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MENTAL HEALTH ISSUES IN RURAL AND URBAN POPULATION IN GUJRANWALA PAKISTAN, A COMPARATIVE ANALYSIS

Qadeer Abbas[1], Aqna Malik[2*], Mudassar Mazher[3], Muhammad Abrar[4], Ehtsham Nazir[5], Adnan Ghazanfar[6], Muhammad Sharif Dar[7], Hafiz Salman Arif[8], Chand Abu Huraira Arshad[9]

[1]Department of pharmacy, University of Lahore
[2*]Department of Pharmacy, University of Chenab, Gujrat.
Department of Pharmacy, University of Lahore, Lahore.
[3]Department of Pharmacy, the University of Chenab, Gujrat, Pakistan.
[4]Department of pharmacy, University of Lahore
[5]Department of pharmacy, University of Lahore
[6]Department of pharmacy, University of Lahore
[7]Department of pharmacy, University of Lahore
[8]Department of pharmacy, University of Lahore
[9]Department of pharmacy, University of Lahore

***Corresponding Author:** Aqna Malik
*Department of Pharmacy, University of Chenab, Gujrat. Lahore.
Email: aqna@pharm.uchenab.edu.pk, Cell no:03335522120, ORCID no: 0000-0002-1365-3225
Scoup ID: http://www.scopus.com/inward/authorDetails.url?authorID=58399849600 &partnerID=MN8TOARS

Abstract

Background: Mental Health includes emotional, and social well-being and it centers, perception of a person, how an individual deals with the demands of life, and what he feels about problems of his life. WHO and CD defines mental health as "Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community "(Einstein, 2014). Mental health is not just that a person never diagnosed with any mental disorder. Most common form of mental health issue is SAD, social anxiety disorder well known as " Social Phobia" since, 1960s (Berman & Schneier, 2004). It is described as a protracted fear of receiving criticism from others and a propensity to avoid participation in social activities along with extreme fear of embarrassment, shame, or rejection (Leary, 2022). SAD can be extremely upsetting for learning, working, establishing personal connections and is more frequent during adolescence which can get better with advancement in age (Health, 2013). Approximately 13% of population experiencing social phobia, which might be both specific or generalized (Jefferson, 2001) worldwide. Prevalence of SAD 12% have been reported (Kessler et al., 2005) as compared to lifetime prevalence of GAD 6%, panic disorder 5%, post-traumatic stress disorder (PTSD) 7% and obsessive-compulsive disorder (OCD) 2%. According to National Comorbidity Survey, (SAD) is the 3rd most prevalent psychiatric ailment, following major depression (MD) and alcoholism (Blanco et al., 2011) and it is also greater than the cumulative prevalence of the (rheumatoid arthritis (RA), Crohn's disease, ulcerative colitis, systemic lupus erythematosus, diabetes mellitus type I Type 1 DM,

multiple sclerosis, uveitis, hypothyroid (Hoffmann et al., 2010).Differential diagnosis of SAD includes atypical depression, agoraphobia, panic disorder, and body dysmorphic disorder (Seligman & Seligman, 1996). SAD prevalence rates for children and adolescents are comparable to those for adults. Social anxiety disorder affects women more frequently than men (Beidel et al., 1999).
Risk factors of SAD include youth, children of low-income families, and citizens of the United States (Ornelas et al., 2009). Though it is mostly linked by hesitant nervous behavior in particular situations but is not a specific marker of SAD in young people (Marsh et al., 2008). Various personality traits and personal experiences may affect social comfort levels of a person during SAD (Smith & Lazarus, 1990).Emotional and behavioral changes like nervousness about any situations in which person might be negatively judged, might be worry about embarrassing or humiliating himself. Patient can have strong aversion to interacting with or having a conversation with strangers, fear that others will notice him to be anxious, and suspicious about outward manifestations of his situation like blushing, sweating, trembling, or having a shaky voice (Pfeifer et al., 2011). Similarly skipping activities like speaking to people out of fear of embarrassment, ignore activity or situation where patient might be center of attention. Critically judgement of patient himself about shortcomings after any social interactions and expect worst possible consequences from a bad experience during a social situation (Williams et al., 2015). Flushing, shaking, sweating, nausea, an upset stomach, trouble breathing, dizziness or lightheadedness, and the absence of mind are all physical signs of SAD (Beidel et al., 1991). With the passage of time, SAD symptoms may get worsen due to a lot of stress and expectations in patient's life. Anxiety is likely to long Laster if not get better at time after therapy (Rapee et al., 2022).
Social anxiety is more widespread than previously believed on a global scale, with 36% of respondents meeting the criterion for having (SAD). Depending on an individual's age, country of origin, occupational setting, degree of education, and where they lived—urban or rural—social anxiety symptoms varied in frequency and severity (Schneier et al., 2010).

Epidemiological research showed highest SAD ratio in USA 7% than Korea 0.6%, China 0.2%, Japan 0.8%. Women are more likely than males to suffer from SAD (Jack, 1991). SAD is commonly manifests at a young age of 20 in 80% of youngsters and might be at age of 11year in 50% (Dvir et al., 2014). It may be linked to more complicated mental disease and drug dependence later on in life (Schuckit, 2006). Neuro-imaging diagnostic studies pointed towards amygdala and insula with higher activity during SAD along with fundamental characteristics of personality trait neuroticism to uncover risk loci (Bas-Hoogendam et al., 2016).According to a British epidemiological survey (Ford & Hotopf, 2020), 0.32 % children and adolescents of 5 and 15 suffered from SAD, which might be more problematic than post-traumatic stress disorder (PTSD), obsessional compulsive disorder (OCD), and panic disorder while it was less common than separation anxiety disorder, specific phobia, and generalized anxiety disorder. Author found that males had a higher rate of SAD than females, with slight increase with age. Many other studies found same results in children aged 9-11 years (Costello et al., 2003), and 14-17 years (Wittchen et al., 1999). In another study, author focused on role of obesity in SAD patients stating that significantly greater seasonal alterations in appetite and weight patterns in patients with SAD than in normal individuals. It was suggested that SAD may offers an opportunity to recognize reversible obesity in humans (Rosenthal et al., 1987). In a survey conducted in different countries more than 1/3rd respondents met the criteria for (SAD), making it the most common anxiety disorder globally. However, according to authors, age, country, employment status, education level, and urban or rural setting can play a role in the prevalence and severity of social anxiety symptoms (Jefferies & Ungar, 2020).

Methods:

Study design and Setting:

The present study is descriptive cross-sectional study. It was designed at community level in division Gujranwala. The study was carried out during October 2022-January 2023 including both urban&rural regions of Gujranwala division. The study population comprised of 2,415,000

individuals over the land area of 17,207 km^2 covered by the studied region, making it ample space for conducting the research.

Sample Size Calculation:
To determine the appropriate sample size for this study, the Raosoft Sample Size Calculator was used with a confidence level of 95% and a margin of error of 5%. Based on a population size of 2,415,000, the calculated sample size was 385 participants.

Questionnaire based on:
The purpose of this study was to investigate the prevalence of SAD and its associated factors in a specific community. To obtain data for the investigation, a questionnaire with two sections was designed.
The I^{st} section of the questionnaire intended to collect sociodemographic information such as age, gender, education, occupation, marital status, BMI, residency and other relevant variables. This section's goals were to comprehend the sample population's demographics and to locate any potential confounding factors that may have an impact on the study's results.
The 2^{nd} section of the questionnaire included assessments of SAD based on different symptoms like to identify the prevalence of SAD, common symptoms related with disease such as dry mouth, insomnia, sweaty hand, feel down and hopeless etc.

Data Collection:
The data collection process involves obtaining responses from participants of diverse locations, including different hospitals such as THQ Wazirabad, DHQ Gujranwala, Ch. Pervaiz Elahi Institute of Cardiology, Wazirabad, The University of Chenab, Gujrat, Govt. Degree college for Women, Wazirabad, Gift University, Gujranwala etc. Questionnaire was distributed among willing participants to select appropriate option form given questions on it. Some among participants who were illiterate were interviewed regarding questions of survey.

Statistical Analysis:
The statistical analysis in research study utilized SPSS version 25 to calculate descriptive statistics for frequencies, and measures of variability. Independent and paired samples t-tests were used to determine significant differences between two groups, while one-way ANOVA was employed to examine differences between more than two groups. Post-hoc tests identified significant differences between groups. These statistical methods were appropriate for the research questions and objectives and were used to inform the study conclusions and recommendations.

Inclusion Criteria:
Participants must meet the following criteria to be eligible for participation in the study: (1) participants must be residents of the Gujranwala division, (2) participants must be aged 18 years or older, (3) participants must be able to understand and provide informed consent to participate in the study, and (4) participants must be willing and able to complete the self-structured questionnaire.

Exclusion Criteria:
The following individuals will be excluded from the study: (1) individuals with a diagnosed psychiatric disorder other than social anxiety disorder (e.g., schizophrenia, bipolar disorder) that may confound the results, (2) individuals currently undergoing treatment for SAD, as the treatment may influence their responses to the questionnaire, (3) individuals with severe cognitive impairments or language barriers may limit their ability to understand or complete the self-structured questionnaire, (4) individuals who are not physically present in Gujranwala during above study period , and (5) individuals who are under the age of 18 years.

Ethical Considerations:

Participants of study were informed of their rights to participate in survey that their personal information would be kept anonymous. It will be only used for the purpose of current study. Ethical approval for current study was obtained from the University Ethical Committee.

Results:

Among total 400 participants 170 (42.5%) were males while 230 (57.5%) were females, within. age group 18-29 (yrs.) (50.5%), 30-39(21%). A statistically insignificant connection was established between the residential characteristic and the percentage of respondents who lived in urban regions (63.2%) and rural areas (34.8%). All relevant information summarized in Table 4.1.

Table: 4.1. Demographic analysis of participant's data:

Parameter	Total	Urban	Rural	CI (95%)	P-value
Age					
18-29 (Young adult)	202	140(69.3%)	62(30.69%)	46.47 - 48.99	0.973
30-39 (Middle age adult)	84	50(59.5%)	34(40.47%)	47.79 – 51.43	
40-49 (Old age adult)	56	30(53.5%)	26(46.42%)	49.89 – 53.33	
50-59 (Senior adult)	37	23(62.1%)	14(37.83%)	47.21 – 53.17	
60^{+} (Elderly)	21	10(47.6%)	11(52.38%)	47.74 – 56.59	
Gender					
Male	170	105(61.7%)	65(38.2%)	2.0 – 2.1	0.997
Female	230	148(64.3%)	82(35.6%)	2.0 – 2.1	
BMI					
Under weight	72	42(58.3%)	30(41.6%)	1.98 – 2.12	0.047
Normal	164	104(63.4%)	60(36.5%)	2.00 – 2.08	
Over weight	72	46(63.8%)	26(36.1%)	1.97 – 2.13	
Obese I	42	28(66.6%)	14(33.3%)	1.99 – 2.15	
Obese II	22	15(68.1%)	7(31.8%)	2.10 – 2.52	
Obese III	28	18(64.2%)	10(35.7%)	1.98 – 2.22	
Occupation					
Freelancer	56	42(75.0%)	14(25%)	46.81 - 51.00	0.015
Social Worker	86	45(52.3%)	41(47.6%)	47.34 - 50.58	
Designer	67	40(59.7%)	27(40.2%)	50.26 - 54.69	
Doctor	72	53(73.6%)	19(26.3%)	46.29 - 50.56	
School Teacher	58	40(68.9%)	18(31.0%)	46.66 - 51.69	
House Wife	44	21(47.7%)	23(52.2%)	44.38 - 49.86	
Others	17	12(70.5%)	5(29.41%)	41.29 - 49.79	
Education					
Illiterate	31	16(51.6%)	15(48.3%)	1.96 – 2.09	0.548
Primary	42	21(50%)	21(50%)	1.99 – 2.05	
Middle	41	20(48.7%)	21(51.2%)	2.07 – 2.15	
Matric	44	28(63.6%)	16(36.3%)	1.96 – 2.13	
Intermediate	74	50(67.5%)	24(32.4%)	2.02 – 2.12	
Bachelors	134	92(68.6%)	42(31.3%)	2.02 – 2.12	
M. Phill	23	18(78.2%)	5(21.7%)	1.96 – 2.21	
Ph.D.	11	8(72.7%)	3(27.2%)	2.00	
Marital Status					
Single	209	141 (67.46%)	68 (32.53%)	47.21 – 49.70	0.018
Married	148	89 (60.13%)	59 (39.86%)	47.63 – 50.28	
Divorced	28	12 (42.85%)	16 (57.14%)	51.74 – 56.97	
Separated	10	6 (60%)	4 (40%)	45.38 – 54.02	
Widowed	5	5 (100%)	0 (0%)	32.26 – 71.56	

Prevalence of Social anxiety Disorders:

Based on the symptoms and diagnostic criteria of SAD, 16(6.3%) participants are prevalent for high risk, while 232(91.7%) are prevalent for moderate risk and 5(2%) are prevalent for low risk of social anxiety disorder. The t-test was conducted to compare the mean SAD scores and RISK between

individuals living in urban and rural areas. The results of the t-test show that there is no significant difference (p-value >0.05) in the mean SADSCORE between individuals living in urban (Mean ± S.D. = 66.28±12.22) and rural (Mean ± S.D.= 67.76 ±11.27) areas, with the p-value = 0.288. Similarly, no statistically significant (p-value > 0.05) was found in the mean RISK between individuals living in urban (Mean ± S.D. = 48.73±8.98) and rural (Mean ± S.D.= 49.82 ± 8.29) areas.

	Residence	N	Mean ± S.D.	df	t-value	P-value
SAD Score	Urban	253	66.28 ± 12.21	398	-1.2	0.231
	Rural	147	67.75 ± 11.27			
SAD Risk	Urban	253	48.73 ± 8.98	398	-1.2	0.231
	Rural	147	49.82 ± 8.29			

Symptoms of SAD:

According to Survey, unprovoked anxiety (73%) was found to be the highest among the participants, followed by the experience of mental exhaustion (72.2%) and physical fatigue (72%) without any work burden.

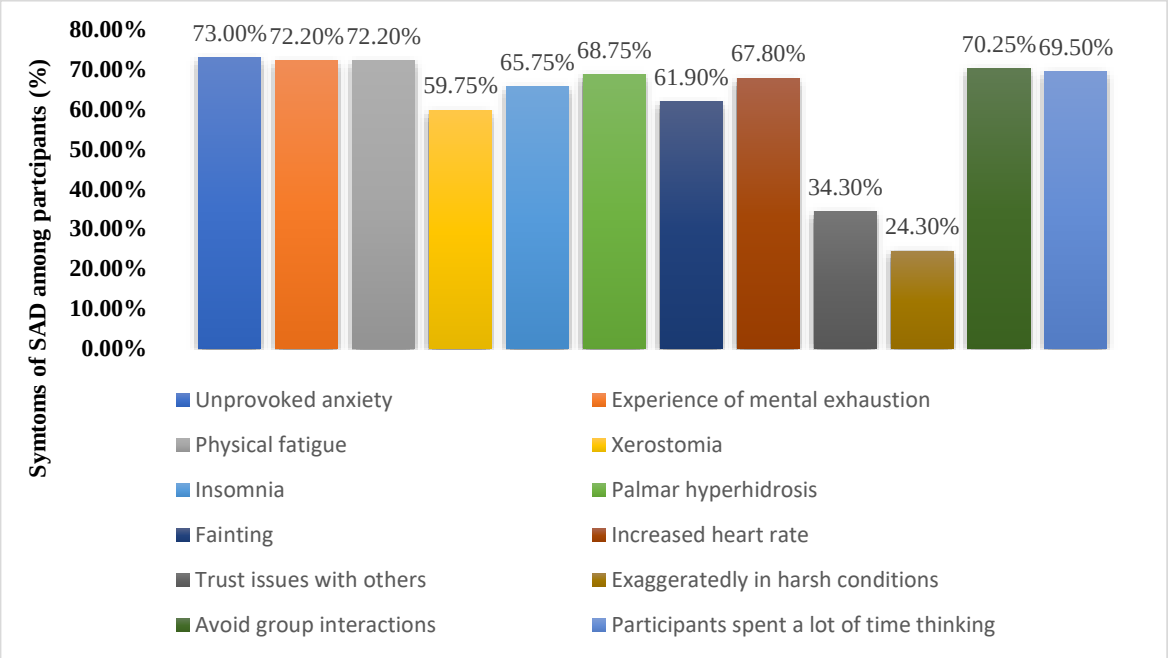

Figure 1.: Symptoms of SAD among partcipants (%)

Furthermore, xerostomia (59.75%), insomnia (69.5%), and palmar hyperhidrosis (68.75%) was reported by more than half of the participants while fainting was frequent in 61.9% of the studied participants. Increased heart rate was reported by 67.8% of participants. Moreover, Trust issues were experienced by 34.3% of the surveyed population. There are 97 (24.3%) of the subjects who mostly counteract exaggeratedly in harsh conditions, while 29 (7.2%) of the subjects always feel down and hopeless. There are 70.25% of surveyed participants avoid group interactions, 69.5% of the participants spent a lot of time thinking about how to act or say things in social situations, 41.25% of participants require assistance to handle social circumstances with spiritual mentors, while 57.25% of the respondents are unable to feel happiness or joy; an important marker for SAD. The data also revealed that 122 (30.5%) of the participants never experienced nervousness. Stress-induced tremors of hands and body are reported by 4.5% and 17% of studied participants, respectively.

Discussion:

The present study demonstrated that 91.7% individuals with mild symptoms are at moderate risk while 6.3% of study participants with severe symptoms are at high risk of SAD. These results are contrasting with the previous studies conducted by Mirza stating 34% suffering from SAD However,

in current study total number of partcipants of SAD in rural areas 63.25% are found to be higher than urban 38.7% and this is similar to (Mirza & Jenkins, 2004).In current study, highest prevalence of SAD was observed in adult including 18-29 yrs.with 97.5% (rural 30.69% & urban 69.3 areas) which is comparable to (Bano et al., 2019) with high prevalence of SAD in adolescents (15-17 yrs) 22.5%. Results from current study showed xerostomia among 59.75% partcipants as compared to another study with 51% partcipants. 69.5% participating suffered insomnia.

Conclusion:

Modification in work place environment consoling and recreational activities can reduce SAD among young generation.

Limitations:

The sample employed in the design was a convenience sample, and participants were not compensated. Instead, they were requested to complete some extra questionnaires for a follow-up that was previously planned for them. The study's results are further constrained by the sample selected, which has constraints of its own. The outcomes of this pilot research, however, were just intended to see if there were any other noteworthy discoveries to look for. The sample was thus enough for the investigation. To learn more about the connection between SAD and strengths, an intervention study might be one of the most appropriate designs to use. The intervention's design would demonstrate any differences between before and after increased use of strengths. The research on SAD also uses an intervention technique, such as cognitive behavioral therapy, to track changes in the severity of psychopathology. Therefore, future research will need a diverse study that includes regular treatment, a control group, and a group that builds on their strengths in order to analyze the different results.

Recommendations:

The data in this study was collected at the community level with various parameters, but these parameters need to be evaluated to cover all aspects. Identify triggers that contribute to stress and practice stress-management techniques such as mindfulness or journaling to cope with stress and reduce the risk of anxiety.

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