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IMPACT OF PSYCHOSOCIAL REHABILITATION ON PATIENTS WITH SCHIZOPHRENIA

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ABSTRACT

The current work was conducted to asses the impact of psychosocial rehabilitation program on symptoms and quality of life of patients with schizophrenia. The study was carried out on 24 male patients with an age range of 21-70 years (M=38, SD=11) admitted in a residential rehabilitation centre with the diagnosis of schizophrenia. The study consisted of three phases: assessment, therapeutic, and re-assessment. Patients were assessed in both assessment phases by the following instruments: Positive and Negative Syndrome Scale (PANSS) and WHO Quality of Life Bref scale (WHOQOL BREF). The therapeutic phase consisted of involvement in daily activities and Psychoeducation Teaching Module, especially designed for this study. Two-way repeated-measures ANOVA was conducted to investigate the effect of rehabilitation program on symptoms of schizophrenia and quality of life. The results showed significant main and interactional effects with a significant decrease in symptoms of disorder and increase in quality of life as a result of rehabilitation program. Apart from conventional treatment of psychosis, the findings of this study suggest, psychosocial rehabilitation programs structured according to behavioral paradigms should be initiated in psychiatric units for improving the clinical profile as well as overall functioning of the patients with schizophrenia.

INTRODUCTION

Despite major genetic contribution to schizophrenia, psychiatric treatment has not been proved fully effective for improving quality of life of patients with schizophrenia. There is ample evidence that psychosocial rehabilitation is a vital complement to medication for individuals with schizophrenia and it helps to maximize functioning and recovery (Moriana, Alarcon, & Herruzo, 2006). Many studies suggest unmet need for psychosocial treatment services along with psychopharmacologic treatment among individuals with schizophrenia (West et al., 2005). In the active phase of illness, medication enables patients to be more receptive to psychosocial treatments; and during periods of remissions while patient is still on maintenance, psychosocial rehabilitation programs continue to help patients to improve quality of life.

The problem with conventional psychiatric treatment is that patient-related stressors and psychosocial aspects of personality are ignored because more attention is paid to reducing symptoms. Many mental health professionals emphasize the importance of identifying the stressors and accentuate on pre-discharge concerns and suggest extreme need of psychosocial rehabilitation programs, before sending them to live in community, to train them in coping skills against stressors (Kimhy & Nelson, 2004).

The main goal of psychosocial rehabilitation is to help patients improve their day-to-day lives and restore their ability to function independently. Apart from medical and psychosocial treatment, it also include ways to foster social interaction, to promote independent living, and to encourage vocational performance (Cook, Pickett, Razzano, et al., 1996). The primary symptoms of schizophrenia are usually controlled with narcoleptics, however less obvious symptoms like loss of interest, loss of energy, loss of warmth and loss of humor do not respond well to the medication and do respond to rehabilitation process.

Over the years, researchers have documented the superiority of community-based rehabilitation centers over traditional psychiatric hospitals for the effective management of schizophrenia. Guazzeli, Palagini, Giuntoli, and Pietrini (2000) described a program that combined the basic philosophy of providing a long-term, community-based residential alternative to hospitalization with a commitment to the use of evidence-based psychiatric rehabilitation techniques. They also reported the results of an evaluation of two-year outcomes for 19 program residents with schizophrenia. As a group, the residents showed

reduction in overall psychiatric symptoms of more than 40 percent as measured by the Brief Psychiatric Rating Scale (BPRS). Intensive psychosocial rehabilitation programs have also been proved highly effective for the patients with chronic mental illness (Baker et al., 1999).

Quality of life is a central concept in measuring the effectiveness of any treatment to psychiatric disorders. There is ample evidence to support that rehabilitation programs can increase quality of life of people with long term psychiatric illness. For example, studies have indicated that residential home care can lead to a better quality of life for people with long term psychiatric illness (Holzner, Kemmler, & Meise, 1998). Mental health professionals feel the dire need of half-way houses for the patients with schizophrenia as they are helpful in teaching psychosocial skills to the patients for their independent living (Umansky, Tellias, Tzidon, & Kotler, 1999). Such half-way houses are very much functional in developed countries. However, many developing countries mostly rely on the traditional psychiatric units with narcoleptic medications as the primary mode of treatment. Sheth (2005) identified common problems in psychosocial rehabilitation faced by the members in the developing countries. He categorically jotted down the problems like financial resources, lack of trained staff, lack of job opportunities, societal insensitivity and expressed emotions in the family, which are responsible for reemergence of the psychiatric symptoms. Some of these problems also create impediment in the rehabilitation of schizophrenia in Pakistan and most of the psychiatric units in hospitals lack rehabilitation programs for the recovery of patients.

Fountain house Lahore is one of very few rehabilitation facilities in Pakistan. As the first rehabilitation unit it was established in 1971 as a result of technical collaboration with Fountain House New York. Fountain House Lahore, started with nine patients, is currently catering more than 200 residential patients while offering them medical and psychosocial rehabilitation services. The ideology of Fountain house is that most of the sufferings of the mentally ill are caused by their isolation and neglect by the society, hence their self-respect and personal dignity need to be restored to make them useful and contributing members of the society in accordance with their aptitude, capacity and capability. The current study focused and explored the impact of psychosocial rehabilitation activities on the prevalence of schizophrenic symptoms as well as quality of life as perceived by the patients. Apart from assessing the usefulness of rehabilitation activities currently practiced at Fountain House, a Psychoeducation Teaching Module (PTM) was also introduced, so that the effectiveness of an integrated

rehabilitation model is assessed and in case of significant improvement in the condition of patients, this program could be suggested for implementation not only at the Fountain House but also at the traditional psychiatric units in the country.

Following hypotheses were formulated in this study:

1- There will be a decrease in symptoms of schizophrenia after participating in rehabilitation programs.

2- The quality of life of residential patients will be enhanced after going through psychosocial rehabilitation program.

METHOD

Sample

All male patients admitted in Fountain House between 1st November and 31st December 2006 and diagnosed with schizophrenia and schizoaffective disorder were contacted to participate in this study. A total of 34 male patients were admitted during this period out of which 30 volunteered to participate. All of these patients were on medication before this admission as out-patients. The reason of the later criterion was to rule out the confounding therapeutic effect of medicine. Six patients had to be excluded from the study later as they left Fountain House before the completion of rehabilitation Phase, which was decided to be of 3 months for each patient. The final sample consisted of 24 male patients. All those patients with drug induced psychosis or brief psychotic episode were not included in the sample. Moreover, female patients were not included in the study as daily activities of the female wing of Fountain House were different from those practiced at the male unit.

Research design

A repeated-measure A x A design was employed in this research to assess the significant of difference in symptoms of schizophrenia and quality of life before and after the introduction of psychosocial rehabilitation activities.

Measures (Phase I and III):

The following research tools were employed to obtain the required information for this research

Positive and Negative Syndrome Scale (PANSS; Kay, Opler, & Fiszbein, 1987)

The PANSS serves the need for focused evaluation of positive and negative dimensions of schizophrenic disorder. To optimize the scale's objectivity and standardization, a Structured Clinical Interview for the PANSS (SCI-PANSS; Opler, Kay, & Lindenmayer, 1989) was used. The scale has 33 items, which are scored for a) Positive scale - measuring items that are added to normal mental status; b) Negative scale- assessing features absent from a normal mental status; c) Composite scale - specifies the degree of preponderance of one syndrome over the other; and d) General psychopathology scale- gauges the overall severity of schizophrenia; e) Supplement aggression risk- assess aggression risk. An interview procedure is used to get detailed information related to patient's symptoms. There is no true or false answer and rating is done on a seven- point scale ranging from absent to extreme.

The WHOQOL-BREF (WHOQOL Group, 1996)

The WHOQOL-BREF has been designed to measure health, beyond traditional health indicators such as mortality and morbidity, and includes measures of the impact of disease and impairment on daily activities and behaviour. This briefer version contains 26 items, with one item from each of the 24 facets contained in the WHOQOL-100. In addition, two items from the Overall quality of Life and General Health facet have been included. All items in the WHOQOL-BREF are rated on a 5-point scale. Four types of scales are used to assess intensity, capacity, frequency and evaluation of quality of life including a) Physical health; b) Psychological health; c) Social relationship; and d) Environment. The four domain scores are scaled in a positive direction, with a score range of 0-100 and with higher scores denoting higher QOL. The two individual items assessing overall QOL are also treated in the same way.

Feed Back from the Patients

After the completion of psychoeducation teaching module patients were asked to provide feed back in writing regarding the usefulness of the whole module. Feedback of illiterate patients was obtained and filled in by a rehabilitation program staff. Patients' satisfaction was obtained on a 5-point Likert scale with 1 indicating very dissatisfied and 5 denoting very satisfied.

Phase II: Psychosocial Rehabilitation Program

The following rehabilitation programs were planned for this study
A-Daily Activities practiced at Fountain House Lahore
B-Psychoeducation Teaching Module (PTM)

A. Daily Activities

Participation of patients in daily activities of Fountain House was assessed by a checklist specially formulated for this purpose. The daily activities of Fountain House start with Dars-e-Quran after morning assembly is held. The members work in various occupational units namely pre-vocational unit and teaching unit. The duration of the units is one hour followed by group therapy. After the tea break members go for the music class which lasts for one-hour. The evening sports last for one and half hour and are monitored by sports instructor. Patients were daily assessed through psychosocial rehabilitation checklist by rating their active or inactive participation in respective rehabilitation activities by their concerned psychologists. The following daily psychosocial rehabilitation activities of the patients were rated:
a-Participation in assembly and Dars-e-Quran (teaching of Holy Book of Muslims, Al-Quran)
b-Participation in occupational units
c-Participation in group therapy
d-Participation in music therapy
e-Participation in evening sports

All these activities were rated on a score between 0-70. Excluding Sundays and other holidays, participation in these activities was rated for altogether 70 days in 3-months rehabilitation phase. Participation on all activities was rated on simple yes/no format, and participation in each activity on a single day would yield a score of "1", whereas nonparticipation was scored as "0". The final score of a patient was calculated by getting an average of the aggregate score on all five activities (summative score of all five scales divided by 5).

B. Psycho-Education Teaching Module

Psycho-education teaching module was specially formulated for this research and was implemented in the teaching unit (mentioned above) for three months. Training on each of the following skills was imparted to the patients

once a week in the teaching unit; hence each skill was practiced in 12 classes. Participation score was generated in the same way as was adopted for the daily activities. Likewise, the score range on each skill was 0-12 where a score of "1" was given for each active participation. Hence, a person showing active participation on all occasions of a skill training workshop would get a maximum of 12 score. The final PTM score of a patient was an average of the aggregate score on all skills. The PTM consisted of the following areas:

1. *Social Skills Training*

Basic emphasis in social skills class was given to interactive skills and role playing exercises, which were conducted in different role settings like host versus guests, parent versus children, employee versus employer, shopkeeper versus customer. These roles were interchangeable and participant had to comment on others role. Patients who were sitting as audience also had to critically comment on each exercise. The veteran patients played a leading role so that new patients could follow them.

2. *Money Management Class*

In this class patients were taught about rates of goods used on daily basis. They were given certain tasks like how will they manage their month if they are given certain amount. The patients have to discuss their whole-month monetary planning in the class and the class has to give feedback about the planning of the patient. In this way, participation of the entire group was ensured.

3. *Debates*

Patients were required to express their opinion on different assigned topics, for example, importance of work, peace, family, self, personal weaknesses and strengths, mental health, sources of happiness, aims of life, where am I and why, etc.

4. *Greetings*

In greeting class patients were taught about the importance of greetings and verbal and nonverbal behavior in their daily life and communication. Patients were indulged in role playing exercises while concentrating on shaking hand, eye contact, verbal tone and expressing well-wishes. The class was required to

provide feedback. Patients were given demonstrations on how to talk on the phone with their family or friends and how they have to initiate and end up their conversation.

5. News- and- Views and General Discussion

In news-and-views class patients (on their turn) were asked to read a daily Urdu newspaper and then the whole class would discuss the salient news.

6. Review of Whole Week and Relaxation Exercise

In this class patients were required to review their past week while differentiating their bad from good days and to indicate how they perceived both. Each session would end on relaxation exercise conducted along light music.

Procedure

All those patients admitted during 1st November and 31st December were invited to participate in this study. Those who agreed to participate were required to sign on the informed consent agreement which stated that the purpose of this rehabilitation program was to enable the patients live more effectively in the community and also that the information obtained will be kept confidential and anonymous. This was also mentioned that patients could decide to leave any time during the course of the study. It was made clear to them that in case of their agreement to participate, they must attend all daily activities along with psychoeducation teaching module regularly. The study consisted on three phases. Activities of these phases are described below:

Phase 1: In this phase, demographic information was first obtained from the patient volunteers. During the first week of admission, patients were evaluated by PANSS and WHOQOL-BREF. Apart from semi-structured interview schedule, observation was also used as an adjunct measure for assessing symptoms included in PANSS. Questions in WHOQOL-BREF were presented to the patients in the order in which they appear in the scale. About 60% of the patients could read and fill the Urdu version of the scale. A Master's level psychologist read all items to the rest of the patients and filled the questionnaires according to their responses. For all patients PANSS was administered before WHOQOL-BREF.

Phase II: Rehabilitation program was implemented in this phase which was initiated from 1st December 2007. Patients could join this phase any time during December and January depending on the time of their admission. However, they had to participate in rehabilitation activities for three months. The program activities started from morning assembly till evening sports. Involvement and participation in daily activities was rated on a checklist by the concerned psychologist. The other part of rehabilitation was introduction of PTM which was introduced specially for this research to create and modify essential daily life skills in the patients. This phase continued for 3 months for each patient and ended on 31st March 2007; those who joined in December finished sometime during February, while those joining in January would complete their rehabilitation in March.

Phase III: Patients were reassessed after 3 months on PANSS and WHOQOL-BREF to explore the impact of psychosocial rehabilitation progress on characteristics symptoms of schizophrenia and quality of life.

RESULTS

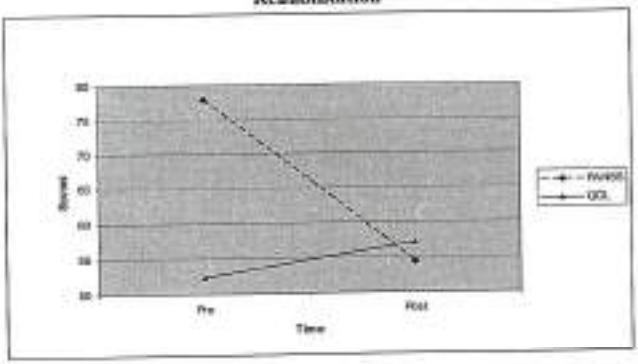
The results were computed using Statistical Package for Social Sciences (SPSS) Version 10.00. Two-way Repeated measure ANOVA was computed to asses the impact of psychosocial rehabilitation by measuring pre- and post-rehabilitation scores on PANSS and WHOQOL-BREF. Table 1 shows that there was significant difference in PANSS scores at pre and post rehabilitation phases. Similarly, a significant difference was observed in the QOL scores. Besides these two significant main effects, there was a significant interaction between scores of QOL and PANSS with patients' quality of life increasing and symptoms of schizophrenia decreasing after involvement in rehabilitation program. This highly significant interaction can be seen clearly in Figure 1.

Table 1
Two-Way Repeated Measure ANOVA showing PANSS and QOL Scores on Pre and Post Testing (N=24)

Source of variance	SS	df	MS	F
PANSS	3101.537	1	3101.53	8.99*
Error	7932.583	23	344.89	
QOL	2123.108	1	2123.10	27.18**
Error	1796.424	23	78.10	
PANSS * QOL	4824.284	1	4824.28	55.40**
Error	2002.671	23	87.07	

*p< .01 **p< .001; QOL: Quality of life scale; PANSS: Positive and Negative Syndrome Scale

Figure 1
Scores on PANSS and QOL at Pre- and Post-Psychosocial Rehabilitation



Effects of rehabilitation on sub scales of the PANSS were assessed by using paired sample *t*-tests. Scores on all subscales of PANSS decreased following rehabilitation. T-test was not computed in case of composite dimension

of PANSS, as it denotes the degree of preponderance of one syndrome over the other. This analysis showed that at pre-testing, patients had predominantly negative symptoms while at post-testing, positive symptoms were in excess (see Table 2).

Table 2
Mean Scores on Sub Scales of PANSS and QOL at Pre and Post Rehabilitation phases (N=24)

Measure	Timing of Testing		t
	Pre-rehabilitation M(SD)	Post rehabilitation M(SD)	
Positive sub scale	16.25 (2.4)	12.58 (3.62)	4.82*
Negative sub scale	16.54 (3.50)	11.58 (4.47)	5.57**
Composite score	-0.21 (3.6)	1.00 (3.52)	
General psychopathology	38.41 (4.37)	25.83 (7.80)	8.34**
Supplement Aggression risk	6.70 (1.26)	4.33 (1.97)	4.82*
Total scores PANSS	77.91 (8.34)	54.33 (16.14)	
QOL	52.37 (12.92)	57.14 (7.39)	

*p< .01. **p< .001

A correlation matrix was also computed between involvement in all psychosocial activities and scores on QOL and PANSS. Participation score was generated by summing up the average scores on both rehabilitation programs: daily activities and PTM. Although participation was positively associated with quality of life and inversely related with PANSS symptoms, none of the correlations reached statistical significance implying that mere participation in rehabilitation activities could create beneficial effects.

Analysis of patients' feedback regarding their satisfaction with the rehabilitation program indicated that majority of the patients (65%) were very satisfied with the program followed by 24% as being satisfied. A minority of the patients (4%) showed their dissatisfaction over the rehabilitation activities, while 7% were not sure about the program effectiveness.

DISCUSSION

This study aimed to explore the impact of psychosocial rehabilitation programs on patients with schizophrenia. Rehabilitation programs are integral part of mental health in developed countries and effectiveness of them is well-

established. However, in Pakistan majority of the psychiatric units just follow traditional models of treatment and hence no attention is paid to social and psychological rehabilitation of the patients. Similarly, half-way houses or rehabilitation centers are in very limited number in Pakistan. In the light of these circumstances, any study investigating the effectiveness of these programs is a beneficial addition to the literature.

The results obtained from this work are consistent with the previous findings generated from studies conducted across the world. Not only the symptoms of schizophrenia were significantly reduced but also the quality of patients' lives was improved as a result of psychosocial rehabilitation. The use of antipsychotic medication in treating patients with schizophrenia has been found very effective, particularly in terms of reducing a patient's need for re-hospitalization. However, some issues of QOL of patients treated with antipsychotic medication have yet to be clearly addressed. Many researchers have favored the use of rehabilitation programs for achieving the desired effects on patients' QOL. In a cross-sectional study of 60 outpatients with schizophrenia, the effects of a work-related rehabilitation program on patients' QOL was investigated. The results showed greater life satisfaction and functional QOL in the rehabilitation group for the majority of life domains (Hoherer et al., 1998).

The overall score of PANSS was reduced in post rehabilitation while showing the reduction in positive, negative, general psychopathology and supplementary items for the aggression risk. Although psychosocial rehabilitation may not have direct effect on schizophrenic symptoms, as medication are supposed to do, participation in several psychosocial activities could have an indirect impact by restoring self confidence, creating sense of responsibility, maximizing social functioning and influencing overall recovery of the patient. Earlier studies advocate the importance of psychosocial skills training in treatment of patients with schizophrenia. Researchers have also suggested the need to initiate hostels or halfway houses for preparing schizophrenic patients for the community setting. Comparing the quality of life in schizophrenic patients living in psychiatric hospitals and half-way houses, Umansky et al. (1999) found that out of 69 patients, 61 patients who lived in the hostel and were taught psychosocial skills were coping well with their independent living. Out of 61 patients 8 had one re-admission and only one of the readmitted patient stayed in hospital for longer than three weeks.

The extent of therapeutic effect of psychosocial rehabilitation shown in this study can also be attributed to the structure of the program. The activities were formulated in such a way that patient were kept busy from morning till evening. Moreover, all activities were based on some specific goals to uplift the quality of life of patients starting from the morning assembly emphasizing personal hygiene and time management on one end and creating WE feelings among patients through mutual activities on the other end. Similarly participation in occupational units helped the patients to concentrate on constructive actions. It was observed that patients' pre-occupied thoughts, peculiar mannerism and posturing were considerably reduced after working in these units as this participation helped in improving mind-body coordination. The main target to achieve in these units was to restore patients' self confidence by being involved in useful activities eventually decreasing their symptoms and improving their overall quality of life. Rest of the activities like group therapy, music therapy and sports therapy also contributed positively in psychosocial rehabilitation of the patients. In addition to existing rehabilitation activities, the psychoeducation teaching module, which was specially formulated for this research, also had positive impact on the patients. This module catered areas like social skills training, money management training, greeting skills, and involvement in discussions, general awareness, and mind-body relaxation exercises. The basic emphasis was on restoration of patients' self-respect so that they are better prepared to enter in the community. Patients' self-reports of satisfaction with the current rehabilitation program also showed the validity of these findings. It has been well acknowledged that QOL can be measured appropriately only by the patient's opinions, not by the instruments developed by experts (Gill & Feinstein, 1994).

Another factor underlying therapeutic effect of rehabilitation program may be the attention that patients received from the rehabilitation staff during the course of this study. The staff-patient interaction based on empathy and unconditioned positive regard for three months was an added benefit to this rehabilitation program. This also implies that the mental health professionals' attitude can also contribute to the better functioning of the patients. May be because of such associations it is often believed that modern science is still unable to produce better tranquilizer than a few kind words.

The results of this study have provided ample evidence to mental health professionals to think that in addition to conventional psychiatric treatment of the patients with schizophrenia, psychosocial rehabilitation programs can play a

pivotal role in reducing the symptoms and improving overall Quality of life of the patients. Mueser et al. (2004) cited review of the research on illness management and recovery. Results of 40 randomized controlled studies indicated that psychoeducation and social coping skills training improves people knowledge of mental illness, that behavioral tailoring helps people take medication as prescribed, that relapse prevention programs reduce symptom relapses and re-hospitalization, and that coping skills training using cognitive behavioral techniques reduce severity and distress of persistent symptoms. In a more recent study, Moriana et al. (2006) tested an intervention that adapted the University of California, Los Angeles (UCLA) social and independent living skills program for application in the patient's home and in an outpatient setting in Spain. They compared an intervention group of 32 patients with schizophrenia with a matched control group of patients who were undergoing conventional outpatient treatment for schizophrenia during six-month treatment periods. The researchers found that a combination of patient follow-up care and in-home care centered on psychosocial skills training was more effective than conventional treatment in improving general symptoms among individuals with schizophrenia.

The post rehabilitation composite score on PANSS which was acquired by subtracting negative symptom score from positive symptom score showed that negative symptoms are more likely to reduce after rehabilitation activities. A previous study also showed a 20% decrease in negative symptoms on the Scale for the Assessment of Negative Symptoms (SANS), which measured affective flattening, avolition, alogia, and anhedonia, as result of two-year rehabilitation program with schizophrenia (Guazzelli et al., 2000). Although there is some evidence that positive psychotic symptoms may be the predominant determinant of QOL (Patterson et al., 1997), negative symptoms have been widely reported to deteriorate QOL (Carpiniello, Lai, Pariante, Carta, & Rudas, 1997) and are considered to be an important prognostic indicator (Ho, Nopoulos, Flaum, Arndt, & Andreasen, 1998). Negative symptoms have also been found to be associated with greater severity of the disorder in schizophrenia (Suhail & Chaudhry, 2006). In the light of these associations, decrease in negative symptoms in patients as a result of rehabilitation program is very promising and has important implications for mental health professionals working with psychosis.

The findings of this research indicate that a debilitating disorder like schizophrenia with multifaceted perceptual, thought and relationship problems require a treatment model targeting multiple areas of functioning. Rather than just concentrating on conventional psychiatric treatment, other crucial aspects of

human life which could bring stagnation in the overall physical and mental health recovery of the patient should also be attended. Psychosocial rehabilitation, therefore, can be considered an essential adjunct step for restoring self confidence and overall functioning of the patient and can act as a catalyst in the community re-entry plan. Although this study has useful contribution in the literature in Pakistan on treatment and rehabilitation of psychosis, the results must be interpreted with care due to some methodological weaknesses. For example, there was no control group for comparison which would have helped in separating the experimentally manipulated therapeutic effects from the nonspecific therapeutic effects like automatic remission with the passage of time. Actually, there were a limited number of admissions during the 2-month patient entry phase, which could not be further divided into two groups. The existing patients of Fountain House were also non comparable to the study group because of their different rehabilitation experiences. Another limitation of the study was that only male patients were included, hence no comments can be made about the effectiveness of these programs for female patients.

CONCLUSIONS

The results of this study indicate that apart from conventional psychiatric treatment, psychosocial rehabilitation should also be considered as a vital component for the treatment of patient with schizophrenia. The rehabilitation activities should be carefully designed to cater the essential components of human functioning and quality of life. It is recommended that all psychiatric hospitals in Pakistan should have psychosocial rehabilitation units to act as a bridge between the hospital and the community.

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LOCUS OF CONTROL: AN IMPORTANT DETERMINANT OF SELF ESTEEM AND PERCEIVED LIFE SATISFACTION OF MARRIED WOMEN

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ABSTRACT

The study aims to determine the effects of internal and external locus of control upon self-esteem and perceived life satisfaction of married women. It was hypothesized that Married women with internal locus of control will have higher perceived self esteem and perceived life satisfaction than married women with external locus of control. To find out the difference between both the groups, the sample comprised of 82 married women with age range of 25 to 40 years. They were approached individually and consent was taken for their participation as a sample. After gathering demographic information, Rotter's Internal-External Locus of Control Scale (Rotter, 1966a), Self Esteem Scale (Rosenberg, 1963) and Satisfaction with Life Scale (Diener, Emmons, Larsen & Griffin, 1985) were administered. 't' test was applied in order to find out the difference between women with internal and external locus of control. Results reveal significant difference in the level of self-esteem (t =-3.203, df = 80, p< .01) and life satisfaction (t = -3.285, df = 80, p< .01), between women with internal (Self esteem X = 32.34 and life satisfaction X=20.02) and external (Self esteem X =29.60 and life satisfaction X= 17.34) locus of control. It is clear that the self-esteem and life satisfaction of women with internal locus of control is significantly higher than women with external locus of control. Hence, it is interpreted that internal locus of control helps to develop better self-esteem and contribute in the development of higher level of life satisfaction than external locus of control. Avenues for future research have also been given.

INTRODUCTION

Certain people believe that what is happening to them is due to external forces, while other people think, it is due to their own efforts.

Rotter (1966b) developed Internal/ External (I/E) scale. Rotter used the term locus of control to refer to people's beliefs about whether the results of their actions are under their own control. Such beliefs, he concluded, are as important as the actual re-inforcers and punishers in the environment. People who have an internal locus of control (Internal) tend to believe that they are responsible for what happens to them, that they control their own destiny. People who have an external locus of control (External) tend to believe that they are victims (or sometimes beneficiaries) of luck, fate or other people. (Cited in Tavris & Wade, 1997).

Tavris and Wade, states "some psychologists maintain that the very notion of being in control of your destiny reflects middle –class and Western view of life: Work hard enough and anything is possible (Markus & Kitayama, 1991). For some poor people and minorities, in contrast having an external locus of control is one way to preserve self-esteem and cope with objective difficulties. They say, in effect, "I am a good and worthy person; my lot in life is a result of prejudice, fate or the system" (Crocker & Major, 1989)."

Janssen and Carton (1999) and Smith and Jonides (1997) are of view that advantages of internal locus of control can be seen through better mental health and psychological functioning. Carducci (1998) document that, generally high achievers have internal locus of control. They also take preventive measures, fell less stress and report less depression than those with external locus of control (Plotnik, 2002).

Internal and external locus of control may determine ones self-esteem and life satisfaction. Baron and Byrne (2005, p639) consider self-esteem as, "the self-evaluation made by each individual, one's attitude toward oneself along a positive-negative dimension." Baron and Byrne, (2005, p238) states, "In most instance, high self-esteem has positive consequences, while low self –esteem has the opposite effect (Leary, Schreindorfer & Haupt, 1995). For example, negative self-evaluations are associated with inadequate social skill (Olmstead, Guy, Malley, & Bentler, 1991), loneliness (McWhirter, 1997), depression (Jex,

Cvetanovski & Allen, 1994), and poorer performance following a failure experience (Taforodi & Vu, 1997)".

Psychological well being of individual is also highly influenced by high self-esteem. With the feeling of control over event and positive self-perception such individual struggles even in depressing situations (Taylor & Brown, 1988). Similarly study on females by Harrison et al. (1981) explains that women with nontraditional behaviors shows internality and high self-esteem, and traditional women display externality and low self-esteem.

Life satisfaction is another important variable influenced by Locus of control and self-esteem. As cited in Corrigan (2000), life satisfaction is one factor in the more general construct of subjective well-being. Theory and research from fields outside of rehabilitation have suggested that subjective well-being has at least three components, positive affective appraisal, negative affective appraisal, and life satisfaction. Findings of Thurnau, (1979), indicate that high self-esteem is associated with lack of anxiety and life satisfaction, whereas low self-esteem is related to coronary heart disease.

Work of Grayson (1997) indicates that those less prone to depression have higher life satisfaction. Alike, William et al. (2000) found that self-esteem is a sign of life satisfaction. Likewise Wardle, Steptoe, Gulis, Narodn, Sartory, Sek, et al. (2004) documented that "depression and low life satisfaction were associated with low perceived control and mastery and with strong beliefs in the influence of chance over health".

However, sometimes one can observe complete opposite picture, and clear-cut signs of satisfaction are observed in a people with low self-esteem, whereas less satisfaction is seen in person with high self-esteem. This may be due to attribution style as the work of Baker and Labouvie (1977) imply that satisfaction is the consequence of past success and failures and is related to locus of control. The survey on college students demonstrate that greater personal responsibility and time pressure was found more in those with high and moderate life satisfaction than with low life satisfaction. The findings of Bailey and Miller (1998) go with "expansion hypothesis of life satisfaction", which indicate that life satisfaction is related positively with approaching than avoiding-life.

As there is a cultural difference between East and West, therefore the objective of this research is to determine whether also in Pakistani culture

internal locus of control contributes in the development of comparatively better self-esteem and life satisfaction than external locus of control or it does not. Our research has targeted married women only; later the work would be extended to Pakistani males as well.

Hypothesis

Married women with internal locus of control will have higher self-esteem and perceived life satisfaction than married women with external locus of control

METHOD

Sample

The sample comprised of 82 married women with age range of 25 to 40 years. Their minimums educational level was graduation and they all belonged to middle socioeconomic class of different localities of city of Karachi.

Measures

- Rotter's Internal-External locus of control scale (1966a)
- Self Esteem Scale (Rosenberg, 1965).
- Satisfaction with life scale (Diener, Emmons, Larsen, & Griffin, 1985)

Procedure

Married women were approached individually and their consent was taken for their participation as a sample. After gathering demographic information, Rotter's Internal-External Locus of Control Scale, Self Esteem Scale and Satisfaction with Life Scale were administered. t' test was applied in order to find out the difference of Self esteem and life satisfaction between women with internal and external locus of control.

RESULTS

Table 1
t' test showing mean difference in the level of self esteem of women with internal and external locus of control

Groups	N	Mean	t	df	Level of Significance
Internal locus of control	47	32.34	-3.203	80	.002
External locus of control	35	29.60			

Table 2
t ' showing difference in the level of life satisfaction of women with internal and external locus of control

Groups	N	Mean	t	df	Level of Significance
Internal locus of control	47	20.02	-3.285	80	.002
External locus of control	35	17.34			

DISCUSSION

Research was conducted to find out the role of internal and external locus of control in the development of self-esteem and life satisfaction of married women. It was hypothesized that Married women with internal locus of control will have higher self-esteem and perceived life satisfaction than married women with external locus of control. Statistical analysis clearly indicates that there is a significant difference between married women with internal locus of control and married women with external locus of control on the variables of self-esteem ($t = -3.203$, $df = 80$, $p < .01$) and life satisfaction ($t = -3.285$, $df = 80$, $p < .01$). Both seem to be less in women with external locus of control than women with internal locus of control. Hence, our results are similar to the work of William et al. (2000),which shows as reported earlier that self-esteem is related to life satisfaction; and Baker and Labouvie (1977) which expresses that satisfaction is the consequence of past success and failures and is related to locus of control.

Although there are innumerable factors that are positively and negatively related to self-esteem and life satisfaction, but Individual's attribution style is one of the important variables contributing in the development of self-esteem and life satisfaction. It is clear that those Pakistani married women who have internal locus of control have high level of self-esteem, and they tend to be more satisfied with their lives. It appears that these women are less anxious, ready to take risk and feel self-responsible for their successes. Attribution biases may be present in them, which can be seen through their denial of responsibility for their failures. Opposite is true with Pakistani women with external locus of control, who most of the time feel responsible for their failures and have low self esteem and life satisfaction.

People with high self-esteem are more likely to be motivated to be engaged in self enhancement, whereas people with low self esteem seems to be motivated to defend themselves against failures (Baumeister, Tice, & Hutton, 1989). Findings of Bhagat and Chassie (1978) also support that locus of control and self-esteem plays a significant role in the development of personal life satisfaction. Mental health professionals and counselors with internal locus of control may have high job and life satisfaction; less disturbed and fatigued; sense of achievement in their work, and more positive approach towards clients (Koeske & Kirk, 1995).

CONCLUSION

It is concluded that internal locus of control helps to develop better self-esteem and contribute in the development of higher level of life satisfaction than external locus of control of Pakistani married women. Internal locus of control is indeed advantageous if, responsibility of achievement and failure are taken with reality. The situations become unreal when one takes entire responsibility of success upon self and disregard failure although he is blameworthy. The study is valuable for Counselors and Clinical Psychologist, as they may better understand the etiology of their female patients by understanding the relationship of these variables.

Avenues for future research

- Future research comparing the difference in the level of life satisfaction and self-esteem of working and nonworking married and single women of different socio economic class with internal and external locus of

control can give us clear picture of role of locus of control in development of self-esteem and life satisfaction of Pakistani women.

- It would be interesting to conduct Cross-cultural research on same variables with emphasis on gender difference.

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SPECIFIC LEARNING DIFFICULTIES: IMPLICATIONS FOR SOCIAL PSYCHOLOGICAL FUNCTIONING

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ABSTRACT

The present research examined the prevalence of specific learning disabilities and its implication for social psychological functioning among girls. The research was carried out in two phases. The first phase comprised of development of a screening check list and assessing the I.Q level of learning disable and non-disable girls. Raven Colour Progressive Matrices was used for the assessment of level of intelligence. The second phase involved Investigation of psychological co morbidity among learning disable and non-disable girls, and 'Human Figure Drawing test' was used for the assessment of psychological co morbidity. The sample of phase one comprised of 200 hundred girls students who were initially assessed on screening checklist to find out the presence of symptoms of specific learning disabilities. Those girls students who responded yes to twelve or more than twelve symptoms were selected for further assessment and rest of them were excluded as they were not showing symptoms of learning disabilities. Seventy five girls out of two hundred were diagnosed as suffering from specific learning disabilities. Similar assessment procedure was adopted with seventy five non disable girls students. It was hypothesized that poor self image, anxiety, depression and aggression will be more prevalent among girls suffering from specific learning disabilities than those without specific learning disabilities. Results supported our hypotheses. It was found that girls suffering from specific leaning disabilities showed greater number of emotional indicators on Human Figure Drawing Test measuring poor self image, anxiety, aggression and depression as compared to non disable girls who showed lesser number of

emotional indicators. The relationship between specific learning disabilities and psychological co morbidity was evident and supported some of the previous findings.

INTRODUCTION

A disability is an impairment (permanent or temporary) that substantially limits one or more major life activities. Unlike other disabilities such as paralysis or blindness a specific learning disability is a hidden handicap. A learning disability doesn't disfigure or leave visible signs that would invite others to be understanding or offer support (Individual With Disability act-IDEA, 1990).

Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may, manifest itself in an imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations. The term includes such conditions as perceptual handicap, brain injury or minimal brain dysfunction, dyslexia and developmental aphasia. The term does not include children who have problems that are primarily the result of visual, hearing, motor disabilities, mental retardation, emotional disturbance, or of environmental, cultural, or economic disadvantage (Individual With Disability act-IDEA, 1990).

The learning disability association of America states that, specific learning disability is a chronic condition of presumed neurological origin which selectively interferes with the development, integration, and nonverbal abilities. Specific learning disabilities exist as distinct handicapping conditions that vary in manifestations and in degree of severity. Throughout life, the condition can affect self-esteem, education, vocation, socialization and daily living (LDA, 1986). The National Joint Committee on Learning Disabilities states that, "Learning disability is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening seeking, reading, writing, reasoning or mathematical abilities " (NJCL, 1987).

The National Institute of Mental Health in its report freedom to learn states that basic skills for learners with learning difficulties and disabilities affects 10% of the general adult population and 4% severely (NIMH, 2000). According to the United States Department of Education (2002), more than one in six children will experience difficulty to read during the first three years of

school. More than 2.8 millions children receiving special education services; out of them 52 percent identified as having learning disabilities. The rate of occurrence of learning disabilities in girls is similar to boys. National centre for learning disabilities (2002) conducted an epidemiological study and found that as many girls as boys have difficulties in learning.

Learning disabilities manifest itself in different forms like difficulty in writing, reading, spelling and mathematical calculations. It also results in problem in memorization, attention and following directions. On the basis of the nature of difficulties learning disorders has been classified into different types in Diagnostic and Statistical Manual of Mental Disorders (DSM IV; APA, 1994) which are following.

i. Reading Disorder
ii. Mathematics Disorder
iii. Disorder of Written Expression
iv. Learning Disorder not otherwise specified

Learning disable children exhibit certain characteristic that distinguishes them from children who do not have problems of learning. These characteristics are Impulsivity, Perceptual Problems, Cognitive and Metacognitive Problems, Long term Memory problems, Visual Discrimination, external Locus of Control Lack of Phonological awareness, Slowness in Naming, Pronunciation Problem, Difficulty with Concepts of time and Space. Apart from these problems there are some psychological co morbidities which develop secondarily to a disability that adversely effect social and emotional life of the individuals who have such disability. These factors manifest itself in the form of anxiety, depression, aggression, poor self esteem and low motivation. Sabornie (1994) found that students with learning disabilities have poor self concept related to their school functioning, but not necessarily to their global concept. Other researchers have also found that students with learning disabilities as early as in grade 3, have negative academic self concept that may be generalized from low self-views in specific academic subjects (Hiebert et al., 1997).

Silver (1997) says that learning disabilities are total life disabilities, as it interacts with all facets of the child life affecting cognitive, educational, social and emotional development. Berninger and Abbot (1997) found those children with problems of written language often exhibit deficit in attention, motivation and conduct problems. Research has demonstrated that students with learning disabilities experience emotional distress and tend to have higher level of

emotional concern such as depression, loneliness and low self esteem than peers without disabilities. Bruck (1998) in her review of the literature related to social and emotional adjustment concluded that children with learning disabilities are more likely to exhibit increased level of anxiety, withdrawal, depression, and frustration compared with non disable peers.

Learning disabilities have also been linked to greater anxiety in children. Margalit and Zak (1984) found that children with learning disabilities have higher levels of anxiety than their peers without disabilities. They tend to feel that things are beyond their control most of the time. Increased level of anxiety is also reflected in more frequent somatic complaints by students with learning disabilities (Margalit & Zak, 1984).

Researchers have consistently linked depression to children with learning disabilities. Fristad et al. (1972) found the presence of learning disabilities among a sample of clinically depressed hospitalized children to be seven times higher than in the general population. Other researchers have also noted the high "comorbidity" of learning disabilities and depression. He suggested that additional difficulties experienced by depressed children with learning disabilities in the class room may be due to the stress and frustration caused by their learning disabilities (Fristad, et al., 1995).

Margalit and Raviv (1984) studied the expression of minor somatic complaints in learning disabled children. They assert that minor somatic complaints, such as stomach aches, feelings of stress and inadequacy are designed to prompt adult support and guidance. Students who frequently complain of minor physical discomfort but do not have physical illness may be using the somatic complaints to avoid situations they may be manifesting unrealized anxiety in physical manner. Morgan and klien (2000) reviewed case histories of learning disable children and found that all of them reported feelings of difference, inferiority, loneliness and isolation. Rescind and Goldberg (2003) investigated the presence of anxiety in learning disable children. They found that children and adolescents with learning disabilities experienced increased level of anxiety as compared to young people without learning disabilities.

From all these research evidences it appears that learning disabilities is a serious problem which not only interferes with academic achievement but also are threatening to the psychological health of an individual. The purpose of this

study is to find out the magnitude of the problem in Pakistan, investigating its social and psychological repercussions.

Hypotheses

The following hypotheses were formulated for the present research

1. Girls suffering from specific learning disabilities will have poor self Image than those who do not have such disabilities.
2. Anxiety, depression and aggression will be more prevalent among girls suffering from specific learning disabilities than those who do not have such disabilities.

METHOD

Sample

A sample of 400 girls students ranging in age from 8 to 12 years were selected through simple random sampling technique for phase one of the study from different public and private schools in Peshawar situated in Cantt, City, Town and Hayatabad area. Total ten schools were randomly selected. School authorities were contacted and purpose of the study was explained to them. Out of ten, two schools refused to participate in the research. Those who showed willingness to participate were asked to provide the list of enrolled students in class three, four and five. The names of all enrolled students were randomly (lottery method) selected. Mean age of girls was 10. The Sample of the second phase comprised of seventy five diagnosed learning disabled students in phase one and seventy five non disable students ranging in age from 8 to12 years from different public and private schools in Peshawar situated in Cantt, City, town and Hayatabad area. Mean age of girls was 10 from class three, four and five.

Measures

The data was collected with the help of four instruments.

I. Screening check list for specific learning disabilities

It consisted of 24 most common presenting symptoms of learning disabilities.

II. Semi-structured interview

Semi-structured interview was conducted from parents and teachers to collect information about nature, history, duration, intensity of the problem, girl's academic performance and behavioural problems in home and school.

III. Raven Colored Progressive Matrices (Raven & Court, 1886)

The Raven colored progressive matrices are designed for use with young children. It can be used satisfactorily with people suffering from physical disabilities, aphasia, cerebral palsy or deafness, as well as with people who are intellectually subnormal or have deteriorated. In this study this test was administered on learning disabled and non disabled girls to assess their intellectual level.

IV. Human Figure Drawing Test (Macover, 1949)

Human figure drawing has become one of the most widely used techniques of psychologist working with children. Two main approaches to the interpretation of Human Figure are as projective technique and developmental test of maturity. The foremost exponent of the projective approach was Macover, 1949. In this study this test was used to identify psychological comorbidity i.e. anxiety, depression, aggression and nature of self image among learning disabled and non disabled girls.

Procedure

The research was conducted in two phases. In the phase one screening check list was developed for the identification of girls suffering from specific learning disabilities. Screening checklist was based on symptoms reported in case histories of children who suffered from learning disabilities. Twenty four symptoms were selected which most common were presenting symptom of specific learning disabilities with the consultation of four clinical psychologists. They were than checked against the diagnostic categories given in DSM IV. Pilot study was conducted to find out the diagnostic validity of screening checklist it was found that due to language barrier teachers were unable to understand the symptoms properly. Therefore the screening checklist was translated in to Urdu with the consultation of language experts. The standard procedure of translation was used. Initially the screening check list was given to

language experts for translation. The translated version was discussed with other experts to choose best translation. Finally it was given to judges to decide on the symptoms that have diagnostic value. School authorities were contacted individually and the purpose of the study was explained to them. After their willingness for participation meeting was arranged with class teachers of 3rd, 4th, 5th grade. Purpose of the study was briefly discussed. Screening checklist and personnel information sheet was given to teachers and every item was explained to them in detail. Teachers were asked to assess the students with the help of screening checklist. Four hundred girls students were assessed in this way. Out of four hundred, those students who responded yes to twelve or more than twelve symptoms were selected for further assessment and rest of them were excluded as they were not showing symptoms of learning disabilities. In the second phase girl students who were diagnosed as suffering from specific learning disabilities and non disabled girl students were contacted. After building rapport with the students IQ test and Human Figure Drawing Test was administered individually. Finally semi-structured interview was conducted from parents and teachers to collect information about nature, history, duration, intensity of the problem, girl's academic performance and behavioral problems in home and school. School authorities were thanked for their cooperation.

RESULTS

T-test was applied to see the significance of results. (All statistical analysis was carried out with the help of computer package of "SPSS" statistical package for social sciences).

Table 1

Mean, standard deviation, t-value of non-disable and learning disable group on emotional indicators on human figure drawing test

Group	X	SD	t	p
Non-Disable (n=75)	1.64	.90		
			-6.964	.000
Learning Disable (n=75)	2.91	1.30		

Table 2
Frequency of occurrence of emotional indicators related to poor self-image on human figure drawing test for learning disable and non-disable

Emotional indicators	Non-Disable (n=75)		Disable (n=75)	
	Frequency	%	Frequency	%
Shading of face	10	13.3	20	26.67
Monster or grotesque figure	1	1.3	20	26.7
Gross asymmetry of limbs	0	0	1	1.3

Table 3
Frequency of occurrence of emotional indicators related to aggression on human figure drawing test for learning disable and non-disable

Emotional indicators	Non-Disable (n=75)		Disable (n=75)	
	Frequency	%	Frequency	%
Poor integration of parts or figure	0	0	3	4
Transparencies	0	0	0	0
Teeth	1	1.3	36	48
Long arms	22	29.3	30	40
Big hands	50	66.7	60	80
No body	0	0	0	0
No arms	0	0	60	80
Crossed eyes	0	0	0	0

Table 4
Frequency of occurrence of emotional indicators related to anxiety on human figure drawing test for learning disable and non-disable

Emotional indicators	Non-Disable (n=75)		Disable (n=75)	
	Frequency	%	Frequency	%
Shading of body or limbs	23	30.67	35	46.6
Shading of hands neck	27	36	50	66.6
Broken lines	0	0	3	4
Slanting figure	14	18.6	50	66.6
No legs	0	0	50	66.6
No feet	1	1.3	20	26

Table 5
Frequency of occurrence of emotional indicators related to depression on human figure drawing test for learning disable and non-disable

Emotional indicators	Non-Disable (n=75)		Disable (n=75)	
	Frequency	%	Frequency	%
Tiny figure	16	21.3	25	33.33
No mouth	10	13.3	70	93
Arms without hands	0	0	21	28
No eyes	0	0	0	0

DISCUSSION

The major objective of this study was to investigate its implications for social psychological functioning by observing co morbidities related to specific learning disabilities among learning disable and non disable girls. Due to poor literacy skills and slowness in the speed of processing information learning disabled child tend to operate in a generally muddled and untidy way. They may forget assignments and miss dead lines. Some children have outstanding creative skills, others have strong oral skills but unfortunately these creative skills go unrecognized within school as usually the teacher's response to these children is negative. Teachers rate their student ability mostly on performance in reading and writing and due to their poor performance they ignore or underestimate child abilities which further make the learning disabled child vulnerable to develop negative perceptions about his or her abilities. Our study explored the relation ship of learning disabilities and poor self image. Findings supported our first hypothesis which stated that, "Girls suffering from specific learning disabilities will have poor self image than those who do not have such disabilities". Learning disabled girls showed significantly high number of emotional indicators suggesting poor self image than non disabled girls. Development of poor self image is inevitable due to negative reactions from parents, teachers, peers and poor academic performance which further generate feelings of inadequacy, failure, hopelessness and helplessness in learning disabled girls. Socially learning disable child is often named as foolish, silly, or feeble minded. So it is not only inefficiencies that make learning disability a serious problem but also the adverse reactions and feed back they receive from their social surroundings. Therefore the persence of poor self image suggest that a child lacks self confidence, is overwhelmed by challenges in academic and social environment or has little hope for future. In case of girl child the situation is even worse as she has to

struggle not only for learning disability, poor self image but also for her gender. Similar findings are revealed by the previous researchers.

Fawcett (1995) discussed the feelings of twenty dyslexic school children having specific disabilities in the area of reading. These children reported that becoming aware that they were not learning things which their peer seemed to find easy, their first response was almost always to conceal it. Crealock (1995) concluded that sufferings that is endued by dyslexic children in school and the resultant psychological scarring is hard to quantify, but it adversely effect the emotional well being, motivation and behavioral stability of the dyslexic. Similarly Kabla and Furness (1996) found that as many as seventy five percent of children with learning disability have social skill deficits, problems in establishing and maintaining friendship, feelings of loneliness and low self esteem.

The difficulties in learning experienced by learning disabled pupils may also lead to social and behavioral difficulties in class and at home. The frustration of prolonged failure on a range of curriculum subjects, resulting in feelings of insecurity and lack of confidence can have profound effect upon social status, friendship patterns in class, acceptance and adjustment in the play ground. Aggressive and anti social behavior may result from stress that they go through. The findings of the present study also revealed the relationship of learning disabilities with aggression, anxiety, and depression, which supported our second hypothesis (table, 3, 4, 5) which stated that, "Anxiety, depression and aggression will be more prevalent among girls suffering from specific learning disabilities than those who do not have such difficulties." The learning disabled girls showed greater number of emotional indicators showing anxiety, aggression and depression than non disabled girls. The reason may be that children with specific learning disabilities begin to wonder if they can trust their vision of the world, because they see it differently. Their visual or auditory processing may not be precise, their thinking or time management may be slightly organized or they may have trouble reading subtle social cues. So many children feel out of control internally and try to take control in other aspects of their lives. Apart from this at school, underachieving pupils may be perceived as lazy and not trying hard enough and their failure may be viewed in terms of poor behavior and attitude. Increased impatience and an attitude of blame on part of the teacher intensify the pupil anxiety, frustration, and confusion. This frustration and confusion will further manifest itself in aggression and depression. Aggressive behavior is inevitable in learning disable children because it is one of the responses under

frustrating situation. Some pupils withdraw when frustrated and others intensify their efforts to reach a goal by non aggressive means. But learning disable children are prone to equate school achievement with competency and loss of competence led to the feelings of inadequacy, depression, withdrawal and uncaring attitude.

Depression might also evolve out of feelings of frustration due to lack of control over problem and the environment. Experiencing significant levels of emotional distress or behaving in ways, which others find difficult to understand or accept can have devastating impact on life experiences of learning disable child and their families. Being depressed or regularly experiencing anxiety is likely to have significant impact on relationships. Emotional and behavioral difficulties also interfere with education and may lead to social exclusion. Previous researchers also supported the presence of psychological co morbidities among children suffering from learning disabilities.

Margalit and Zak (1984) found that children with learning disabilities have higher level of anxiety than do their peers without disabilities. Specifically they tended to feel more often that most of the events are beyond their control. Mrgalit and Shulman (1986) suggested that anxiety displayed by learning disabilities may be expressed in somatic complaints. Abrams(1991) found that failure experienced by students with learning disabilities result in excessive anger which can be expressed outwardly on other or inwardly on themselves in the form of self damaging act. In another study Bawden (1992) reviewed a large number of studies using human figure drawing test for finding relationship between learning disability and behavioral difficulties and concluded that learning disabilities are associated with aggression because learning disabled children exhibited greater number of emotional indicators showing aggression on human figure drawing test like poor integration, teeth and shading. Fristed et al. (1995) found the presence of learning disabilities among a sample of clinically depressed hospitalized children to be seven times higher than in general population.

Mag and Behrens (1999) found that prevalence of depression in children with learning disabilities range from fourteen percent to twenty four percent. The greater risk for depression evolves from specific learning visual-spatial difficulties because it interferes with social functioning resulting in co morbid presence of depression.

The frequent occurrence of emotional indicators on HFD in learning disable sample reflects strong association of learning disabilities and psychological co morbidity which is note worthy. It was found that a number of learning disable girls were having poor self image, anxiety, aggression and depression which can further lead towards maladjustment in school, family and society in general. The risk of developing psychological comorbidities is more double for female child as compared to male child with similar problems because of lack of concern from parents an special institutions needs to be established at national level focusing on development of remedial procedures for specific learning disabilities. Early diagnosis and intervention in children with learning disabilities makes a substantial improvement in self confidence and social competency which helps them in opening windows of opportunity in school and society.

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RELATIONSHIP BETWEEN PARENTAL CONTROL AND PERSONALITY DEVELOPMENT OF CHILDREN

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ABSTRACT

The objective of the present study was to examine the relationship between perceived parental control and personality dispositions on the one hand, and differences as they exist between perceived parental control scores of the male and female children on the other. The Control Scale (Rohner, 1990) and Personality Assessment Questionnaire (Rohner, Saavedra & Granum, 1978) were administered on a sample of 192 male and female school children belonging to middle class families. The t-tests and correlation were computed. The t-test indicated no significant mean differences on parental control scale among male and female children. The relationship between parental control and personality dispositions indicated that the cultural context is important towards understanding the relation between these two variables.

INTRODUCTION

Family is the primary institution in which socialization and the process of humanization takes place (Bower, 1972). Parents are the most significant people during childhood and the child has a need to be loved, valued and cares by them (Hjelle & Zeigler, 1981). Empirical studies on the interaction between parents and children have been steadily accumulating. Among the aspects of parental behavior frequently studied are acceptance-rejection (Martin, 1975; Rohner, 1999) and permissiveness-strictness (Baumrind, 1968, 1991). Parental warmth and parental control are shown to be two major dimensions of parenting in all human societies. Individually and together they are significantly associated with a number of distinct personality characteristics (Rohner & Nielson, 1978).

Recently, research involving the study of the parental acceptance and rejection has also included measures of parental control, that is, parents efforts to regulate children's behavior. Although parental control has been conceptualized in various ways, it is defined here in the terms of continuum consisting of permissiveness (low or lax control) at one end and restrictive or strict control at the other. Operationally, the degree of parental control refers to children's perceptions of his position of the parents on that continuum. Rohner predicts that acceptance/rejection and parental control are separate dimensions of parental behavior and will be either unrelated or inconsistently related (Rohner, Khaleque, & Cournoyer, 2003b).

The present study was designed: (i) to see the relationship between perceived parental control and personality disposition and (ii) to examine gender differences in perceived parental control scores of children.

METHOD

Sample

The sample of the present study consisted of 98 female and 94 male school children selected through stratified random sampling technique from different residential areas of Karachi city. The mean age of girls and boys was 14.3 and 14.8 years respectively.

Measures

In the present study, two self report questionnaires, the Parental Control Scale developed by Rohner (1990), and Personality Assessment Questionnaire (PAQ) developed by Rohner, Saavedra and Granum (1978) were used.

Control Scale

The Control Scale is designed to measure individual's perceptions of parental control, asks children to reflect their mother or fathers behavior towards them. The control scale contains 13 items. Rohner and Khaleque (2003) reported the validations of parental control scale designed to be used internationally. For the parental control scale alphas ranged from 0.66 to 0.81 with a mean alpha of 0.73.

Personality Assessment Questionnaire

Child PAQ attempts to measure children's perceptions of their own personality and behavioral dispositions which includes seven behavioral dispositions consisting of six items in each scale, making a total of 42 items in all. The reliability and validity study of the Child PAQ were originally carried out on a sample of 220 children. For the child PAQ alphas ranged from 0.46 to 0.74 with a median reliability of 0.63 (Rohner, et al., 1978).

RESULTS

The data were analyzed to see differences between male and female children's in terms of the subjects' perceptions of parental control by computing t-test, Table 1 presents means, S.D., and t-values for parental control scale.

Table 1
Means, Standard deviations and t-values for control scores of male and female children

Total Control Score	Girls(n = 98)		Boys(n = 94)			
	Mean	*SD*	Mean	SD	t	p
Father, referent	40.95	4.92	42.63	4.30	1.08	NS
Mother, referent	42.74	3.84	42.60	4.08	0.24	NS

Table 1 shows Means, Standard deviations and t-Values for parental control scores for (both fathers and mothers). The mean values indicated that all the respondents signify that parents usually try to control the youth's behavior. These parents are demanding and directive. It is clear from the Table 1 that with respect to father as well as mother the differences between scores of boys and girls are not statistically significant on the Parental Control Scale.

To examine the relationships of the total parental Control Scores to Total PAQ scores, the correlations were computed as could be seen in Table 2.

Table 2
Correlations between total Parental Control scores and total PAQ scores of Boys and Girls

Respondents	Parental Control	Pearson r
Girls	Father Control	-0.16
	Mother Control	0. 04
Boys	Father Control	-0.40***
	Mother Control	-0.14

***p<.001

Table 2 shows no relationship between girl's mother referent parental control scores and PAQ scores; whereas a weak negative relation of PAQ variable with father referent scores of girls and mother referent scores of boys (both NS). The result indicated a highly significant (p<.001) inverse relationship between PAQ and father referent control scores of boys.

DISCUSSION

It was hypothesized that perceived control scores of male children would be positively correlated with total PAQ scores. Our results are portraying a different picture by showing that boy's father referent control scores are inversely correlated with their PAQ scores, which means that paternal firm control is associated with healthy personality organization of male children. Now, the question arises why it is so? In Pakistani family structure father is the bread earner and main authority and decision maker. Pakistani fathers exercise control over their children within the culturally prescribed role of instrumental leadership and head authority. It seems understandable, then, why Pakistani male children perceived paternal firm control as being accepting.

Studies on parental control showed that the cultural context is very important towards understanding the relation between perceived acceptance rejection and perceived control. It is found in different studies that in the cultural

context where strict parental discipline is prevalent it is perceived as normal by the children. In cultures like Korea, (for example, Rohner & Pettengil, 1985) and in Japan (Trommsdorf, 1985) where strict parental discipline is prevalent, it was found to be associated with acceptance rather than rejection. The above results clearly show that the context of socialization has an important effect on the perception of parental control in line with cultural values affecting parents as well as offspring. Rohner, Kean, and Cournoyer (1991) noted that several studies supported the conclusion that the optimal level of control does in fact vary culturally, and that control influences self-concepts only when control is seen as rejection (perhaps when control levels do not conform to cultural norms).

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RELATIONSHIP BETWEEN PARENTAL RESTRICTIVE ATTITUDE AND PSYCHOPATHOLOGY AMONG SINDHI SPEAKING ADOLESCENTS

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ABSTRACT

Present study was designed to examine the relationship between parental restrictive control and psychopathology among Sindhi speaking adolescents. After detailed literature review it was hypothesized that: psychiatric patients would score high on the variable of strict / restrictive parental control as compared to normal adolescents. It is further hypothesized that Psychiatric patient would score low on the variable of perceived parental warmth/acceptance as compared to normal adolescents. In order to test the hypotheses, assessment of parental restrictive attitude was made through adapted version of Parental Acceptance-Rejection Questionnaire/control scale (Imam, 1999), initially questionnaire was adapted in Sindhi language. This Sindhi translated versions of PARQ/Control was administered on a group of psychiatric patient (n=100;50 male and 50 female) to assess their perception about parental attitude and then this result was compared with a group of normal respondents (n=100; 50 male and 50 female).T-test was applied for the statistical analysis of the data. Results show perceived parental restrictive control with less warmth indicates inconsistent parental attitude positively linked with psychopathology of psychiatric group. The hypotheses were significant at p<.001 level. However, for mother referent perception the difference between two groups is not significant.

INTRODUCTION

Parental attitude reflect in parenting style which parents adopt to control and train their children's behavior, for the purpose of making children's behavior conventional with a set of social norms of the adult living in a particular / specific culture. Child's socialization as well as psychological development, behavioral control and limitation of children's behavior are necessary factors in child rearing. Psychological literature indicates different behavioral and emotional controlling techniques through which parents limit their children's behavior (Becker, 1964; Schaefer, 1965; Roe & Siegleman, 1963; Baumrind, 1991a, 1991b & Barber, 1996). In their research mostly researchers found those parents who emphasize on behavioral control, they allow the child to explore the world on his or her own, within the set limits (Barber, 1996, Barber, 1992; Gray & Steinberg, 1999; Steinberg et al., 1991). Behavioral control seeks to measure the extent which certain parents make demands on children, to become integrated into the family whole, and resort to supervisory or disciplinary efforts and confront the child who disobeys (Maccoby & Martin, 1983). These parents use firm control and show respect and acceptance of child's individuality and autonomy, and try to control children's behavior through firm and consistent attitude (Baumrind, 1991). Steinberg (2001) concluded that adolescents benefit from having parents who are warm, firm and accepting of their needs for psychological autonomy and express little dependency, anxiety, or conflict and have an awareness of self- worth. Such type of parenting referred to as authoritative parenting (Baumrind, 1991). Literature reveal the perception of being cared, loved, and valued by parents appears to have much stronger influence on mental health. Parental love and affection help in maintaining emotional security, stability and a positive worldview, positive behavior and normal psychological growth (Bowlby, 1969; Love & Murdock, 2004; Maccoby & Martin, 1983; Kim & Lim, 2004; Dunkle- Schtter & Bennett, 1990; Rohner, 1986, Rohner et al., 2005). Parental Warmth and affectionate is an indication of parents respect of child's individuality and psychological autonomy (Steinberg, 1990). This leads the individual into a range of psychologically healthy developmental pathways.

On the other hand, some parents try to control children behavior with very restrictive and demanding manner. The restrictive or dominating parents cling to a set of rules in which the children have no voice and they attempt to shape, control, and assess the behavior and attitudes of the children according to a set standard of conducts, such as authoritarian style of parenting to control self-

will at those points where the child's action or beliefs conflict with those of the parents (Baumrind, 1991). Restrictive parents show aggressive and demanding attitudes, use inconsistent mode of behavior in child rearing, and deny a child's personal value and respect. Restrictive parents often use psychological control to discipline; and often use guilt induction and love withdrawal to achieve desired behavior (Barber, 1996). Smetana and Daddis (2002) observed that adolescent's feel psychologically controlled when their parents exert control over their personal domain. Parental use of psychological control makes children incompetent and intrudes with their individuality. Psychological control has also deleterious effects on children including depression, low self-esteem, maladaptive guilt, anxiety and withdrawn behavior or externalizing behavioral problems (Barber & Harmon, 2002). Restrictive parental attitudes tend to reduce intimacy between the parent and the child and this reduction may cause the development of feeling of distress in children. Due to this it may be difficult for the child to interpret parental attitude, he may be unsure that whether parents love him or not, or he has value for them or not as they become psychologically arrested, behaves anxiously and displays a lack of confidence and has poor self-concept. As a result, children become anxious and having self defeating attitudes and emotional instability (Gray & Steinberg, 1999) and less satisfied with life (Seibel & Johnson, 2001). Such children are more likely to be vulnerable to depressive disorders (Pomerantz, 2001), anxiety disorders (Donovan & Spence, 2000), OCD, and internalizing problems (Alonso et al., 2004).

The purpose of the present research was to study the parental child rearing attitude (restrictive controlling /warmth accepting attitude) during childhood and later on its outcomes on mental health among Sindhi speaking adolescents. Further, research tries to study the effect of parental restrictive attitude on mental health through study differences between perceptions of psychiatric patients and normal adolescents. This research is a unique one because it is conducted on "Sindhi speaking adolescents and their parents." Sindh, as situated in Asia and Asian culture is collectivistic in nature. Collectivistic societies have their own norms and rules in child rearing and parental restrictive attitude is a primary characteristic of such type of society; due to this the present research tries to find out the meaning of restrictive attitude in parental attitude and its effect on mental health in Sindhi adolescents. The results will help the researcher to provide recommendations to Sindhi society in general, by pointing out the negative consequences of their unnecessary restrictive attitude.

Thus keeping in view all the above considerations about parental restrictive attitude and the development of psychopathology in Sindhi speaking adolescents, the following hypotheses were tested:

1. Psychiatric adolescent patients would score high on the variable of perceived strict/restrictive parental control as compared to normal adolescents

2. Psychiatric adolescent patients would score low on the variable of perceived parental warmth/acceptance as compared to normal adolescents.

METHODOLOGY

Sample

The study was conducted on Sindhi speaking 100 female (50 normal and 50 psychiatric patients) and 100 male (50 normal and 50 psychiatric patients) young adults of Hyderabad, Sindh. The age range was 15-20 years. The mean age of female psychiatric population was 19.5 years and for normal respondents were 18.5. The mean age of male psychiatric population was 18.3 years and for normal respondents was 17.5 years. The two groups of samples of the study; were collected from O.P.D of the Sir C.J Institute of Psychiatry and Liaquat University of Health and Medical Sciences Hyderabad, Sindh. Convenient Sampling technique was used.

Psychiatric patients, who were taken as subjects were already diagnosed by the psychiatrist (posted at the hospitals). Only OPD patients were taken for sampling purpose. Psychotic and those patients who have impaired reality problems were not part of the research, while, normal subjects were selected from the relatives/ siblings of psychiatric patients (subjects). In absence of the siblings the subject were selected from nearest family relations (first cousin). In order to equate the socio-demographic values of both groups, most of the subjects were among lower and lower middle class families.

Measures

In present study Sindhi version of PARQ/Control was administered. To assess parental restrictive attitude Parental control scale was used. Parental warmth and acceptance measured through warmth/acceptance subscale. For this purpose Adult Parental Acceptance-Rejection Questionnaire and Parental control

scale Urdu version (adopted by Imam, 2001), was initially back translated into Sindhi language then the reliability coefficient was determined by test re-test method. Reliability coefficients estimated for the questionnaires proved reliable. The reliability Coefficient of Parental Control Scale as r= .72 and PARQ warmth/ acceptance subscale r= .76. The higher the score on Strict/ restrictive control indicates high restrictive control perceived by the subjects. Higher score on warmth/acceptance scale indicates parental less warmth and acceptance.

Procedure

Each respondent was initially required to fill out a demographic data form and they were asked to complete the back translated Sindhi version of PARQ/Control (warmth/acceptance subscale and parental control scale) scale. Sindhi versions of PARQ/control scale (both mother and father referent), were administered to assess restrictive parental attitude. These scales administered on psychiatric patients, who were taken as subjects were diagnosed by the psychiatrist (posted at the hospitals) .To assess perceived parental attitude, for the psychiatric group individual testing procedure was adopted for their ease. In starting of the testing, some feedbacks were given to build the motivation and rapport. The answers of the question tick by the researcher, other comments, which were given by the patients in the end of the answer, also noted.

Same testing procedure was adopted for normal subjects. The subjects of the both groups were assured about confidentiality of the information to accordingly.

Statistical Analysis

The statistical analysis, (i.e., t-test) was conducted to find out significant mean differences between the scores obtained from psychiatric group and normal respondents.

Operational definitions

Psychopathology defines with especial reference to this study:

Psychopathology refers to the absence of optimal level of mental functioning and refers to clinically significant patterns of behavioral or emotional functioning that are associated with some level or distress, suffering, or impairment in one or more areas of functioning (e.g., school, work, social and

family interactions) such as anxiety disorders, depressive illness, phobias, obsessive-compulsive disorder, psychosomatic disorder, and paranoid ideation. Psychotic and those patients who have impaired reality testing were not part of the research

RESULTS

In order to see the differences in the scores of normal respondents and psychiatric group, the scores of the two groups were compared as under:

Table 1
Mean, SD and t test between Psychiatric Patient and Normal respondents on PAR/Control (Control scale)scale

Scale	Psychiatric Respondents		Normal Respondents		
	Mean	SD	Mean	SD	t
Father Referent	48.64	2.2003	45.38	2.5	8.10*
Mother Referent	47.30	4.2002	45.53	2.6	0.0009

df=198, *p<0.001

Results indicate significant difference for father referent perceived paternal controlling attitudes, between the two groups, with psychiatric patients scoring high as compared to normal respondents. However the mother referent measure of Parental control scale, indicate insignificant difference between perception of normal respondents and psychiatric population

Table 2
Mean, SD and t test between Psychiatric Patient and Normal Respondents on PAR/Control scale (Warmth/acceptance subscale)

Scale	Psychiatric Respondents		Normal Respondents		
	Mean	SD	Mean	SD	t
Father Referent	61.61	2.1	36.96	2.5	2.51*
Mother Referent	59.74	2.1	34.74	2.6	6.51**

df=198, **p<0.001;*p< 0.01

Results on the measure of PAR/control (Warmth/acc subscale) scale father referent, indicates significant difference between psychiatric patients and normal respondents, with normal respondents perceiving more warmth and acceptance as compare to psychiatric population. Similarly, normal respondents perceived mothers as more warm and accepting as compare to psychiatric population who perceived mothers as less warm and accepting.

DISCUSSION

Findings of the present research are consistent with the hypotheses of the study. The research findings suggest parental use of restrictive attitude towards their children is the basic characteristic of Sindhi speaking parental child rearing attitude but at the same times parents show warmth and acceptance. These results are similar to other Asian studies which have been done in Asian societies, which are collectivistic in nature. In collectivistic societies parental restrictive or authoritarian attitude equates with Baumrind's concept of authoritative parenting (Chao, 1994; Kornadt, 1987; Rohner & Pettengill, 1985; Trommsdff & Lwawki, 1989). Such type of parents show strict restrictive attitude with warmth, concern and consistency in parental attitude. Previous researches indicate that restrictive control is not used for domination. The organized control that parents use is for the purpose of keeping family harmony such as strictness regarded as very positive (Chao, 1994). Collectivistic involves placing high value on duty and obligation to the family, and the responsibility to the family is more important than individuals' autonomy or achievement (Arnett, 2001).) Therefore, parents emphasize the behavioral control of the children strictly (Schonpflug, 2001). In a study Dwairy (2006) also found that Arabs parents use authoritarian parenting attitude to maintain family connectedness and according to the result of this study higher level of adolescent-family connectedness is associated with better mental health of adolescents.

Strictness and restrictive parental attitude, associated with less parental warmth and acceptance, reflect inconsistency in parental attitude. Data analyses of the present study indicate that such type of parenting attitude is reflected in the results of psychiatric group. Psychiatric group perceived parental attitude as with less warmth and with high restrictive attitude as compared to normal group who perceived parental attitude with warmth, acceptance and high restrictive attitude. The results of present study reflect high parental restrictive control and less warmth as factors of individual's mental health problems supported by literature (Baumrinds, 1968, Hart et al., 1997; Barber & Harmon, 2002; Youhidat et al., 2005; Barber, 1996, Kendel & Davies ,1982;. Parker, 1981; Hafner, 1988; Parker et al., 1982, Rohner et al., 2005; Takafumi & associates, 2005).

The results of the present research are also supported by Dwairy's finding's (2006) that authoritarian parenting within an authoritarian culture does not harm the adolescents' mental health as it does within the Western liberal societies but inconsistency in parenting could cause harm to adolescents' mental health.

On the whole results indicate psychiatric population as well as normal respondents both groups perceived their parents more restrictive controlling. Results clearly indicate normal respondents perceived their parental attitude restrictive but with highly warmth and acceptance, on the other hand psychiatric patient perceived highly restrictive with less warmth/accepting parental attitude. These types of parental attitude indicate inconsistency in parenting attitude. This inconsistency in parenting involve in the development of the psychopathology. In essence perceived parental restrictive attitude with less warmth and affection in childhood is detrimental factor involved in psychopathology of adolescence.

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A COMPARATIVE STUDY OF MARITAL ADJUSTMENT AND SELF ESTEEM AMONG HUSBANDS OF WORKING AND NON-WORKING WIVES

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ABSTRACT

The present study investigates the difference in the level of Marital Adjustment and Self-esteem between the husbands of working and non-working wives. After detailed literature review following hypotheses have been formulated, (1) husbands of working wives would have lower level of marital adjustment as compared to the husbands of nonworking wives (2) husbands of working wives would have low self esteem as compared to the husbands of nonworking wives. The sample of the present research consisted of 55 married males with an age range of 30-45 years and qualification of at least graduation. Marital Adjustment was measured by the Dyadic Adjustment Scale (DAS) (Spanier, 2001), and Self Esteem was measured using the Rosenberg Self esteem Scale (Rosenberg 1965). "t test" was used to compute the difference and results showed that there is no significant difference in the level of marital adjustment (t = .944, df = 53, p>.05) and self esteem (t = 1.481, df = 53, p>.05) between the husbands of working and non working wives.

INTRODUCTION

As wives enter the labor market, both men and women have had to redefine their roles within their marriages. Work and marriage are two very important parts of adult's lives, and sometimes the demands of one can interfere with the demands of the other. Work-spouse conflict occurs when the pressures from one role makes it hard to be successful in the other role. In Pakistan, the

participation of married women in the labor force has increased dramatically and contemporary social changes (e.g., increased education and economic conditions) promise that this trend will continue. Torres (1997) reported that numerous studies have focused on two-job families and the stress experienced by working women and their dependent children. Despite the fact that having a working wife will invariably alter the life-style of most husbands, research on the effects of wife's employment on men has been neglected (Perrucci et al., 1978).

Early research on the effects of women's employment on quality of marital relationship suggested that wives' employment lowered marital quality, especially among men (Burke & Weir, 1976) and couples where the wife entered the workforce out of economic necessity (Orden & Bradburn, 1969). Later studies, however, found no effect of women's employment on the psychological distress (Roberts & O'Keefe, 1981) that in turn, may affect the marital quality. Other research has concentrated on identifying the pathways through which wives' employment may affect marital quality (Vannoy & Philliber, 1992; McHale & Crouter, 1992).

Sometimes the hectic demands and schedules of couples' work life have also limited the amount of time and energy they have to devote to family life, and consequently have influenced the quality of family life. Stress and work demands often have negative effects on family relationships, psychological well-being and marital satisfaction (Sears & Galambos, 1992). In addition, the increasing diversity of work schedules have also meant that couples has fewer opportunities to spend time together as a couple or family (Presser, 1995).

The case can be different as Hood (1983) stated that wives' employment was associated with more equal sharing of child care, more shared interests and spouse's greater interest in each other as individuals and confidants, whereas, this was not the case when compared with traditional families wherein women were non-employed and men were the only breadwinners of the family. However, it also depends upon how the husband perceives the necessity of his wife's employment, and how much wife's aims and goals of life are important to husband.

Sears and Galambos (1992) examined whether women's work stress affects husbands' perceptions of marital adjustment (i.e., crossover). While they find that wives' work stress lowers women's perceptions of marital adjustment (i.e., spillover), they found little or no evidence to link women's work stress to husbands' marital adjustment. Where as, Rogers (1999) found that that increases

in wives' income do not significantly affect either husbands' or wives' perceptions of marital discord.

Changes in traditional sex roles (e.g. working wives), according to Rosenfield (1980), imply a relative loss of power for males. Loss of power in turn can result in a loss of self-esteem. Furthermore, powerlessness and low self-esteem have been associated with higher levels of psychological stress (Wheaton, 1980). Effects may differ in younger males, as Markides and Vernon (1984) also found the effects of traditional sex role attitudes to be age specific. Specifically, traditional sex role attitudes had negative psychological effects on middle-aged and older men, but had no effect on the younger males. Gonzalez (1988) found that Chicano males, like the males in study of Keith et al. (1981), were not threatened by their wives' accomplishments.

Kessler and McRae (1982) found that when the wife is employed, men manifest more symptoms of psychological distress. However, the authors suggest future research should include measures of division of labor in household tasks, in order understand the dynamics at work clearly. Burke and Weir (1976) speculate that men who participate in "feminine" household tasks will experience decreased psychological well-being because these tasks are of low status compared to their normal work tasks. Keith and Schafer (1980) found married men, whose wives worked outside the home, had greater involvement in "feminine" tasks, which in turn relates to greater depression. The effects, however, found to be benign. Looking at dual career marriages, Stanfield (1985) concludes dual careers are stressful for both partners.

Research specific to the effect of wife's employment status on Pakistani males is negligible. Increasing education and industrialization, along with the reality that in today's economy a second income is not an option but a necessity, resulted in an increase in women's participation in the labor force. Little attention has been given to the effect wife's labor force participation has on traditional male/female family roles and the effect working wives have on males. Even though women appear to benefit when they participate in a "man's" world of paid employment, men should not be expected to experience the same level of comfort in cross-sex tasks. Therefore, it cannot be assumed that the effects of wife's labor force participation have the same psychological effect on both spouses.

METHOD

Sample

The present research is based on a sample of 55 married men, (spouses of working wives= 24, spouses of non-working wives=31). The age of the subjects ranged from 30 years to 45 years. The duration of marriage was at least 2 years. Their minimum educational level was graduation.

Measures

1. Variable of marital adjustment was measured by Dyadic Adjustment scale (DAS; Spanier, 2001). The DAS was developed to assess the quality of marital relationships. It is a 32-item self-report scale that generates a score on overall adjustment and four subscale scores for consensus, satisfaction, cohesion and affectional expression. Respondents use a Likert-type scale to indicate extent of agreement or frequency of each item. Higher scores reflected a higher level of marital adjustment.

2. Self esteem was measured using the Rosenberg Self esteem scale (Rosenberg, 1965), which consists of 5 positively worded items and 5 negatively worded items. Each item is rated on a 5 point scale. Scores greater than 20 indicates generally positive attitudes towards the self, the scores below 20 indicate generally negative self-attitudes

Procedure

The present study consisted of a sample of 55 working married males. Participants were selected form different organizations including schools, banks and hospitals. They were matched on the basis age, duration of marriage, and educational level. Formal consent was taken from research participants. The purpose of the study was explained and confidentiality assured. As the administration of the questionnaires required approximately 15-20 minutes, the subjects were requested to spare this time in order to complete the two questionnaires. The subjects were then briefed about the two questionnaires, and asked if they have any difficulty in understanding the statements. The subjects first completed the personal information and then the Dyadic Adjustment Scale, which was followed by administration of Rosenberg Self esteem Inventory.

Statistical Analysis

Statistical analysis was conducted using the SPSS program. "t test" was computed to examine difference in level of Marital Adjustment and Self esteem between husbands of working and nonworking wives.

Operational Definitions of Various Terms

Self Esteem

Self esteem is the level of global regard one has for the self, or how well a person "prizes, values, approves, or likes him or herself".

Marital Adjustment

Marital Adjustment (comprised of four subscales) is defined as ***Dyadic Consensus:*** the extent of agreement between partners on matters important to the relationship, such as money, religion, recreation, friends, household tacks and time spent together; ***Dyadic Satisfaction:*** the amount of tension in the relationship, as well as the extent to which the individual has considered ending the relationship. High scores on Dyadic Satisfaction indicate satisfaction with present state of relationship and commitment to its continuance; ***Affectional Expression:*** the individual's satisfaction with the expression of affection and in the relationship; ***Dyadic Cohesion:*** the common interests and activities shared by the couple.

RESULTS

Table 1
Showing the difference in the level of Marital Adjustment and Self Esteem between Husband's of Working and non working Wives

Variables	N	t	df	P
Marital Adjustment	55	.944	53	>.05
Self Esteem	55	1.481	53	>.05

DISCUSSION

Results of current study reflect that there is no significant difference in the level of Marital Adjustment between the spouses of working and nonworking wives ($t = .944$, $df = 53$, $p>.05$). Edification and competition in new trends of

world have changed people's perception regarding the stereotypical roles of both, males and females. In turn, the approaches and values of community and society are being modified. Consequently, educated women and even their husbands appear unsatisfied with their wives fulfilling only traditional domestic roles. Simultaneously, in our culture women expected to be a good housekeeper not only to satisfy husband and family, but themselves. They usually keep their households on equal priority to their work outside the home. They are able to manage well, both responsibilities. This perfectly played dual role protect their marital life from any kind of danger. Greenstein (1995) further reported that gender ideology moderates the effects of wives hours of employment per week on marital stability. He indicated that hours employed per week did not have a statistically significant effect on marital stability, for women holding traditional gender ideologies.

The findings of current study are also supported by a study conducted in India (Singh, Thind, & Jaswal, 2006), which is similar to Pakistan in terms of social and cultural values, in this study it was concluded that, sexual dimension of marital adjustment among husbands and wives was unaffected by wives' education level and employment status. Additionally, he has also found that husbands showed no variation on the emotional dimension of marital adjustment with wives' educational level and employment status.

Result of second hypothesis reflects no significant difference in the level of self-esteem between husbands of working and nonworking wives. These results are consistent with the findings of study conducted by Keith et al. (1981) which reported that male self-esteem is independent of involvement of household tasks and wife's occupational status.

However, the results of this study are not consistent with the researches given in the literature review. The results of researches in literature review have mostly found that married men whose wives worked outside the home have to participate actively in household tasks and because these tasks are considered lower level tasks it results in a loss of self-esteem for men. In Pakistani society, there is availability of domestic servants so the responsibility of household task is usually not on them. Since the sample of current study comprised of men belonging to upper middle or upper class and could afford domestic servants, they had no pressure to participate in household tasks. Secondly, since joint family system is common in Pakistani society mostly other women of house, shares household chores whether they are employed or not.

Education and employment of women has significant implications not only for their own lives but also for all the lives and relations linked with them.

Their being educated and employed brings about tremendous qualitative change in their own and their husbands' marital adjustment. In Pakistani culture mostly only those women work whose husbands allow them to work, hence husbands included in our sample were mostly men who had no objections to their wives being employed. Therefore, there was not a significant difference found in marital adjustment and self-esteem between husbands of working and non-working women.

In conclusion, it seems that most of the difficulty couples have in making a good marital adjustment arises from their basic personality and conditioned habits and attitudes. There are, for example, many adequate and satisfying ways for a couple to handle their money, organize their household routines, plan their social activities and work timings but the majority of problems in husband-wife relationships are, basically personality problems, essentially conflict situations between a husband and wife and more, so -called money, sex, social, wife's employment or unemployment or other types of problems are only symptomatic of the underlying problem.

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DEPRESSION IN THE IRANIAN HEALTH EMPLOYEES AND ITS CORRELATION WITH SELF-ESTEEM AND SOCIAL SUPPORT*

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ABSTRACT

Depression is one of the most common mental disorders that is characterized by depressed mood, anhedonia, hopelessness, lack of energy and concentration. These symptoms cause impairments in social, individual and occupational functioning. Health workers are among the most vulnerable groups to depression as a result of their exposure to patients' suffering and health problems. The present study was designed to explore the level of depression and its associated psychosocial and occupational factors in health workers in Mashhad, Iran. The present study is a descriptive-analytic and cross-sectional research that has been carried out in Mashhad, the second largest city in Iran that is located in the north-east of the country with more than 3 million populations. The statistical population included the health workers in 31 heath care centers of Mashhad and hoome. The sample was 279 health workers who completed the questionnaires. The instruments of research were a demographic and personal questionnaire, Beck Depression Inventory, Cassidy social support scale, and Eysenk self-esteem scale. Collected data were entered to SPSS and were analyzed by appropriate descriptive and analytic statistical tests including chi-square. Results indicated that 67% of workers did not have depression and 23.9% had some degrees of depression. In this study, the rate of depression did not have a significant relation with sex

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and marital status of workers. There was a significant relation between levels of depression and quality of personal relationships with supervisors, colleagues and family members. Satisfaction from work environment, transportation and attitude of official workers also had a significant relation with depression. Results showed that depression has a high rate in health workers. High levels of social support and self-esteem were associated with lower degrees of depression. Therefore improving these factors could be used for decreasing depression.

INTRODUCTION

Depression is the 4th urgent health problem in the world based on the WHO report. Depression is characterized by depressed mood, anhedonia, hopelessness, lack of energy and concentration. These symptoms cause impairments in social, individual and occupational functioning (Akiskal, 2005). Depression in employed people is associated with loss of work output and increase in work absence (Putnam & McKibbin, 2004). In the jobs with high stress levels, depression and anxiety are more frequent in the employers (Kliszsz, Nowicka – Sauer, Trzeciak, Sadow, 2004). Health workers are among the most vulnerable groups to depression as a result of their exposure to patients' suffering and probable violence and aggression in the workplace and also doing concurrent physical and affective work. Studies in the nurses, hospital and health care workers show that high workload (Baba, Golperin, & Lituchy, 1999; Greenglass, & Bruke, 2001; Estryn – Behar, Kominski, Peigne, Bonnet, Vaichere, Godlin et al., 1990; Revicki, & May, 1989), low social support (Baba, Golperin, & Lituchy, 1999; Sibney, 1993), exposure to workplace violence and aggression (Schat, & Kelloway, 2003; Quine, 1999; Schat, & Kelloway, 2000), working in the night shifts (Skipper, Jung, Coffey, 1990) high levels of demanding (Greenglass, & Bruke, 2001), poor work organization (Revicki, & May, 1989), hardship and ambiguity of the work (Revicki, & May, 1989) cause the high levels of psychosocial strain. This strain could be a precipitating and a maintaining factor for the depression in the employers. Tselebis found a direct relation between sense of coherence, burnout and depression in nursing staff (Tselebis, Moulou, & Ilias, 2001). In another research among hospital workers, stress at work and job strain related to work overload were associated to more mental disorders in the workers (Estryn – Behar et al., 1990). Low level of social support is another important risk factor for depression in the nurses and hospital workers like general population. Social support includes sympathy, encouragement and

support of colleagues, supervisors, friends and primary family members. Many studies indicated high social support of workers as associated with low levels of job stress (Prior, 2001; Anderson, 1976; Dick, 1986; Abu Alrub, 2004; Chu, Lee, Hsu, 2006), burnout (Anderson, 1976; Dick, 1986; Abu Alrub, 2004; Sundin, Hochwalter, & Bildt, 2007; Jenkines, Elliott, 2004), and depression (Akiskal, 2005; Baba, Golperin, & Lituchy, 1999; Sibnay, 1993). Self-esteem that means the loving and respecting of self is another mediator in causing depression (Burnard, Hebden, & Edwards, 2001). Low self-esteem is related to depression (Battle, 1980; Rawson, 1992; Walters, & Kendler, 1995; Kendler, MacLean, Neale, Kessler, Health, Eaves, 1991) also to substance and alcohol use disorders (Young, Wrech, & Bakema, 1989; Botvin, 1986; Allendorf, Sunseri, Cullinan, & Oman, 1985; Perez, Padilla, & Ramirez, 1980).

Underestimation of personal and professional identity increases the vulnerability of worker to job stress and also to burnout and depression (Fothergill, Edwards, & Hannigam, 2000; Karanikola, Papathanassoglou, & Giannakopoulou, 2007). In another research by Lee and Kim (2006) 40% of nurses were depressed and the most important risk factors for depression included psychological and somatic fatigue and anger. In this study depression and age had a negative relationship. Malakooti et al.* in a research on hospital workers in Zahedan, Iran found a significant relationship between workload and depression. Depression was higher in clinical than official workers and did not have a relationship with sex (Malakooti, 1373).

To summarize, depression in the health workers has many adverse consequences like loss of job satisfaction (Greenglass, & Bruke, 2001), reduction of work efficiency (Putnam & McKibbin, 2004; Greenglass, & Bruke, 2001), work absence (Putnam & McKibbin, 2004; Baba, Golperin, & Lituchy, 1999), carelessness, low self-esteem, lack of empathy, and critical style of relationship with patients.

Based on these findings about the importance of depression in health workers, the present study was designed to explore the level of depression and its associated psychosocial and occupational factors in health workers in Mashhad,

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Iran. Mashhad, one of the most populated cities of Iran, is located in the north – east of the country.

METHOD

Sample

The present study is a descriptive-analytic and cross-sectional research that has been carried out in Mashhad, the second largest city in Iran with more than 3 million populations. The statistical population included the health workers in 31 heath care centers of Mashhad University of Medical Sciences. The sample was 279 health workers who completed the tests.

Measures

The instruments of research were

a) a demographic and personal questionnaire
b) Beck Depression Inventory
c) Cassidy social support scale
d) Eysenk self-esteem scale

Inclusion criteria for the study were being an active employer of health care centers in Mashhad at the time of research and willingness to participate in the study. Exclusion criteria included history of using psychoactive substances, severe financial problems, being handicapped, mental or somatic disability in primary family members and history of intense emotional disturbances and stressors in past 6 months (death of a family member, divorce, accidents).

Collected data were entered to SPSS and were analyzed by appropriate descriptive and analytic statistical tests including chi-square.

RESULTS

Results indicated that 67% of workers did not have depression and 23.9% had some degrees of depression. Mild, moderate and severe depression was seen in 23.3%, 5.7% and 3.9% respectively.

Table1
Frequency of depression in health workers based on sex, age and marital status

		Depressed		Non depressed		X2	df	p
		N	%	N	%			
Sex	man	19	26	54	74	2.49	3	0.47
	woman	73	35.4	133	64.6			
Marital status	single	11	26.2	31	73.8			
	married	80	34	155	66	2.78	6	0.83
	others	1	50	1	50			
Age	20-29	32	36.4	56	63.6			
	30-39	24	28.57	60	71.43	2.80	6	0.83
	above 40	36	33.64	71	66.36			

Depression was seen in 35.4% of women and in 26% of men. There was not a significant difference between rates of depression in 2 sexes ($P=0.47, df=3, x^2=2.49$). In the assessment of depression in different marital situations 26.1% of single people, 34% of married people and 50% of other groups had depression. There was not a significant difference between 3 groups ($P=0.83, df=6, X^2=2.78$).In the present study workers were divided to 3 groups :20-29 ,30-39,40 and above. The most severe form of depression was seen in the ages of 20-29, and the lowest level was found in the ages of 30-39,but there was not a significant difference between 3 groups in terms of depression ($p=0.83, df=6, X^2=2.80$; Table1).

Table2
Frequency of depression in health workers based on self-esteem and social support

		Depressed		Non depressed		X2	df	p
		N	%	N	%			
Social support	low	12	60	8	40			
	moderate	40	42.55	54	57.44	23.48	6	.01
	high	40	24.25	125	75.75			
Self-esteem	low	2	100	0	0			
	moderate	27	45.77	32	54.23	30.88	6	.01
	high	63	28.9	155	71.1			

Scores of Cassidy social support scale were divided to 3 levels of low, moderate and high. People with low social support compare to other 2 groups had the highest level of depression (60%). There was a significant negative relation between levels of depression and their social support ($p=0.000, df=6, X^2=23.48$; Table 2).

Scores of Eysenk self-esteem scale were divided to 3 levels. Most of workers had high level of self-esteem that 71.1 % of them had no depression and 28.9% reported some degrees of depression .A significant relation between level of self-esteem and depression was found($p=0.000, df=6, X^2=0.88$; Table2).

Table3
Frequency of depression in health workers based on quality of relationship with supervisors, colleagues and family members

		Depressed		Nondepressed		X2	df	p
		N	%	N	%			
With supervisors	poor	8	61.5	5	38.5	18.9	9	.03
	moderate	30	40.5	25	59.5			
	good	22	20.75	84	79.25			
	Very good	32	25.5	73	45.5			
With Family members	poor	5	100	0	0	20.40	9	.01
	moderate	12	57.1	9	42.9			
	good	33	32.7	68	67.3			
	Very good	42	27.6	110	72.4			
With colleagues	poor	1	33.3	2	66.7	18.29	9	.03
	moderate	10	71.4	4	28.6			
	good	52	36.9	89	63.1			
	Very good	29	24	92	76			

The relationship between workers and supervisors, colleagues and family members were classified to 4 levels of poor, moderate, good and very good. There was a significant relation between levels of depression and quality of personal relationships with supervisors, colleagues and family members (Table3).

Table4
Frequency of depression based on satisfaction from welfare services, transportation, income and attitude of official workers

		Depressed		Nondepressed		X2	df	P
		N	%	N	%			
From welfare services	Totally dissatisfied	59	66.3	30	33.7			
	Partially dissatisfied	53	62.4	32	37.6			
	Indifferent	45	72.6	17	27.4	8.73	12	.072
	Partially satisfied	23	69.6	12	35.0			
	Totally satisfied	8	88.9	1	11.1			
From work environment	Totally dissatisfied	7	53.8	6	46.2			
	Partially dissatisfied	21	48.8	22	51.2			
	Indifferent	7	58.3	5	41.7	32.90	12	.001
	Partially satisfied	96	67.6	46	32.4			
	Totally satisfied	56	81.2	13	18.8			
From transportation	Totally dissatisfied	43	63.2	25	36.8			
	Partially dissatisfied	19	57.6	14	42.4			
	Indifferent	35	59.3	24	40.7	21.64	12	.04
	Partially satisfied	78	78.7	19	21.3			
	Totally satisfied	20	66.7	10	33.3			
From income	Totally dissatisfied	79	61.2	50	38.8			
	Partially dissatisfied	42	72.4	16	27.6			
	Indifferent	19	70.4	8	29.6	8.71	12	.72
	Partially satisfied	43	70.5	18	29.5			
	Totally satisfied	4	100	0	0			
From attitude of official workers	Totally dissatisfied	12	54.5	10	45.5			
	Partially dissatisfied	27	65.9	14	34.1			
	Indifferent	15	51.7	14	48.3	11.57	12	.48
	Partially satisfied	102	04.4	65	30.6			
	Totally satisfied	31	77.5	9	22.5			

Satisfaction from welfare services and income were divided into 5 levels and a significant relation was not found between them and depression. However, between depression and satisfaction from work environment, transportation and attitude of official workers significant relationship was found (Table4).

DISCUSSION

In the present study 23.9% of health workers had levels of depression that did not have a relation with age, sex and marital status. High levels of social support and self-esteem, better relation with supervisors, colleagues and family members, satisfaction from work environment and transportation were associated with lower degrees of depression. Health workers' satisfaction from welfare services, their income and attitude of official workers did not have a significant relation with their depression.

The rate of depression in our study (23.9%) was lower than this rate in the study by Lee et al who reported that% 40of nurses were depressed (Lee & Kim, 2006). Probably the reason is related to differences in the nature of work for the health workers and hospital nurses. Health workers mostly have healthy clients and perform screening for some disorders, also they follow up caring of pregnant women and development of children and educate people about professional health, but they do not have very ill patients like nurses. So, health workers might have less stress in the work environment compared to nurses working in the hospitals.

In the present study the rate of depression was not significantly different in men and women. This finding is consistent with results of Malakooti's * research. In contrast to general population, we did not find higher levels of depression in women as compared to men. This result might be explained by characteristics of these women such as having a job and independent income, better coping mechanisms because of their higher levels of education. In addition, their communication with different people in society might increase their ability in using problem-solving strategies.

In this study the rate of depression did not have a significant relation with marital status of workers, although being single has been recognized as a risk factor for depression especially in men (Akiskal, 2005). It seems that having a job and not being alone because of their work might be the reason for the difference of this result and findings in general population.

Reports about the relation of depression and age are different. In the study by Lee depression of nurses decreased in higher ages (Lee & Kim, 2006). In contrast, Akiskal (2005) suggests that depression is more common in the ages below 45. The present research found no relation between the rate of depression and age.

In our study, higher social support was related to lower levels of depression in health workers. This result is consistent with findings in other studies (e.g., Baba, Golperin, & Litschy, 1999; Sibney, 1993). It is obvious that higher social support improves coping mechanisms and buffers the adverse effects of psychosocial stresses.

Self- esteem is a basic need and is located at 4th level of Maslow's hierarchy of human needs .In the present study self-esteem had a negative

relation with depression. Low self-esteem results to inadequate sense of self-worth and self-respect and could be a cause for burnout and a risk factor for depression in vulnerable people (Schroevers, Ranchor, & Sanderman, 2003). Therefore in this study good relationship between workers and supervisors, colleagues and family members had a significant impact on decreasing depression in health workers that indicates the important role of high social support in preventing depression. These results are consistent with findings in other studies (Akiskal, 2005; Baba, Golperin, & Lituchy, 1999; Sibney, 1993). Good relationships with family members, colleagues and supervisors increases the social support of person and results to lower levels of burnout and depression.

In the present study satisfaction from work environment had a significant relation with lower degree of depression. Dissatisfaction from work environment including lack of personal space, high level of noise, inappropriate temperature of workplace, safety dangers, exposure to chemical substances or dangerous radiations could be a chronic stressor based on the model of Hanse Selich. In long term these stressors might have an important role in causing mental disorders (Akiskal, 2005).

We found a significant negative relation between satisfaction from transportation facilities and degree of depression. Many of health care centers are far from the city, so problem in transportation system is considered very stressful for workers and could be a mediating factor for depression (Akiskal, 2005).

In the present study, satisfaction from attitude of official workers had a significant negative relation with depression. Appropriate behaviors of official workers and responding to workers' requests are important factors in preserving self-esteem of workers and sense of having good social support and in turn can decrease the rate of depression (Akiskal, 2005; Baba, Golperin, & Lituchy, 1999; Sibney, 1993).

In this research, we did not find a relation between depression of health workers and satisfaction from their income and welfare services. This finding suggests that depression is mostly related to psychological and cultural issues rather than financial problems. Therefore, it seems that management strategies are more important than economic status of an organization for workers.

In summary, findings of this study in an extensive area like Mashhad are mostly consistent with previous studies. We hope that results of this research

could be helpful in improving health status and efficiency of workers. The limitation of our study is that measurements were self-reports .We did not have sufficient resources to have interviews with all of the health workers. Further studies should include interviewing with the workers.This study was supported by a grant from Mashhad University of Medical Sciences.

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CONCEPTUAL ABILITY ADVANTAGES IN PATIENTS OF SCHIZOPHRENIA WITH PARANOID IDEATION

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ABSTRACT

Reasoning and planning deficits of conceptual ability are characteristically related to the diagnosis of schizophrenia, however a broad range of literature suggest the advantage of those with paranoid delusions over other patients of schizophrenia. To determine the relationship of paranoid ideation with the conceptual ability, sample of 52 patients diagnosed as having schizophrenia, with age of 20-50 years and minimum education of intermediate, was assessed on the 'similarities' subtest of Wechsler Adult Intelligence Scale-Revised (Wechsler, 1981), and 'Paranoia' scale of Personality Assessment Inventory (Morey, 1991). Results reflect significant relationship between the two variables, with paranoid ideation explaining 12% variation in the scores on the measure of conceptual ability. Results were discussed with reference to the characteristic style of those with high paranoid ideation.

INTRODUCTION

Schizophrenia is characterized by a number of cognitive deficits, however, theoretical and empirical evidence support the notion of a distinct taxonomic entity in patients with schizophrenia with symptom configuration of predominant paranoid delusions (Zalewski, Johnson-Selfridge, Ohriner, Zarella, & Seltzer, 1998). On various neuropsychological tasks and measures of cognitive functioning, patients with paranoid schizophrenia exhibit superior performance as compared to patients with non-paranoid schizophrenia (Rund, 1983; Langell et al., 1987). Specifically, the disturbance in the faculty of abstract thinking and conceptual ability found to be associated with the diagnosis of schizophrenia.

Bellak et al. (1973) has identified ability to conceptualize i.e., the use of abstract and concrete modes of thought in manners appropriate to the situation, among one of the three constituents of thought processes. Individuals with schizophrenia are supposed to be unable to reason logically. Arieti (1955) devotes considerable attention to schizophrenic tendency to retreat from reason, based on concept of Von damarus (1944), "The Predicate thinking". According to the concept, the patient with schizophrenia reason logically, because he accepts the identity on the basis of identical predicates in contrast to usual principle of using identical subjects to justify identity. Weiner (1966), discusses that the greater the extent to which predicate logic violates realistic consideration, the more widely it manifests, the longer it persist; and the more it is refractory to controvert evidence, the stronger the likelihood of schizophrenic thought disorder. The over generalization of thinking often result in confabulation. Recent research has confirmed that patients with schizophrenia tend to demonstrate logical reasoning deficits in a wide range of tasks (Glicksohn, Alon, Perlmutter, & Purisman, 2001; Goel, Bartolo, St. Clair, & Venneri, 2004). The thought processes of patients with schizophrenia are characterized by concreteness, and lack of ability to think symbolically (Arieti, 1955; Goldstein, 1944).

According to Elias (2004), the presence of negative symptoms in schizophrenia has been found to be associated with poor performance on the Wisconsin Card Sorting Task (Veruganti, Heslegrave, & Awad, 1997), which is thought to assess general reasoning ability (Lezak, 1995). Patients seem to have both difficulty abstracting concepts and make perseverd responses to incorrect responses. Fey (1951) also found schizophrenia patients tend to demonstrate deficits on the Wisconsin Card Sorting Task of set shifting, response to feedback, and abstraction. Fey found that even relatively young and well-integrated subjects, performed poorly than normal, because of their poor conceptual level. Kay (1982) conducted a study to evaluate that schizophrenic conceptual disorder derives from abnormal verbal encoding, geared to salient affective and physical cues at the expense of conceptual attributes. A fundamental deficiency in processing of cues essential for conceptual operations, accordingly, seems to underlie the conceptual dysfunction in schizophrenia.

Goldstein (1944) emphasized concreteness of thought an indication of loss of capability for abstraction as a major symptom of patients of schizophrenia, which appeared also, as he observed, in people who suffered brain injury. Kasanin (1964) relates psychopathology to the concept of physiognomic

thinking (which either related to the concept of failure to progress, or actual regression to an earlier state). He saw physiognomic thinking as the earliest stage in the development of thought, one in which a child projects himself into objects, which he thus animates. A subsequent stage is the development of concrete thinking; the final stage is abstract or categorical thinking. He postulated that the schizophrenic, either because he has failed to progress or has regressed, tends to show more of the first two stages in his thought processes.

Besides well-established findings of disturbance in conceptual ability of patients with schizophrenia, as stated earlier, paranoid and non-paranoid differences appeared remarkable in many areas of cognitive functioning. While discussing the Fried and Aggasi's (1976) suggested paradoxes of paranoia, Rudnick (2003) specifies four paradoxes including a) paranoid system of thought is logical, consistent, even sometimes remarkable, b) it is supported by accurate perception, c) it is grounded in particular basic assumptions that do not seem inferior to others, and may even be similar to assumptions dominant in other cultures, d) these basic assumptions are integrative for the paranoid system of thought which thus become especially coherent. These paradoxes according to Rudnick thus demonstrate that central faculties are not flawed in paranoia and might even be superior.

Paranoia has not been consistently associated with many specific neuropsychological abnormalities. However, evidence supports three broad types of mechanism that might be involved in delusional thinking in general and paranoia in particular: anomalous perceptual experiences, abnormal reasoning, and motivational factors. Although general reasoning ability seems to be unaffected, there is strong evidence that a jumping- to-conclusions style of reasoning about data is implicated in delusions in general, but less consistent evidence specifically linking paranoia to impaired theory of mind (Bentall & Taylor, 2006).

While tested on measure of reasoning ability and executive function, Bornstein et al., (1990) found paranoid participants as better performer than non-paranoid counterparts. They performed fewer perseverative errors. Rosse, Schwartz, Mastropaolo et al. (1991), while reporting the findings in favor of paranoid group, state that paranoid group sorted more categories than the non-paranoid groups.

However, when compared with normal and psychiatric comparison group paranoid patients demonstrate significantly greater numbers of perseverative responses on the WCST (Butler, Jenkins, Sprock, & Braff, 1992). Further when the two diagnostic group of schizophrenic patients, that is, paranoid and non paranoid were compared on WSCT, the performance of the schizophrenic patients was poor compared with that of normal control subjects; furthermore, paranoid patients made a higher number of perseverative errors than did non paranoid patients (Abbruzzese, Ferri, & Scarone, 1996).

Magaro (1981) however, assert that pattern of paranoid and non-paranoid differences on various tests indicates that paranoid conceptual capacity is more intact, personality integration more developed and perceptual field more differentiated than in non paranoid schizophrenics. Non-paranoid seems too confused to organize stimuli and react to them and displays a global approach to stimuli with less developed conceptual abilities. Seltzer et al. (1997) also report significant differences between paranoid and undifferentiated patients of schizophrenia on similarities subtest of Wechsler Adult Intelligence Scale-Revised; and on Wisconsin Card Sorting Test.

Keeping in view the above presented literature it can be assumed that patients with paranoid ideation would have specific conceptual ability advantages, thus it was hypothesized that scores on paranoid ideation would predict performance on task related to perceptual organization in sample with schizophrenia.

METHOD

Participants

60 patients with schizophrenia diagnosed according to the criteria of the fourth addition, text revision of Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000), by their respective psychiatrists and clinical psychologists, irrespective of sub classification; recruited from the inpatient as well as outpatient population of psychiatric departments of various hospitals / psychological clinics / Institutes / organizations of Karachi, Pakistan. These diagnosed patients were administered a semi structured clinical interview form, also using the DSM-IV TR criteria by the researcher to confirm the diagnosis, and establish inclusion and exclusion criteria. The participant's final diagnosis was determined by a consensus meeting

between the researcher, respective psychiatrist / psychologist and an expert clinician's opinion evaluating the semi structured clinical interview form. Care has been taken not to include the patients with any concurrent condition affecting a) neuropsychological functioning (e.g., substance abuse, head trauma, etc.); b) comorbidity including Personality disorders / Mental Retardation; and c) General medical condition; (Axis II & Axis III disorder) in the sample. All patients with schizophrenia were on medication, either on atypical or typical antipsychotic drugs, and some with anticholinergic medication.

The ages of participants was ranged from 20 years to 50 years with the mean age of 31.41 years. The entire sample belonged to middle socioeconomic class, and the minimum education level was Matriculation (ten years of education). The upper and the lower socioeconomic classes were not included in the sample due to their possible educational as well as environmental advantages / disadvantages in order to ascertain the homogeneity in the sample.

Measures

Semi Structured Interview Form (Case History Sheet)

This qualitative measure which usually takes 20- 30 minutes to be administered is designed by Institute of Clinical Psychology, University of Karachi, based on the criteria of Diagnostic and Statistical Manual for mental disorders as well as other details necessary to screen out the diagnosis.

'Paranoia' Subscale of Personality Assessment Inventory (PAI; Morey, 1991)

The Personality Assessment inventory subscale of paranoia has been selected for this research. Paranoia subscale is a 24 item scale of PAI, which can be used in Clinical / Diagnostic situations to assess a wide range of paranoid beliefs and behaviors (PAI; Morey, 1991). This scale is scored on a 4 point (0 to 3) likert scale with scores ranging from 0 to 72. Higher scores reflect increased level of paranoia.

Similarities subtest of Wechsler Adult Intelligence Scale-Revised (WAIS-R; Wechsler, 1981):

Wechsler Adult Intelligence Scale-Revised (WAIS-R) is a widely used measure of Intelligence, having promising reliability and validity. The similarity

subtest consists of 13 paired items, and requires subjects to verbalize the similarity between the items of each pair. The test is supposed to be a measure of associative thinking, memory and comprehension. It is also associated with abstraction and conceptual abilities. Conceptual abilities as defined by reasoning, planning, and high order mental processes, were assessed by "Similarities" subtest of WAIS-R, as the test is supposed to be a measure of associative thinking, abstraction and conceptual abilities (Zimmerman & Woo-Sam, 1973).

Procedure

Consent was obtained from the authorities of Psychiatric departments of hospitals, as well as from patients and their caregivers, illustrating the nature of the study and the need to do the studies. Authorities were presented the tests used in the study before obtaining the consent. Participants were informed that the information they provided will be kept confidential, and their results will only be used for research purposes. Their right to leave the test if they feel uncomfortable was discussed. After establishing rapport with the participants, a complete diagnostic interview was administered using the semi-structured interview form for psychological assessment designed by the Institute of Clinical Psychology, University of Karachi. After administration of semi structured Interview form, the Personality Assessment Inventory subscale for Paranoia, and following it the Wechsler Adult Intelligence Scale-Revised (Wechsler, 1981) was administered. Ethical procedures were maintained throughout the research. The objective of the entire study, procedures followed and material used were reviewed and approved by the Board of Advanced studies and research (B.A.S.R), University of Karachi. Informed consent was obtained and participants were provided with debriefing.

Statistical Analysis

The regression analysis was conducted to examine the relationship of paranoid ideation with the measures of conceptual ability, that is, similarities subtest of WAIS R.

RESULTS

Table 1
Summary of Linear Regression with Paranoid Ideation as Predictor of Conceptual Ability in sample with Schizophrenia

Predictor	R	R^2	Adjusted R^2	Durbin Watson	F	p	df
Paranoid Ideation	.304	0.092	0.077	2.013	5.907	.018	1, 58

Table 2
Summary of Coefficients

Model	Un standardized Coefficients		Standardized Coefficients	t	P
	B	SE	Beta		
Constant	6.537	2.521		2.592	.012
Paranoid Ideation	0.160	0.066	0.304	2.430	.018

DISCUSSION

The conceptual ability in past researches found to be strongly related to the schizophrenia. What the similarities subtest assess is the ability to sequence the ideas and words; and to find the association between both. The paranoid ideation was supposed to demonstrate better performance on conceptual tasks and paranoid were supposed to outperform their non-paranoid variants. Current research is consistent to the previous findings, as paranoid ideation appeared as strong predictor of conceptual ability [R= 0.304, R^2= 0.092, F (1, 58) = 5.907, p< .018].

The Reasoning and planning deficits of conceptual ability are characteristically related to patients with schizophrenia, with reported

demarcation of paranoid due to their distinct patterns. While discussing the paleologic thought of schizophrenic, Arieti (1974), assert that patients adopt such logic because they want to escape anxiety that would be disastrous to the inner self and concept of self. As long as the reality has been interpreted with Aristotelian logic, the person remains aware to the unbearable truth and it thus result in anxiety and panic. However, once he sees things in a different way, with a new logic, his anxiety decrease or changes in character. The new acquired logic thus enable him to see reality as he want to, or which might offer him at least partial pseudo fulfillment of his wishes. Arieti (1974) further wrote that paleological thinking occurs in all types of schizophrenia; however, not all thinking follows paleological modalities. In paranoid especially in incipient cases, patient reverts to paleological thinking only when he deals with his own conflicts and complexes. He retains the capacity to think with Aristotelian logic when he deals with non anxiety arising content. The task at hand in present research was also non anxiety arousing in the sense that it was not ambiguous being verbal, and might not trigger to the patients characteristic danger alarm. Though the results are consistent to the hypothesis, further research with any ambiguous abstract reasoning task might extend the findings.

Besides the nature of the task, the paranoia was thought to be associated with intact logic and reasoning. Landis (1964) while discussing the account of an autobiography of a paranoid patient, assert that the development of emotional and thinking patterns seems quite as logical and rational as those of most normal persons do. Radden (1985) nicely elaborate it that paranoid may be supposed to reason faultily in drawing unjustified conclusions from what they accurately perceive; reflecting their inability to weight the evidence as most people would. Their defect in reasoning might lies in their judgments made on the basis of their experiences; their persecutory delusions may be described as pseudologic in holding unreasonable and unwarranted beliefs towards other, though are supposed to be well grounded. However, Radden further assert that 'some of the paranoid beliefs might be said to be better grounded, in one way, than those of sane person. Paranoid have available to them evidences, from which normal observer's relative insensitivity precludes them. Paranoid hypersensitivity to others allows them access to existing phenomena'. The discussion thus provide clue that the hypersensitivity of paranoid though let them to create a molehill from minor evidences, still they used to provide coherent reasons of what they believe. However, a factor of attention can well observed in all the case built by Radden (as he thought that paranoid is sensitive to those unconsciously displayed attitudes, which most of the time remain unobserved by others because they might be below the threshold of normal sensitivity).

However, besides the role of attention paranoid might be reliably better at conceptual abilities as previous studies too consistently demonstrate similar findings. Seltzer, Conrad and Cassens (1997) found relatively preserved cognitive functioning in paranoid compared with non paranoid schizophrenia, particularly on tests thought to reflect left hemisphere processing of verbal material. Magaro and Chamrad (1983) also reported similar findings and discuss that: "greater conceptual disorganization and reduced left hemisphere advantage in patients with undifferentiated schizophrenia is consistent with the fact that non paranoid schizophrenia compromises the ability to process information in a serial, sequential manner, particularly on tests requiring left hemisphere involvement. Conceptual disorganization may reflect problems with sequencing ideas, words, and associations into coherent discourse, perhaps originating from under-activation of left-hemisphere resources in individuals with undifferentiated schizophrenia. This under-activation is not found to be present in paranoid schizophrenia, when assessed through neuroimaging and neuropsychological studies".

The differences between paranoid and non-paranoid, might be attributable and explainable by the integration theory of Magaro (1974), which considers the difficulty in integrating perceptual and cognitive process, a reason for the common schizophrenic defect (Magaro, 1980). The reliance of paranoids on conceptual process instead of, or say at expense of perceptual ones let them act differently as compared to non-paranoids whose reliance is completely on perceptual processes at expense of conceptual ones, that is, without adequate categorization and classification. The normal functioning demands the integration of both, however, the adaptive functioning relies on the selection of style according to the demands of the task. Magaro asserts that the frequent (but not invariable) finding that paranoid perform more like normal than non paranoid reflects the general advantage of a conceptual rather than a perceptual style in task execution and problem solving (Magaro, 1981).

Magaro (1981) also support his theory with that of McGonaghy's (1960) inference that was in favor that associational patterns usually have two types of deviations. One of which is the strengthened capacity to assign logical meaning to events, and thus this established meaning resist conflicting associations; and the other is the weakened capacity to exclude irrelevant associations, resulting in vague thought processes and is characterized by intuition rather than reasoning, with elusive meaning. The first one according to him is the characteristic of paranoid and second of non-paranoid thought. This view may support the findings of the present study.

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