Assessment of psychosocial variables in adults with and without mental illnesses

Abstract

This study assessed two different psychosocial variables family functioning and social support in the sample of mental illnesses (depression, anxiety, schizophrenia and substance use disorders) and healthy controls. Family functioning was evaluated with Family Assessment Device [1] and social support was examined with Multidimensional Scale of Perceived Social Support [2] for 120 healthy controls and 120 diagnosed out patients. Results indicated that healthy participants scored higher on social support questionnaire and lower on family assessment device. Moreover, perception of social support was better in participants with anxiety disorders in comparison to depression, substance use and schizophrenia respectively. Furthermore, participants with anxiety disorders reported improved family functioning than schizophrenia, depression, substance use respectively.

Keywords: family functioning, social support, mental illnesses

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Introduction

High occurrence of mental disorders and their disabling consequences has been proven in Pakistan and common mental illnesses causing disability are depressive disorders, substance use disorders, schizophrenia, epilepsy, alzheimer disease and mental retardation [3]. According to Mirza and Jenkin [4] findings, prevalence of anxiety disorders is 34% and depressive disorders for women range 29%-66 % and 10%-33% for men in Pakistan.

Among numerous possible psychosocial elements associated with psychopathology, one factor is family impairment. It is family's inability to complete tasks that are essential for their well-being [5]. Studies reported that family functioning has a strong association with mental illnesses and good relationship with siblings and supportive families can protect an individual against the development of mental illnesses [6]. Matrimonial disharmony, social disadvantages and overcrowding can be family factors lead to mental disorders [7-9]. High criticism [10] and poor family communication have been observed in families of patient with depression. Some evidences also suggested that families of patients with schizophrenia appear to display poor family functioning compared to healthy individuals [11]. It has been noticed that anxious parents and controlling family interactions promote development of anxiety [12]. Studies considering the role of family and relationship in development and maintenance of drug use disorders have identified a strong link between disrupted interpersonal relationships and drug addiction [13,14].

Social support is one of the most investigated constructs in the course of mental illnesses. Lin, et al. [15] presented a broad definition of social support "support accessible to an individual through social ties to other individuals, groups, and the larger community". In the last three decades, social support has gain attention of a number of researchers in investigations of psychological illnesses and investigators have found positive impact of social support on both physical and mental health. Many researchers explored the role of social support among patients with psychiatric illnesses and concluded that supportive social system and positive attitudes and behavior of family can motivate the patients with severe mental issues in seeking treatment. Some studies suggested that high social support is associated to low depression [16]. Similar findings have been observed for other mental disorders and family support and healthy interpersonal relationships are considered as one of the most important protecting sources against substance disorders [17]. Social support from family members and friends always play a key role in both in addiction and treatment [18]. Healthy interpersonal relationships and attachment have

tendency to discourage individual's involvement into illicit drugs [19]. Moreover, researches have also shown strong connection between social support and the schizophrenia [20-25]. The aim of this study is to assess self-reported family functioning and social in a clinical sample of adults that includes schizophrenia depression, anxiety and substance use disorders with control sample.

Research Method & Procedure

This cross sectional two arms using purposive sampling technique study was conducted under the supervision of Clinical Psychology department of University of Karachi, Pakistan. Permission for conducting this study was taken from ethical research committee of University of Karachi. 240 volunteers equally distributed in males and females of ages between 18 and 45 years with minimum 10 years of education were included in the study from August 2017 to December 2018. In the sample there were 120 diagnosed patients of mental illnesses (60 males and 60 females) and 120 individuals without mental illnesses (60 males and 60 females). Among 120 diagnosed patients, there were 30 patients diagnosed with schizophrenia, 30 patients with anxiety disorders, 30 patients with depressive disorder and 30 patients with substance use disorders. Patients with mental illnesses were diagnosed by their respective psychiatrist and clinical psychologist on the basis of DSM-V criteria at least 6 months before data collection and approached from different mental hospitals, psychiatric units, and psychological clinics and rehabilitations centers of Karachi, Pakistan. Participants without mental illnesses were recruited from different public and private universities and organizations.

The brief orientation about nature of the study was provided and then participants were asked to sign the consent form for their voluntary participation in the study. After that participants were asked to complete the demographic information form and then two scales were administered.

Description of Measure

A. Family Assessment Device (FAD): Family Assessment Device developed by Epstein, Baldwin and Bishop [1] is based on the McMaster Model of Family Functioning (MMFF), and it measures structural, organizational, and transactional characteristics of families. It consist of 7 sub scales with 60 items and the respondent has to rate how well each items describes his/her family. Each statement is rated on a 4-point liker scale, "Strongly Agree" to "Strongly Disagree". For the seven Family Assessment Device alpha coefficient scales showed adequate internal consistency, with alphas ranging from 0.69 to 0.86.

B. Multidimensional Scale of Perceived Social Support (MSPSS): Multidimensional Scale of Perceived Social Support (MSPSS) [2] consists of twelve items with three subscales; each addresses a different source of support, (family, friends, and significant other). This is a Likert-type scale, comprised of 7 points, ranging between very strongly disagrees and very strongly agrees. MSPSS has internal reliability of 0.93 and 0.91, 0.89, and 0.91 for the family, friends, and significant others respectively. Cronbach's alpha coefficient and the Intra-Class Correlation Coefficient (ICC) is 0.89 and 0.92, respectively.

Statistical Analysis

The Statistical Package for Social Science (SPSS) version (20) was used in order to analysis the set of data. Initially, the Cronbach Alpha was applied as well with respect to investigate the reliability of the scales before going to collect the large sample of data. Descriptive statistics was applied in order to present the demographic of respondents. Analysis of Variance (ANOVA) was used in comparing the groups of with mental illnesses and without mental illnesses. Beside this, post hoc analysis was applied over a data with the purpose of comparing the mean among schizophrenia, depression, anxiety and substance use disorder.

Results

TABLE 1 showed that group without mental illnesses is found to score significantly low than all four clinical groups on family assessment device questionnaire. TABLE 2 showed that there is a statistically significant difference between groups as determined by one-way ANOVA (F (4.235)=13.806, p=0.000). Post-hoc comparison indicated that the mean of family functioning of participants without mental illnesses (M=2.2940, SD=0.27743) was lower than anxiety (M=2.4967, SD=0.29775), substance use disorder (M=2.5310, SD=0.23807), depression (M=2.5537, SD=0.30115), and schizophrenia (M=2.6287, SD=0.27887) respectively. TABLE 3 presents the post hoc HSD test, to reflect the difference of healthy control group from four groups of mental illnesses and results showed that there was a significant difference between Family Functioning of participants without

mental illnesses and anxiety (MD=0.2026, p=0.000), depression (MD=0.2596, p=0.000), schizophrenia (MD=0.3346, p=0.000) and substance use disorder (MD=0.23700, p=0.000) TABLE 4.

TABLE 5 reports the one-way analysis of variance of social support between individuals with mental and without mental illnesses. The results showed that there was a statistically significant difference between with and without mental illnesses groups as determined by one-way ANOVA (F (4.235) =10.751, p=0.000). TABLE 6 presents the post hoc HSD test, to reflect the difference of without mental illnesses group from four groups of mental illnesses. Mean of social support of participants without mental illnesses (M=5.2257, SD=1.20573) was higher than schizophrenia (M=3.82, SD=1.3),

TABLE 1. Descriptive.

Source		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
FF	No Disorder	120	2.294	0.27743	0.02533	2.2439	2.3441	1.47	2.77
	Anxiety	30	2.4967	0.29775	0.05436	2.3855	2.6078	1.81	3.17
	Depression	30	2.5537	0.30115	0.05498	2.4412	2.6661	1.9	3.49
	Schizophrenia	30	2.6287	0.27887	0.05092	2.5245	2.7328	2.03	3.08
	Substance use	30	2.531	0.23807	0.04347	2.4421	2.6199	2.04	3.05
	Total	240	2.4233	0.30717	0.01983	2.3842	2.4623	1.47	3.49

Note: FF=Family Functioning, N=Sample Size

TABLE 2. One-Way analysis of variance of family functioning between participants with and without mental illnesses.

Source	F	Sig
FF with and without Mental illnesses	13.806	0.000*

Note: FF=Family Functioning, df=4.235 (with and without mental illnesses), df=3.116 (with mental illnesses)

TABLE 3. Post Hoc Analysis among with and without mental illnesses groups Multiple Comparisons.

Dependent Variable: Family Functioning						
(I) Diagnosis of Patient	(J) Diagnosis of Patient	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
No Disorder	Anxiety	-0.20267*	0.0569	0	-0.3148	-0.0906
	Depression	-0.25967*	0.0569	0	-0.3718	-0.1476
	Schizophrenia	-0.33467*	0.0569	0	-0.4468	-0.2226
	Substance Use	-0.23700*	0.0569	0	-0.3491	-0.1249

Note: FF=Family Functioning, MD=Mean Difference. *The mean difference is significant at the 0.05 level.

TABLE 4. Descriptive.

Source		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
PSS	No Disorder	120	5.2257	1.20573	0.11007	5.0077	5.4436
	Anxiety	30	4.5497	1.35832	0.24799	4.0425	5.0569
	Depression	30	4.486	1.40656	0.2568	3.9608	5.0112
	Schizophrenia	30	3.8227	1.33083	0.24297	3.3257	4.3196
	Substance use	30	4.0753	1.26213	0.23043	3.604	4.5466
	Total	240	4.7295	1.37405	0.08869	4.5548	4.9043

TABLE 5. One-Way analysis of variance of perceived social support between participants with and without mental illnesses.

Source	F	Sig
PSS with and without Mental illnesses	10.751	0.000
PSS with Mental illnesses	1.992	0.119

Note: PSS=Perceived Social Support, df=4.235 (with and without mental illnesses), df=3.116 (with mental illnesses)

TABLE 6. Post Hoc analysis of perceived social support among with and without mental illnesses groups.

Multiple Comparisons							
Dependent Variable	(I) Disorder	(J) Disorder	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
PSS	No Disorder	Anxiety	0.67600*	0.26006	0.01	0.1637	1.1883
		Depression	0.73967*	0.26006	0.005	0.2273	1.252
		Schizophrenia	1.4030*	0.26006	0	0.8907	1.9153
		Substance use	1.15033*	0.26006	0	0.638	1.6627

Note: PSS=Perceived Social Support. *The mean difference is significant at the 0.05 level.

substance use (M=4.07, SD=1.2), depression (M=4.48, SD=1.4) and anxiety disorder (M=4.54, SD=1.3) respectively. Post hoc analyses also indicated that mean score of social support of participants with schizophrenia disorder was significantly lower than depression (MD=0.66, p=0.04) and anxiety disorder (MD=0.72, p=0.02).

Discussion

The aim of the present research was to investigate the impact of Family Functioning and social support among individuals with and without mental illnesses. Results showed that significant differences were obtained between the mental illnesses sample and healthy controls where participants with mental illnesses were found to have poor level of family functioning than the healthy individuals. There are strong evidences that family functioning can be impaired in families of patients with schizophrenia, bipolar disorder, and recurrent depression as compare to families without mental illnesses [10,11,26-28,]. Efficient family functioning leads to good communication, problem-solving and affective responsiveness [29]. A study by Heru and other colleagues [30] revealed that the level of family functioning was impaired among the caregivers of psychiatric patients as compared to the control group. Similar outcomes were obtained in another cross-sectional study conducted on a non-clinical sample and in that research various families were assessed on a number of demographic factors, individual psychopathology and the family functioning. Only family functioning was found to be significantly correlated to mental illnesses [31]. Results revealed highest mean difference between participants without mental illnesses and schizophrenia disorder. Patients with schizophrenia appeared with poorer family functioning as compare to all other mental illnesses. Family part in the development of schizophrenia has been extensively studied by George Brown [32,33] and results also highlight the influential role of family in the course of schizophrenia disorders.

Results also revealed significant mean difference between participants without mental illnesses and depressive disorder. Patients with depression found to be with poorer family functioning as compare to participants without mental illnesses. These results are consistent with prior studies. Both genetic and environmental factors are associated in the course of mental disorders [34] and among environmental factors, family plays a vital role in emotional development of children during childhood [35], and which can influence the onset of mood disorders in adults [36]. Researchers found impaired family functioning of individuals with depression [30,37-40]. Other evidence has also reported that families of depressed patients continue to report impaired family functioning in comparison to non-clinical families after recovery from depression [37,38,40]. In a Chinese depressed sample it was observed that perception of family functioning was significantly worse as compared to control families [41].

Result also showed significant mean difference between participants without mental illnesses and substance use disorders. Patients with substance use disorder were found with poor family functioning as compare to participants without mental illnesses. These results are consistent with previous findings as family functioning is known to have a substantial impact on the development and maintenance of substance use disorders and in this regard, family behavior and its functioning have a central role in the prevention and modeling of substance abuse disorders [42]. A study by Schafer [43] showed that most of the participants with substance use disorders experienced painful and traumatic events in their childhood with disturbed relationships.

Significant mean difference was also observed

between participants without mental illnesses and anxiety disorder. Patients with anxiety disorder were found with impaired family functioning as compare to participants without mental illnesses. These results are consistent with previous researches. Researchers found that disturbed family interactions promote development of anxiety and anxious and controlling behavior of parents has been linked with increased anxiety disorder [12].

This study also investigated the impact of Social Support with relation to four different mental illnesses and healthy controls. Results indicated that level of perceived social support was significantly higher among participants without mental illnesses as compare to participants who were with different mental illnesses. Social support has a role in prevention and recovery of mental illness. There is an enormous amount of literature that suggests importance of social support in wellbeing of both physical and mental state. Davis [44] found that individuals with high perceived social support were more likely to deal with stressors even in the presence of mental disorders vulnerability. In other words, a better perception of social support provides a defense against development of psychopathologies.

Moreover, individuals with social support are more likely to adopt better coping strategies at the time of trauma [45] or we can conclude that psychopathologies are lesser likely to develop in people with good quality social support than those who have the poor one. In another research by Brown and Harris [46] reported that women with intimate and reliable relationship were less likely to develop depression than those who didn't have such support.

Results revealed that mean difference was significantly higher in perceived social support between participants without mental illnesses and schizophrenia disorders as compare to other mental illnesses (participants with schizophrenia reported low scores on Multidimensional Scale of Perceived Social Support questionnaire). Patients with schizophrenia usually experience difficulty in developing and maintaining relationships and lack in good social support [47]. Similar results were found by Sundermann and his colleagues [48] that patients with schizophrenia tend to perceive low social support than individuals from non-clinical population. After schizophrenia highest significant difference was observed in the score of perceived social support between participants without mental illnesses and substance use disorders. Participants with substance use disorders scored lower than participants without mental illnesses. Patients with limited members in their social network and low social support plays an important role in substance use [49,50] and social support is linked with more positive drinking outcomes [51]. On the other hand, stable relationship and strong family support tend to protect against use and relapse of alcohol and other substance use disorders [49,52,53].

The study's result also reported that participants with depressive disorder obtained low scores as compare to participants without mental illnesses on perceived social support scale. Perceived social support from family, friends and significant others is significantly associated with reduced depressive symptoms [54]. Perceived social support is known as stronger predictors of decreased depression in young adults [55]. In a systematic review, 89% studies confirmed a significant connection between social support and protection from depression among adults [56]. Present study results also showed a significant difference in the scores of perceived social support between without mental illnesses and anxiety disorder. Participants with anxiety disorder reported lower level of social support which is consistent with prior studies' results. There are strong evidence that patients with generalized anxiety disorder face significant difficulties in interpersonal functioning [57], insecure attachment relationships [58,59] and marital conflicts [60]. In another research, patients with anxiety disorder reported less security of attachment to parents as compare to the control group, with specification of lower level of trust, poorer communication, and feelings of isolation [61].

Limitations and Recommendations

All mental illnesses must be compared separately with healthy controls with an equal number of participants; equal number of participants in each group can influence the results.

Moreover, educational status of participants is also a limitation. Educated participants are presumed to have educated family and social circle. Say, it may be the education status that has designed the behaviors of people around and perception of participants. The query is required in the domain if educational status is lowers down, the investigated factors would be working the same way or not.

In this study English version of scales were used; English isn't Pakistan's first language and

it may interfere with the study's results as some of participant could not get the exact meaning of questions.

Conclusion

Results revealed that family functioning was poorer and social support was lower in individuals with mental disorders. Researches shows family functioning and social support can help in protection from the harmful effects of stress and while dealing with stressful situations, individuals report reduced stress-related health problems when they experience support from their family members and significant others.

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