11.66)	757	(38.03 ± 10.91)	737	(39.72 ± 12.34)
Gender of Participant						
Male	720	48.19	185	24.44	535	72.59
Female	774	51.81	572	75.56	202	27.41
Total	1494		757	50.67	737	49.33
Household income						
(Mean ± SD)	1494	(56947.52 ± 112833.59)	757	(15596.96 ± 13874.53)	737	(71969.17±148536.3)
Median		28,000		12,000		60,000
Number of household						

d members						
(Mean \pm SD)	1494	(7.20 \pm 3.68)	757	(7.71 \pm 3.65)	737	(6.68 \pm 3.65)
Number of earning members						
(Mean \pm SD)	1494	(1.67 \pm 1.12)	757	(1.45 \pm 1.01)	737	(1.90 \pm 1.18)
Living arrangement						
Nuclear	846	56.63	439	57.99	407	55.22
Joint	583	39.02	278	36.72	305	41.38
Extended	64	4.28	40	5.28	24	3.26
Other	1	0.07	0	0.00	1	0.14
Education						
Illiterate	566	37.88	503	66.45	63	8.55
Primary	167	11.18	121	15.98	46	6.24
Secondary	119	7.97	47	6.21	72	9.77
Intermediate	189	12.65	45	5.94	144	19.54
Graduate	333	22.29	31	4.10	302	40.98
Postgraduate	107	7.16	3	0.40	104	14.11

Madrasa	9	0.60	7	0.92	2	0.27
Other	4	0.27	0	0.00	4	0.54
Marital status						
Single	234	15.66	80	10.57	154	20.90
Married	1175	78.65	620	81.90	555	75.31
Divorced	20	1.34	7	0.92	13	1.76
Widow	62	4.15	48	6.34	14	1.90
Separated	3	0.20	2	0.26	1	0.14
Occupation						
Student	56	3.75	2	0.26	54	7.33
Housewife	441	29.52	392	51.78	49	6.65
Businessman	123	8.23	1	0.13	122	16.55
Professional	243	16.27	18	2.38	225	30.53
Land Owner/Grower	20	1.34	12	1.59	8	1.09
Retired	26	1.74	5	0.66	21	2.85
Skilled labor	177	11.85	106	14.00	71	9.63
Unskilled labor	184	12.32	152	20.08	32	4.34

Unemployed	60	4.02	34	4.49	26	3.53
Other	164	10.98	35	4.62	129	17.50
Religion						
Muslim	1399	93.64	705	93.13	694	94.17
Hindu	83	5.56	48	6.34	35	4.75
Christian	11	0.74	4	0.53	7	0.95
Other	1	0.07	0	0.00	1	0.14

Table 2: Change in food consumption due to COVID19			Rural		Urban	
	Frequen cy	Percenta ge	Frequen cy	Percenta ge	Frequen cy	Percenta ge
Have you experienced any change in your food due to Covid19?						
Yes	570	38.15	383	50.59	187	25.37
No	924	61.85	374	49.41	550	74.63
Have you reduced the consumption of following foods?						
Cereal	348	23.29	288	38.04	60	8.14
Pulses	319	21.35	265	35.01	54	7.33
Chicken	495	33.13	356	47.03	139	18.86
Meat	513	34.34	359	47.42	154	20.90
Fish	503	33.67	353	46.63	150	20.35
Dairy products (Milk, Yogurt)	376	25.17	283	37.38	93	12.62
Fruits	482	32.26	355	46.90	127	17.23

Table 3: Socio-economic effects of COVID 19			Rural		Urban	
	Freque ncy	Percent age	Freque ncy	Percentag e	Freque ncy	Percentage
Lock down/Travel Restriction Led to loss of						
1. Wage/Money	199	13.32	69	9.11	130	17.64
2. Live Stock/business	199	13.32	103	13.61	96	13.03
3. Education	104	6.96	12	1.59	92	12.48
4. Physical Health	22	1.47	2	0.26	20	2.71
5. Mental Health (SRQ)	75	5.02	19	2.51	56	7.60
6. HH having multiple effects due to Lock down	895	59.91	552	72.92	343	46.54
Livelihood affected to COVID19:						
Major loss of income & earning	936	62.65	619	81.77	317	43.01
Some reduction of income & earning	558	37.35	138	18.23	420	56.99
Received Funds from						

EHSAS/ Gov. Agency						
No	1139	76.24	469	61.96	670	90.91
Yes	355	23.76	288	38.04	67	9.09
Amount received						
(Mean \pm SD)	355	(12037.46 \pm 2851.03)	288	(11914.24 \pm 2744.54)	67	(12567.16 \pm 3239.08)
Food security						
Family does not have enough money for food	1079	72.22	414	54.69	665	90.23

Table 4: Self Reporting Questionnaire Scores

	Frequen cy	Percenta ge	Frequen cy	Percenta ge	Frequen cy	Percenta ge
Do you often have headaches?						
Yes	823	55.09	311	20.82	512	34.27
No	671	44.91	409	27.38	262	17.54
Is your appetite poor?						
Yes	571	38.22	203.00	13.59	368.00	24.63
No	923	61.78	517.00	34.61	406.00	27.18
Do you sleep badly?						
Yes	707	47.32	284.00	19.01	423.00	28.31
No	787	52.68	436.00	29.18	351.00	23.49
Are you easily frightened?						
Yes	542	36.28	194.00	12.99	348.00	23.29
No	952	63.72	526.00	35.21	426.00	28.51
Do your hands shake?						
Yes	468	31.33	177.00	11.85	291.00	19.48
No	1026	68.67	543.00	36.35	483.00	32.33
Do you feel nervous, tense or worried?						
Yes	764	51.14	310.00	20.75	454.00	30.39
No	730	48.86	410.00	27.44	320.00	21.42
Is your digestion poor?						
Yes	675	45.18	255.00	17.07	420.00	28.11

No	819	54.82	465.00	31.12	354.00	23.69
Do you have trouble thinking clearly?						
Yes	604	40.43	225.00	15.06	379.00	25.37
No	890	59.57	495.00	33.13	395.00	26.44
Do you feel unhappy?						
Yes	601	40.23	250.00	16.73	351.00	23.49
No	893	59.77	470.00	31.46	423.00	28.31
Do you cry more than usual?						
Yes	448	29.99	140.00	9.37	308.00	20.62
No	1046	70.01	580.00	38.82	466.00	31.19
Do you find it difficult to enjoy your daily activities?						
Yes	644	43.11	277.00	18.54	367.00	24.56
No	850	56.89	443.00	29.65	407.00	27.24
Do you find it difficult to make decisions?						
Yes	631	42.24	244.00	16.33	387.00	25.90
No	863	57.76	476.00	31.86	387.00	25.90
Is your daily work suffering?						
Yes	740	49.53	352.00	23.56	388.00	25.97
No	754	50.47	368.00	24.63	386.00	25.84
Are you unable to play a						

useful part in life?						
Yes	542	36.28	221.00	14.79	321.00	21.49
No	952	63.72	499.00	33.40	453.00	30.32
Have you lost interest in things?						
Yes	592	39.63	254.00	17.00	338.00	22.62
No	902	60.37	466.00	31.19	436.00	29.18
Do you feel that you are a worthless person?						
Yes	467	31.26	157.00	10.51	310.00	20.75
No	1027	68.74	563.00	37.68	464.00	31.06
Has the thought of ending your life been on your mind?						
Yes	384	25.70	123.00	8.23	261.00	17.47
No	1110	74.30	597.00	39.96	513.00	34.34
Do you feel tired all the time?						
Yes	738	49.40	269.00	18.01	469.00	31.39
No	756	50.60	451.00	30.19	305.00	20.41
Do you have uncomfortable feelings in your stomach?						
Yes	601	40.23	230.00	15.39	371.00	24.83
No	893	59.77	490.00	32.80	403.00	26.97
Are you easily tired?						

Yes	774	51.81	277.00	18.54	497.00	33.27
No	720	48.19	443.00	29.65	277.00	18.54

Table 5: Socioeconomic Variables						
(Mean ± SD) Rooms	1494	(2.08 ± 1.02)	757	(1.44 ± 0.66)	737	(2.74 ± 0.90)
Inside Toilet	722	48.33	344	45.443	378	51.29
Outside Toilet	450	30.12	379	50.066	71	9.63
Closed Drains	48	3.21	28	3.699	20	2.71
Hot Water System	48	3.21	0	0.000	48	6.51
HH having all facilities	227	15.19	6	0.79	220	29.85
Appliances						
1= 1-3 different appliances (آلات مختلف 1-3)	452	30.25	280	36.988	172	23.34
2= 4-6 different appliances (آلات مختلف 4-6)	318	21.29	38	5.020	280	37.99
3= 7 or more different appliances (زیادہ سے یا اس 7 سے زیادہ مختلف آلات)	262	17.54	6	0.793	256	34.74
None 2= 4-6 different appliances (آلات مختلف 4-6, نہیں کوئی)	457	30.59	428	56.539	29	3.93
Vehicles owned by the household						
None	638	42.70	511	67.503	127	17.23
Pedal bicycle	67	4.48	46	6.077	23	3.12

Motor bicycle or scoter	515	34.47	169	22.325	346	46.95
Car	147	9.84	2	0.264	145	19.67
Tractor	1	0.07	1	0.132	0	0.00
Truck	1	0.07	0	0.000	1	0.14
Van	1	0.07	1	0.132	0	0.00
HH having more than one vehicle	124	8.30	28	3.699	96	13.03
Type of education given to children						
None	422	28.25	298	39.366	124	16.82
Government, Urdu-medium	580	38.82	424	56.011	156	21.17
Private, Urdu-medium	102	6.83	22	2.906	80	10.85
Private English-medium	390	26.10	13	1.72	377	51.15
Madarsa	0	0.00	0	0.000	0	0.00
Land ownership						
None	1056	70.68	572	75.561	484	65.67
Less than 1 acre	304	20.35	141	18.626	163	22.12
between 1 and 10 acres	106	7.10	42	5.548	64	8.68
More than 10 acres	28	1.87	2	0.264	26	3.53
Education of head of household						
None	573	38.35	486	64.201	87	11.80
1= 1-5 years	155	10.37	96	12.682	59	8.01
2=6-9 years	125	8.37	42	5.548	83	11.26
3= 10 years or more	641	42.90	133	17.569	508	68.93

Type of household income						
1. Monthly income	702	46.99	223	29.458	479	64.99
2. Daily wages	593	39.69	481	63.540	112	15.20
3. Own business	135	9.04	3	0.396	132	17.91
4. Others	64	4.28	50	6.605	14	1.90
Animals						
No	1065	71.29	494	65.258	571	77.48
Yes	429	28.71	263	34.742	166	22.52
Household Status						
1. Own House	999	66.87	599	79.128	400	54.27
2. Family House	281	18.81	134	17.701	147	19.95
3. Rented	193	12.92	16	2.114	177	24.02
4. Other	21	1.41	8	1.057	13	1.76
Kitchen						
1. Gas Supply	648	43.37	41	5.416	607	82.36
2. Gas cylinder	56	3.75	4	0.528	52	7.06
3. Fire-wood/Mud stove	790	52.88	712	94.055	78	10.58

Table 6: Financial stress			Male		Female	
	Frequen cy	Percenta ge	Frequen cy	Percenta ge	Frequen cy	Percenta ge
Been evicted due to not paying rent?						
Yes	500	33.47	196	27.22	304	39.28
No	882	59.04	468	65.00	414	53.49
Don't know	66	4.42	35	4.86	31	4.01
Refused	46	3.08	21	2.92	25	3.23
Borrowed money from friends or family to help pay bills?						
Yes	538	36.01	216	30.00	322	41.60
No, I asked but was turned down	179	11.98	66	9.17	113	14.60
No, I didn't ask	616	41.23	351	48.75	265	34.24

Don't know	104	6.96	54	7.50	50	6.46
Refused	57	3.82	34	4.72	24	3.10
Sold possessions or property to raise money?						
Yes	310	20.75	128	17.78	182	23.51
No	1070	71.62	530	73.61	540	69.77
Don't know	78	5.22	43	5.97	35	4.52
Refused	36	2.41	19	2.64	17	2.20
Spouse or partner began to work outside of the home?						
Yes	270	18.07	89	12.36	181	23.39
No	1074	71.89	553	76.81	521	67.31
Don't know	87	5.82	47	6.53	40	5.17
Refused	63	4.22	31	4.31	32	4.13

Table 7: Life Event Scale (PTSD)			Male		Female		Rural		Urban	
	Freq uenc y	Perc enta ge	Freq uenc y	Perc enta ge	Freq uenc y	Perc enta ge	Freq uenc y	Perc enta ge	Freq uenc y	Perc enta ge
Scores less than 24 (no symptoms of PTSD)	900	60.24	464	31.058	436	29.18	403	53.24	497	67.44
Scores 24 to 32 (some symptoms of PTSD)	255	17.07	111	7.430	144	9.64	147	19.42	108	14.65
Scores 33 to 36 (Probable diagnosis of PTSD)	65	4.35	25	1.673	40	2.68	43	5.68	22	2.99
Scores more than 37 (PTSD)	274	18.34	120	8.032	154	10.31	164	21.66	110	14.93

Table 8: Resilience/Strength			Male		Female	
	Frequen cy	Percenta ge	Frequen cy	Percenta ge	Frequen cy	Percenta ge
I am able to adapt when changes occur						
True, nearly all the time	479	32.06	238	33.06	241	31.14
Often true	484	32.40	211	29.31	273	35.27
Sometimes true	326	21.82	156	21.67	169	21.83
Rarely true	52	3.48	33	4.58	19	2.45
Not true at all	58	3.88	38	5.28	20	2.58
Don't know refused	90	6.02	41	5.69	49	6.33
Refused	5	0.33	2	0.28	3	0.39
I have at least one close and secure relationship that helps me when I am stressed.						
True, nearly all the time	598	40.03	336	46.67	262	33.85
Often true	397	26.57	153	21.25	244	31.52
Sometimes true	288	19.28	113	15.69	175	22.61
Rarely true	45	3.01	25	3.47	20	2.58
Not true at all	81	5.42	47	6.53	34	4.39
Don't know refused	75	5.02	41	5.69	34	4.39
Refused	10	0.67	5	0.69	5	0.65

Even when things look hopeless, I don't give up.						
True, nearly all the time	472	31.59	260	36.11	212	27.39
Often true	414	27.71	175	24.31	239	30.88
Sometimes true	344	23.03	149	20.69	195	25.19
Rarely true	71	4.75	39	5.42	32	4.13
Not true at all	90	6.02	54	7.50	36	4.65
Don't know refused	89	5.96	39	5.42	50	6.46
Refused	14	0.94	4	0.56	10	1.29
Under pressure, I stay focused and think clearly.						
True, nearly all the time	414	27.71	218	30.28	196	25.32
Often true	373	24.97	160	22.22	213	27.52
Sometimes true	325	21.75	140	19.44	185	23.90
Rarely true	127	8.50	79	10.97	48	6.20
Not true at all	136	9.10	70	9.72	66	8.53
Don't know refused	102	6.83	46	6.39	56	7.24
Refused	17	1.14	7	0.97	10	1.29

Annexure II

FGD THEMES

Psychosocial Impact on Mental Health during COVID 19

UNEMPLOYMENT: Unemployment was one of the biggest problems for population of both Urban and rural areas, Unemployed individuals were not only hard on cash but also faced challenges related to their physical and mental health. They were unable to provide basic needs to their families like food medical facilities keeping aside the luxuries of quality life .This was pilling up anger and frustrations leading to conflicts inside and outside homes

LOANS: Unemployed individuals experienced reduced income as a direct result of not having a job. Because of being jobless they were unable to maintain their previous lifestyle and had to borrow money from banks or people who were having sufficient amounts individuals from both urban and rural had taken huge loans due to lock down .Even people who were doing small business were compelled to borrow money due to their circumstances. According to some of the participants loan had further stressed them out.

FINANCIAL STRESS: Financial stress was most commonly reported variable by both Urban and Rural population It also had a significant impact on a person's physical health. Being financially constrained is a highly stressful situation. Most of the participants reported they had stress-related health issues such as headaches, high blood pressure, diabetes, heart disease, back pain and insomnia. These health issues were resulting in increased visits to a doctor and increased use of medication to manage the health conditions ,which was becoming too overwhelming for them and was also resulting in low tolerance level and aggression causing conflicts inside the house as well as outside on streets

MENTAL WELLBEING: The coronavirus pandemic had developed a considerable degree of fear, worry and concern in the urban and rural population at large and among certain groups in particular, such as older adults, care providers and people with underlying health conditions. It was reported by most of the participants that they got very scared of the virus and even a small sneeze or cold cough seemed to be COVID and out of fear they refused to go to the doctor .Frequent news on social media and national television was developing anxieties According to majority of the participants, the main psychological impact to date was elevated rates of stress and anxiety. But according to some who were especially in quarantine due to high levels of loneliness, depression, addiction and self-harm or suicidal behavior were also observed in some cases One of the participant from Sanghar district reported a case where a young man committed suicide because he could not see his children hungry

Work place relationship effected: The Coronavirus (COVID-19) crisis has caused great societal upheaval and an unprecedented change to the way we live, work and socialize. It was reported by some of the participants that people had stopped greeting the way they used to. Most of the people would confine themselves to their cabins. Helping behavior at workplace had reduced. Anyone with a family member with COVID or after coming back from quarantine was not welcome back. The work place stress had doubled their challenges.

CRIME RATE: Most of the participants both urban and rural reported increased crime rate including muggings, car and bike theft, house robberies, and water theft. In some rural areas like Sanghar tree cutting which is a crime also increased. This was partly due to police resources shifting away from routine police work, such as patrolling, towards enforcement of lockdowns. Increased socio-economic stresses resulting from the pandemic have also played a role in increasing the crime rate. The lockdown also increased crimes of profiteering, black-marketing, and hoarding of essential goods.

CYBERCRIME: During the pandemic the cybercrime increased as most of the Urban participants told that since schooling was online so they were not checking the activities of their children thinking they are doing homework or school assignments. The increase in the number of online buyers may have also led to increased cybercrimes in terms of financial frauds, harassment, sexual exploitation and blackmailing.

DOMESTIC VIOLENCE: Due to high rates of unemployment and financial stressors along with home confinement had built up a lot of stress leading to anger and frustration which was displaced upon women and children causing the rise in domestic violence. Some of the participants had also reported about elderly abuse.

ONLINE SCHOOLING CHALLENGE : It was a big Challenge for the Rural population as there was no availability of net and since each child had a class to attend so they required multiple cellphones and laptops which were not affordable for them in the state of lockdown and unemployment.

TRANSPORT ISSUES: The transport facilities were not available and whatever was available was too expensive and even intercity travelling became a challenge during pandemic. Lot of people working in factories were fired for not coming to work. Some of the participants reported to seek medical help was also a challenge during COVID .

LACK OF SOCIAL SUPPORT: During COVID most of the participants reported that the extended families and neighbors were least helpful they would not restrict their visits but also refused to attend their calls. Only the immediate family was available for help.

SUBSTANCE ABUSE: According to most of the participants both urban and rural their intake of pan and gutka increased during the lock down due to stress and tension and some reported that since they had nothing to do so they would stay home and either smoke or eat gutka to feel better and reduce stress .

POLICE VIOLENCE : Some of the participants reported that since lockdown was to be implemented by police there was daily wages workers and fruit vendors who were often locked up and even beaten up for not staying back home.



SINDH MENTAL HEALTH AUTHORITY



Website



<https://smha.sindh.gov.pk/>

Facebook link



<https://www.facebook.com/Sindh-Mental-Health-Authority-114624330315258>

Twitter Link



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