Aim and Scope

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Self-Perception, Attitude and Reading in Elementary School Students

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The aim of this study was to assess the relationship among self-perception, attitude and reading ability in elementary school students in Ilam, Iran. The relationship among self-perception, attitude and reading ability has been examined in an enormous number of studies. The large numbers of these studies have discovered confirmation for a mutual effects model. In this study 380 elementary school students participated. The researcher employed self-perception, attitude and reading scales. All instruments were back translated from English to Persian and Persian to English. The structural equation modeling was used to examine the relationship between feeling to read (self-perception and attitude) and reading ability in elementary school student. The results showed that goodness of fit in all variables and domain variables.

Keyword: SEM, feeling, self-perception, attitude, reading, achievement, grade, gender

Reading ability is the traditional area of starting school success and advanced school achievement (Perfetti, 1985). Personal experiences in learning to read influence subsequent accomplishment in reading and the progress of reading self-perception (Chapman & Tunmer, 1995). The study shows that students' literacy, which contains reading comprehension and attitude toward reading, fluctuated depending on the background variables for example gender and previous reading activity (Bray et al, 2004).

Reading instructors have developed valid and reliable ways to evaluate self-perception and attitude toward reading. Attitude toward reading plays one of the essential roles in the development and application of stable reading ability (McKenna & Kear, 1995; Mihandoost, 2012d). Negative attitude to read can disrupt the possibility of every reading experience (Mihandoost, 2012c; Villaume & Brabham, 2002). Studies indicated that negative reading attitudes on the part of the students do exist (McKenna, Kear, & Ellsworth, 1995; Mihandoost, 2012a; Schumm, Moody, & Vaughn, 2000) although other studies provide evidence that student reading attitude changes with the background of the reading experience (Worthy, Moorman, & Turner, 1999).

Students self-report indicates that those who believed they were competent enough in the domains of spelling, reading, writing, math, and organization and were able to employ suitable strategies as required (Meltzer, Roditi, Houser, & Perlman, 1998).
Based on the study by Bear and Minke's (1996), a method of "self-perception profile for

third-graders," it was found that the students perceived themselves sufficiently competent to do their schoolwork. Researchers maintain that apparently socially favorable feedback from parents, teachers, friends, and others have been influential on students' self-perception (Kloomok & Cosden, 1994; Mihandoost, 2012b; Rothman & Cosden, 1995). The study by Bandura (1997) indicated that self-perception is stranded in self-efficacy theory. Children appear to take four essential aspects into description when typing literacy self-perceptions. These aspects include achievement, observational comparison, social feedback, and physiological states (Bottomley, Henk, & Melnick, 1997).

Achievement in reading is the important learning activity started by student during the elementary school, and it is an initial factor to success at school. Based on prior researches, important factor that is related to self-perception is reading achievement (Borkowski, Carr, Rellinger, & Pressley, 1990; Henk & Melnick, 1992). Self-perceptions play a central role in learning outcomes (Blom, 2006). Studies show that low achievement has been found to lead to negative self-perceptions (Muijs, 1997). According to Chapman and Tunmer (1997), this approach has been described as a skill development model. Also, self-perception has consequences for their skill development because it is an effort in the context of learning (Swerling & Sternberg, 1994). Furthermore, based on study by Chapman and Tunmer (1997), self-enhancement model recommends that self-perception is a primary determinant of school achievement.

Relationship between self-perception and school achievement is an important assumption in theories of learning and school achievement. The linkages between self-perception and school achievement has been illustrated in a number of studies and theoretical models such as skill development model and self-enhancement model. Skill development model asserts achievement in school causally mains self-perception. In this model, school self-perception is seen as a function of achievement. Although the self-enhancement model holds that a higher self-perception increases higher level of school achievement (Pinxten, Fraine, & Damme, 2010) a number of studies supported the mutual effects of skill development model and self-enhancement model (Marsh, Hau, & Kong, 2002; Marsh & O'Mara, 2008; Marsh, Trautwein, Lüdtke, Köller, & Baumert, 2005). Based on the self-enhancement model, self-perception is a determinant of school achievement, while the skill development model suggested that self-perception is a consequence of school achievement. Furthermore, effect sizes of previous achievement on following self-perception supported skill development models. Moreover, effect sizes of previous self- perception on following achievement supported of self-enhancement models (Guay, Ratelle, Roy, & Litalien, 2010).

In the present study, the researcher focused on examining the relationship between the reading ability, self-perception, and attitude to read across gender and grade in elementary school students in Ilam, Iran. The researcher used the term self-perception to refer to the self-concept. Also in this study the researcher tried to answer two below questions:1. Is there a relationship between self-perception and attitude to read and reading ability? 2. Is there relationship between self-perception and attitude to read and reading ability across gender and grade?

Hypotheses

1. There is a relationship between self-perception and attitude to read and reading ability in elementary school students.
2. There is a relationship between self-perception and attitude to read and reading ability across sex and grade in elementary school students.

Method

Participants

The sample consisted of 380 students (228 male and 152 female) attending 8 schools selected through a stratified procedure participated in the study. All of them were living in Ilam, Iran. Two hundred and eight students were in the fifth year of elementary school (age 10 to 12 years; M age = 11 years), one hundred and seventy two students were in the fourth year of elementary school (age 9 to 10 years; M age = 9.5).

Measures

Prior to the research, English instruments were adapted into Persian language for the students in elementary schools in Iran. The instruments were translated from English to Persian and back translated from Persian to English. A pilot study was conducted to determine the reliability of the Persian version of the instruments. The account below describes self-perception, attitude and reading ability in this study. The researcher used pilot study to determine the reliability of the Persian version of the scales. Finally, these instruments were sent to 10 psychologists to determine their content validity.

Self-perception: Perception of Ability Scale for Students (PASS: Boersma & Chapman, 1992) was used. The PASS includes 70 items relating to feelings about school performance in six basic academic areas include reading, penmanship, satisfaction in school, math ability, confidence, and general ability (each of which encloses 12 items), and Confidence in Academic Ability encloses 10 items. Scores on the PASS can range from 0 to 70. In this research, Cronbach's alpha reliability of the scale was between .76 and .85.

Attitude toward reading: Attitude toward reading scale comprises 20 items that asked the students to rate their reading attitudes. This scale includes two subscales: academic attitude toward reading and recreational attitude toward reading (McKenna & Kear, 1990). The pictures of this scale include different moods from "extremely pleased", to "extremely displease". The score of images will be 4 points for happiest and 1 point for very upset. Marks can range from 20 to 80 points for the whole scale. The internal consistency of attitude scales was measured using Cronbach's Alpha. The Cronbach's Alpha ranged from .74 to .89 (McKenna & Kear, 1990). In this research, Cronbach's alpha reliability of the scale was between .78 and .84.

Reading Scale: Reading scale was made by Woodcock, Mather and Schrank (2004). The two subscales of reading scale include passage comprehension and reading fluency. This study for assessing reading achievement employed two subscales passage comprehension and reading fluency.

The Passage Comprehension includes 47 items. The initial scale consists of symbolic learning. The next items are presented in a multiple-choice format in which the students are supposed to point to the picture represented by a phrase. In the last part, the students read a short text and attempt to find the missing key word which could lead to making sense of the text. The level of difficulty of the items increases as pictorial clues are removed, the passages become longer, the words more complicated and the semantic and syntactic levels become more complex. The Passage Comprehension has a median reliability of .83 for ages 5 - 9, and .88 for adult age groups (Woodcock, et al., 2004). In this study, the Cronbach's alpha reliability for the scale was .89.

Also **reading fluency** consists of 98 items and assesses the student's ability in speed reading. The students answer questionnaire yes or no format. The sentence difficulty increases step by step. Reading fluency has a median reliability of .90 for ages 6 - 19 and .90 for adult groups (Woodcock, et al., 2004). In this research, the Cronbach's alpha reliability for the scale was .91.

Procedure

The research was conducted in a four-week period. Before the study, the researcher met with the school authorities to secure agreement for conducting the research. The agreement letter was contracted from the educational center in Ilam, Iran. In addition, a detailed letter of announcement was sent to each student's home to obtain the parents' agreement for the child to take part in the study. Furthermore, two examiners were invited to work as graduate psychology assistants. They were first taught how to implement the instruments. The teaching lasted 3 days for 15 hour sessions. Finally, when the examiners learned the instruments, they used it for the students.

Statistical Analyses

In this study the researcher employed the SPSS and the AMOS software for analysis of data. The data was analyzed by several statistical methods such as; Cronbach's α coefficient to examine reliability of the questionnaires. Mean, standard deviation, skewness and kurtosis were used for the observed variables. Also, the present study used structural equation modeling. The structural model represents the relationship among the latent constructs; furthermore the measurement model describes the relations among the indicators and the latent variables (Jöreskog, Sörbom, du Toit, & du Toit, 1999). In this study, the structural relations among self-perception, attitude and reading ability across gender and grade were asseed

Results

Ilam students completed Persian versions of self-perception, attitude to read and reading scales. In this study, CFA is appropriate for assessing factor structure model. The researcher employed CFA to test the fit of that 10 factors including 6 factors of self-perception, 2 factors of attitude, and 2 factors of reading ability and assessing relationship between these scales across gender and grade. Descriptive statistic (means, standard deviations, skewness, and kurtosis) are illustrated in Table 1 and 2.

Since the maximum likelihood estimation procedures used in this study can produce distorted result when the normality assumption is severely violated (Curran, West, & Finch, 1996), the normality of each variable is investigated in terms of its skewness and kurtosis. Moreover, the skewness of this study was from .17 to 1.32 and the kurtosis was from .13 to 3.47. According to Curran et al (1996) absolute values of skewness index greater than 2 and kurtosis index greater than 7 illustrate serious departure from normality. Therefore, in this study the normality hypothesis of the variables were acceptable (see table 2).

Table 1

Means and Standard deviation for age and grade (N =380)

	M	*SD*	Min	Max
Age	11	.82	10	12
Grade	4.54	.5	4	5

Table 2

Showing the mean and standard deviation of the Self-perception and Reading Subscales

Measure	*M*	*SD*	Skew	Kurtosis
Self-Perception	37.85	7.13	1.13	3.47
Attitude	69.06	9.81	.92	.38
Comprehension	31.05	8.67	.53	.58
Fluency	56.65	11.07	.36	.13
General self-perception	3.26	2.86	.93	.31
Math self-perception	7.55	1.49	.19	1.25
Reading self-perception	5.7	1.92	1.08	.95
Penmanship self-perception	6.28	1.58	.29	2.45
Satisfaction self-perception	9.06	1.98	.73	.47
Confidence self-perception	5.74	1.33	.44	.63
Academic attitude to read	34.5	5.21	1.008	.52
Recreational attitude to read	34.74	5.37	1.11	.97

Table 2 shows that mean, standard deviation, Skewness and Kurtosis for self-perception and self-perception subscales, attitude and attitude subscales, as well as comprehension and fluency subscales of reading ability.

Also, Table 3 shows that the summary of the hypothesized first-order in structural model. This model provided acceptable fit to the data on the basis of the comparative fit index in final model (CFI = .96), root mean square error of approximation (RMSEA = .04), goodness of fit index (GFI = .90), Bentler-Bonett or non-normed fit index (TLI / NNFI= .92), chi-square (χ^2 = 70.09), degree of freedom (*df* = 35) and probability (*p* = < .001).

Table 3
Fit indices for Hypothesized First Order for Self-perception and Reading Subscales

Measure	χ^2*(df)*	*p*	GFI	TLI	IFI	CFI	RMSEA
Self-Perception	435.41 (297)	<.001	.90	.90	.92	.91	.05
General Ability	52.68(26)	<.001	.91	.92	.96	.95	.05
Math	26.05(10)	.004	.94	.80	.93	.92	.06
Reading	48.71(12)	<.001	.95	.74	.92	.91	.08
Penmanship	12.17(6)	.05	.90	.91	.98	.97	.04
Satisfaction	5.30(2)	.07	.91	.80	.98	.97	.06
Confidence	23.68(14)	.05	.93	.90	.94	.93	.04
Attitude	72.94(20)	<.001	.90	.91	.96	.95	.07
Recreational	55.72(13)	<.001	.92	.90	.94	.94	.08
Academic	133.52	<.001	.91	.90	.91	.91	.08
Self-perception and Attitude	74.19(24)	<.001	.91	.90	.93	.94	.07
Final	70.09(35)	<.001	.90	.92	.96	.96	.04

The model was examined using the 70 self-perception items, 20 attitude items, 47 comprehension items and 98 fluency Items in grade fourth and fifth elementary school students in Ilam, Iran. The fit results for first order are shown in Table 2. In this study, CFA indicated that the model did fit these data. For final model in first-order had a χ^2 / df ratio of 2.003 and both IFI and CFI value were above .90; the RMSEA value for final model was .04.

Table 4
Relationship between self-perception, attitude and reading ability across gender and grade

Measure	χ^2	*df*	*p*	IFI	TLI	CFI	GFI	RMSEA
Full model	95.34	44	<.001	0.94	.90	.94	.90	.05
Self-perception and sex	64.51	6	<.001	.90	.89	.90	.93	.08
Self-perception ,sex and Grade	46.27	13	<.001	.94	.90	.94	.91	.07
Attitude, fluency, comprehension, and Sex, Grade	4.11	4	.39	.99	.98	.95	.90	.01

Table 4 indicated that second-order structure with gender and grade. CFA illustrated that both orders did fit these data. The six factors of self-perception, two factors of attitude, two factors of reading ability for full model in second-order had a χ^2/df ratio of 2.17 and both IFI and CFI value were above .90. The RMSEA value for full model was .05 with a 90% confidence interval ranging from 29.96 to 83.47. Table 3 shows the relationship between self-perception, attitude and reading ability across gender and grade in elementary school students in Ilam, Iran.

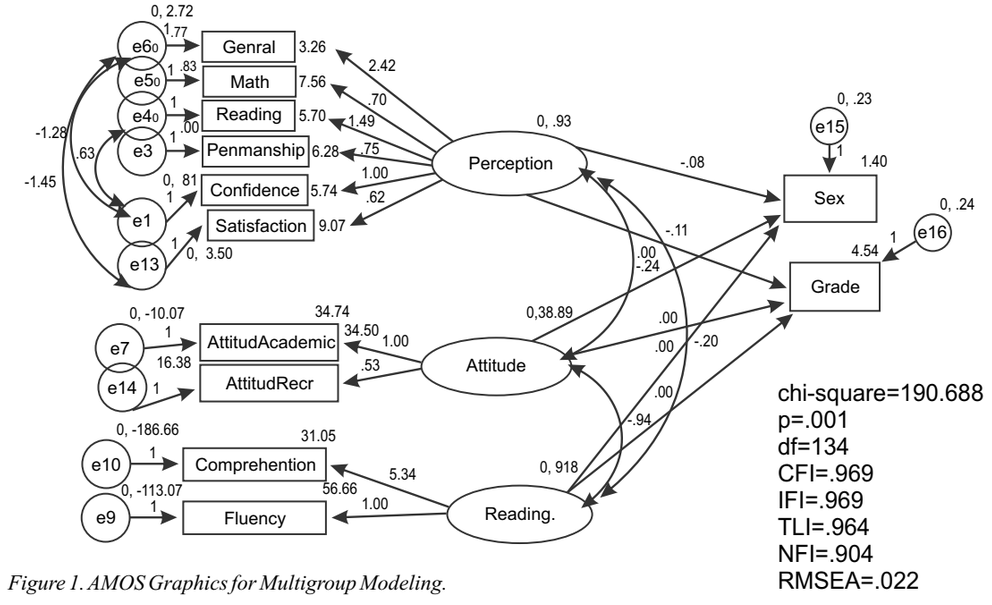

Figure 1. AMOS Graphics for Multigroup Modeling.

The above figure shows that structural equation modeling of the reciprocal relation between self-perception, attitude, fluency and comprehension across two variables; gender and grade. Path coefficients relevant to the reciprocal effects model or those that are significant are excluded for purposes of clarity.

Table 5

Correlation between self-perception, grade, gender, fluency and comprehension.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Attitude	1.00														
2. Perception	-.04	1.00													
3. Reading	-.05	-.06	1.00												
4. Grade	-.02	-.20*	-.00	1.00											
5. Sex	-.02	-.16*	-.00	.03	1.00										
6. Attitude-R	.63	-.02	-.03	-.01	-.01	1.00									
7.Satisfaction	-.01	.30	-.02	-.06	-.04	-.00	1.00								
8.Comprehention	-.09	-.12*	1.86	-.01*	-.00*	-.05	-.03	1.00							
9.Fluency	-.01	-.01*	.27	-.00	.00	-.00	-.00	.51*	1.00						
10.Attitude-A	1.16	-.04	-.05	-.03	-.02	.73	-.01	-.10	-.01*	1.00					
11.General	-.03	.81	-.05	-.16	-.13	-.02	-.00	-.10	-.01	-.03	1.00				
12.Math	-.01	.45	-.03	-.09	-.07	-.01	.13	-.05	-.00	-.02	.36	1.00			
13.Reading	-.03	.74	-.05	-.15	-.12	-.01	.22	-.09	-.01	-.03	.61	.33	1.00		
14.Penmanship	-.01	.45	-.03	-.09	-.07	-.01	.13	-.05	-.00	-.02	.37	.20	.33	1.00	
15.Confidence	-.02	.73	-.04	-.14	-.11	-.01	.22	-.09	-.01	-.03	.25	.32	.29	.33	1.00

Table 5 shows that correlation significant at the .05 and .01 levels. Based this table correlation between self-perception, grade, sex, fluency and comprehension were stronger than other variables and sub variables.

Discussion

For all of the students' self-perception, attitude and reading ability variables were the first-order and second-order and consistently provided a good fit according to all areas and were the best fitting relative to both models. In all instances, first-order and second-order models included a significant correlation between the self-perception, attitude and reading ability variables across gender and grade that was significant in importance (ranging from .41 to .69). The results of this study illustrated that CFA in both orders did fit these data. The six factors of self-perception, two factors of attitude, two factors of reading ability, in second-order model had a χ^2/df ratio of 2.17 and both IFI and CFI value were above .90. The RMSEA value was .05 with a 90% confidence interval ranging from 29.96 to 83.47. The results of this study supported two main research questions: 1. Is there a relationship between self-perception, attitude to read and reading ability? 2. Is there a relationship between self-perception, attitude to read and reading ability across gender and grade? At first sight, there were relationship between self-perception, attitude to read and reading ability (comprehension and fluency) in elementary school students (first-order model). Since they all supported the reciprocal effects model. However, when we look at the reading ability of the relation between self-perception, and attitude to read, substantial relationship was found between variables in first-order.

With respect to the second question, the fit of second-order model (RMSEA=.05) was substantially worse compared to the fit of first-order model (RMSEA=.04). This finding thus confirms evidence found in previous research (Marsh & O'Mara, 2008;

Marsh et al., 2005; Rrautwein, Lüdtke, Marsh, Köller, & Baumert, 2006). The results of this study supported the results of the Helmke and Van Aken study (1995). These results did support a full reading ability, self-perception, and attitude to read across gender and grade in the final model (Full model). This study also provides support for the domain specificity of self-perception, attitude to read and reading ability; this finding is in line with some studies such as Marsh & O'Mara (2008); Marsh, Trautwin, Koller, and Baumert (2006); Valentine, Dubois and Cooper (2004).

Limitation

The sample size of the study is limited to students in the fourth and fifth grades in the elementary schools in Ilam, Iran. This is because most of the problems about feeling to read begin after the third grade in the Persian language (Researcher Communication, 2010). Therefore, the result of this study cannot be generalized to the students in other areas.

Conclusion

In this study two scales were used for assessing feeling to read and two subscales reading ability for assessing comprehension and fluency in Ilam, Iran elementary school students. The researcher employed SPSS and AMOS for the analysis of data. The theoretical model of students' self-perception, attitude to read and reading ability across gender and grade were used. Structural Equation Modeling and measurement model were supported. The result shows that goodness of fit in variables and domains variables.

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Imaginal Processes, Coping Behaviour and Mental Health of Adult Students of Lahore City

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Researchers have long been interested in the coping styles of individuals who display symptoms of various psychopathologies. Recently, Psychopathology and Coping Behaviours have been associated with Imaginal Processes. The present research examines the relationship of symptoms of Psychopathology in a nonclinical college population with their Imaginal Processes, and Coping Behaviour. A pilot study was conducted on 30 students. The suggestions gathered from the pilot study were incorporated into the main study. In the main study, 1000 students, 451 males and 549 females studying in F.A/F.Sc, (376), B.A/B.Sc,(268) and M.A/ M.Sc (356) within the age range of 16 to 23 years were taken. They completed three questionnaires measuring Coping Behavior, Imaginal Processes, and Psychopathology. The results indicated that the students scoring higher on Positive Constructive Daydreaming, Problem Focused Coping, and Emotion Focused Coping reported less symptoms of Psychopathology. The findings of the study may be helpful to the college and school counselors to screen non-clinical student population for their use of habitual coping styles and imaginal processes as indicators of potential health problems. Further research in the area is required to establish the findings of the present study.

Keywords: coping, imagery, psychopathology, mental health.

Since young adulthood is a transition from education to employment, it might have implications for health (Mulye et al., 2009). Taking into consideration the pattern of young adults' health, neuropsychiatric disorders are the main cause of burden even in high-income countries, especially in those aged 15 to 24 years (Gore et al., 2011). It is also evident from increasing number of students seeking counseling services for various problems including self injurious behavior, learning disabilities, eating disorders, illicit drug use, on campus sexual assaults. Approximately one-fifth of counseling centre clients reported severe psychological problems (Kitzrow, 2003). In a national survey in US, twenty-eight percent of freshman reported feeling frequently overwhelmed, and 8% reported feeling depressed. Although distress levels peak during the first year and then declines for most students, still a subset of students manifest severe, chronic levels of distress that does not decrease over time (Verger et al., 2009).

Furthermore, the literature suggests that psychopathology has a significant association with imaginal processes (Gruis, 2005) and coping behaviors, used in stressful situations (Compas et al., 2001; Garmezy, 2001; Uehara et al., 1999; Clark & Hovanitz, 1989). There is a lack of published research in this area in Pakistan. If mental health problems are left unrecognized and untreated, it may lead students to drop out from college or fail their studies. It may also lead them to attempt or commit suicide, or engage in other risky or dangerous behaviors that may result in serious injury, or disability. Monitoring the health of college students in Pakistan may help discover problems early on, and may help in initiating services or interventions to cope with these problems.

The status of mental health can be measured by various tools. Some of them are more appropriate for measuring short-term changes such as the widely used General Health Questionnaire (GHQ), an extensively used screening instrument of varying length that is appropriate for detecting non-psychotic psychological morbidity including anxiety and depression in the general population (Fryers et al., 2004). Whereas, Symptom Checklist-Revised (SCL-R) is an indigenous tool in Urdu language extensively used for screening Anxiety, Depression, Obsessive Compulsive Disorder, Schizophrenia, Somatoform, and Level of Frustration Tolerance in general population (Rahman, Dawood, Jagir, Mansoor, & Rehman, 1997). Mental health can be operationalized as lesser symptoms of anxiety, depression, somatoform, schizophrenia, obsessive compulsive disorder and level of frustration tolerance.

Coping has been shown to be a determinant of mental health. The individuals' coping styles may buffer them from the adverse outcomes associated with significant stressors (Somerfield & McCrae, 2000). Learning more about how people successfully cope with stressors may provide strategies for psychologists to intervene with at-risk individuals in order to help them cope more successfully (Rahman, 2004). Lazarus and Folkman defined coping as constantly changing cognitive, and behavioral efforts to manage specific external and internal demands that are appraised as exceeding the resources of the person (as cited in Somerfield & McCrae, 2000). The factor structure of coping style inventories: problem vs. emotion-focused coping correlate reasonably with psychological symptom inventories (Endler & Parker, 1990). The literature highlights three styles of coping e.g. active coping, emotion oriented coping, and avoidant strategies employed for coping. Active coping strategies are either behavioral or psychological responses used to change the nature of the stressor itself or how one thinks about it, whereas avoidant coping strategies lead people into activities such as alcohol use, or mental states such as withdrawal, that keeps them from directly addressing stressful events. Generally, active coping strategies: active planning, seeking instrumental social support, and emotion oriented coping strategies: seeking emotional social support, positive reinterpretation and religion, are considered better ways to deal with stressful events (Vollrath, Alnaes, & Torgerson, 2003), whereas avoidant coping strategies appear to be psychological risk factor for adverse responses in stressful situations (Holahan & Moos, as cited in Psychosocial Working Group, 1998).

Furthermore, the studies of college students have also shown that coping is also strongly related with imaginal processes, as well as mental illness (Endler & Parker, 1990; McCrae & Costa, 1986). Imaginal processes include Positive Constructive Daydreaming (PCD), Guilt and Fear of Failure (GFF), and Poor Attention Control (PAC). Individuals scoring higher on PCD believe that daydreams are worthwhile, solve problems, help generate pleasant emotions; whereas, individuals scoring higher on GFF have fantasies of winning awards, being expert and in a recognized group, have fantasies of fearing responsibilities and letting down loved ones, becoming angry, getting even, feeling guilty etc. Moreover, PAC daydreamers have tendencies towards mind wandering, they easily loses interest, gets board, as well as are easily distracted (Huba, Singer, Aneshensel, & Antrobus, 1982).

Furthermore, a review of the gender differences reveals that males use problem-focused coping strategies, planned and rational actions, positive thinking as well as personal growth, humour, day-dreaming and fantasies (Vingerhoets & Heck, 2009). However, women prefer emotion-focused coping solutions, self-blame, expression of emotions/seeking of social support, and wishful thinking/emotionality (Matud, 2004; Vingerhoets & Heck, 2009). Men are found to have more emotional inhibition than the women, and the women score significantly higher than the men on somatic symptoms and psychological distress (Matud, 2004). There is no published research studying the education level differences in coping, imaginal and mental health.

Most of the researchers have focused on outcomes that are western-based and lacking in sensitivity to community and cultural factors that contextualize how imaginal processes and coping behaviors exist in eastern cultures. Also the literature review reveals that there is limited published research in the last decade studying the association between daydreaming, coping, and psychopathology in college students. As a result, there has been little cross-cultural validation of findings, in non-western cultures. There have been few studies in Pakistan studying the impact of coping behaviors on mental health (Kausar, 2010) and no study identifying the role of imaginal processes with gender and education level.

As such, understanding imaginal processes and coping behaviors may prove to be critical in developing preventative treatments for a wide spectrum of neuropsychiatric diseases, with a subsequent decrease in physical and economic burden on society. Therefore, following hypotheses were formulated in the light of the literature.

Hypotheses

1. Positive Constructive Daydreaming, Problem Focused Coping, Emotion Focused Coping will negatively correlate with Depression, Anxiety, Obsessive Compulsive Disorder, Level of Frustration Tolerance, and Schizophrenia.
2. Guilt and Fear of Failure Daydreaming, Poor Attentional Control, and Less Useful Coping will positively correlate with Depression, Anxiety, Obsessive Compulsive Disorder, Level of frustration Tolerance, and Schizophrenia.
3. Male students will score higher on Positive Constructive Daydreaming, Problem Focused Coping, Emotion Focused Coping as compared to female students.
4. Male students will score lower on Guilt and Fear of Failure Daydreaming, Poor Attentional Control, Less Useful Coping, Depression, Anxiety, Obsessive Compulsive Disorder, Level of Frustration Tolerance, and Schizophrenia as compared to female students.
5. The higher the level of education the higher will be the score on Positive Constructive Daydreaming Problem Focused Coping and Emotion Focused Coping and lower on Depression, Anxiety, Obsessive Compulsive Disorder, Level of Frustration Tolerance, and Schizophrenia.

Method

Participants

A cross-sectional study was carried out with 1000 college students of Intermediate, Bachular's and Master's degree. The participants were 451 males and 549 females, which included 376 from Intermediate, 268 from Bachelors, and 356 from Masters falling within an age range of 16 to 23 years. The sample was selected purposively from the colleges in Lahore, which granted permission to collect data.

Measures

The participants filled three paper and pencil instruments.

Short Imaginal Processes Inventory (SIPI): The SIPI assesses aspects of daydreaming on three scales: Positive Constructive Daydreaming (PCD), Guilt and Fear of Failing Daydream (GFF), and Poor Attentional Control (PAC). It consists of 45 items with a five alternate response format: 1 meaning very true to 5 meaning definitely untrue. The coefficients alpha for internal consistency is 0.80, 0.82, and 0.83 for Positive Constructive Daydreaming, Guilt and Fear of Failing Daydream, and Poor Attentional Control respectively. All the items of each scale showed a significant correlation at $p < 0.001$ with all the items of their own scale. There is a low correlation with the items of the other scales (Huba, Singer, Aneshensel, & Antrobus, 1982).

Coping Orientation to Problems Experienced (COPE): The full COPE (Carver, Scheier, & Weintraub, 1989) is a 60-item instrument reflecting three coping styles: Problem Focused Coping, Emotion Focused, and Less Useful Coping styles. Each item is rated on a 4-point Likert-Type Scale that ranges from 1 meaning 'I usually don't do this at all" to 4 meaning "I usually do this a lot". The alpha reliability for the COPE ranges from 0.62 to 0.92 at $p < 0.01$. Test-retest reliability has been reported as ranging from 0.46 to 0.86 (Allen & Rosse, 2004).

Symptom Checklist-R (SCL-R). SCL-R (Rahman, Dawood, Jagir, Mansoor, & Rehman, 1997): It is based on six scales: Depression, Anxiety, Somatoform, Obsessive Compulsive Disorder, Schizophrenia, and Level of Frustration Tolerance (LFT). It consists of total 139 items: 24 are of Depression, 34 of Somatoform, 27 of Anxiety, 15 of OCD, 15 of Schizophrenia, and 24 are of LFT. Reliability ranges from 0.79 to 0.92 for the non-psychiatric sample. The correlation coefficient between Beck Depression Inventory, and Depression Scale was found to be 0.73 at $p < 0.05$ ($n = 32$); Somatoform Scale and Somatic Hysteria Scale of Crown Crisp Experimental Inventory was 0.74 at $p < 0.05$ ($n = 18$); Anxiety and State Trait Anxiety Inventory was 0.47 at $p < 0.05$ ($n = 20$); Obsessive Compulsive Disorder and Padua Inventory was 0.21 at $p < 0.05$ ($n = 18$); Schizophrenia and PANSS was 0.31 at $p < 0.05$ ($n = 32$); LFT scale of SCL-R and Level of Frustration Tolerance Inventory was 0.68 at $p < 0.05$ ($n = 120$).

Procedure

The two questionnaires used in the present research i.e. SIPI and COPE were translated into Urdu language following the standard procedure of translation and back translation. A pilot study was conducted on 10 students of Intermediate, 10 students of B.Sc (Hons) , and 10 students of Masters. The participants were told that there was no correct or incorrect answer. Each item was to be answered how closely it related to each individual. They were ensured about the confidentiality of the given information. In the study, the data was collected in the form of groups of 15 to 30 students. Each participant filled a consent form. After filling in the demographics of age, sex and education level the participants responded on three measuring instruments.

Statistical Analysis

The scores on each item of SIPI, COPE and SCL-R were entered in Statistical Package of Social Sciences. Pearson-Product Moment Correlation among the subscales of SIPI, COPE and SCL-R was conducted. Moreover, independent samples t-test was carried out to test the difference in mean scores between male students and female students on SIPI, COPE, and SCL-R. Finally One-way ANOVA was computed for the mean difference among levels of education: Intermediate, Bachelor's, and Master's on SIPI, COPE, and SCL-R.

Results

All the three aspects of Daydreaming (Positive Constructive Daydreaming, Guilt and Fear of Failure and Poor Attentional Control) were significantly and positively correlated with coping styles (Problem Focused Coping, Emotion Focused Coping, and Less Useful Coping) as well as with the six subscales of SCL-R (Depression, Somatoform, Anxiety, Obsessive Compulsive Disorder, Level of Frustration Tolerance and Schizophrenia). The two of the coping styles (Emotion Focused coping and Less Useful coping) also positively significantly correlated with all the three aspects of Daydreaming and six subscales of SCL-R. However, the third coping style, Problem Focused Coping showed significant positive correlation only with the three Daydreaming styles, Emotion Focussed Coping style, and Obsessive Compulsive Disorder (Table 1).

Table 1
Correlation between the Subscales of SIPI, COPE, and SCL-R

	PCD	GFF	PAC	PFC	EFC	LUC	DEP	SOM	ANX	OCD	LFT	SCH	EDU
PCD	--												
GFF	.57**	--											
PAC	.49**	.50**	--										
PFC	.28**	.14**	.27**	--									
EFC	.25*	.21**	.26**	.66**	--								
LUC	.22**	.38**	.24**	-.02	.23**	--							
DEP	.12**	.31**	.20**	-.05	.07*	.33**	--						
SOM	.13**	.27**	.16**	-.00	.07*	.25**	.68**	--					
ANX	.16**	.30**	.23**	.02	.14**	.28**	.73**	.84**	--				
OCD	.15**	.37**	.22**	.06*	.16**	.31**	.58**	.57**	.61**	--			
LFT	.18**	.37**	.27**	.04	.19**	.31**	.70**	.65**	.77**	.66**	--		
SCH	.18**	.38**	.20**	.02	.13**	.30**	.52**	.57**	.58**	.62**	.60**	–	
EDU	-.01	-.05	-.077**	.01	.01	.05	-.042	-.102**	-.101**	-.094**	-.051	-	–

Note: PCD = Positive Constructive Daydreaming, GFF = Guilt & Fear of Failure, PAC = Poor Attentional Control, PFC = Problem Focused Coping, EFC = Emotion Focused Coping, LUC = Less Useful Coping , DEP = Depression, SOM = Somatoform, ANX = Anxiety, OCD = Obsessive Compulsive Disorder, LFT = Level of Frustration Tolerance, SCH = Schizophrenia, EDU = Education level, p* < .05, p** < .01.

Table 2
Student's t test and F-test for significance testing of difference in means of variables

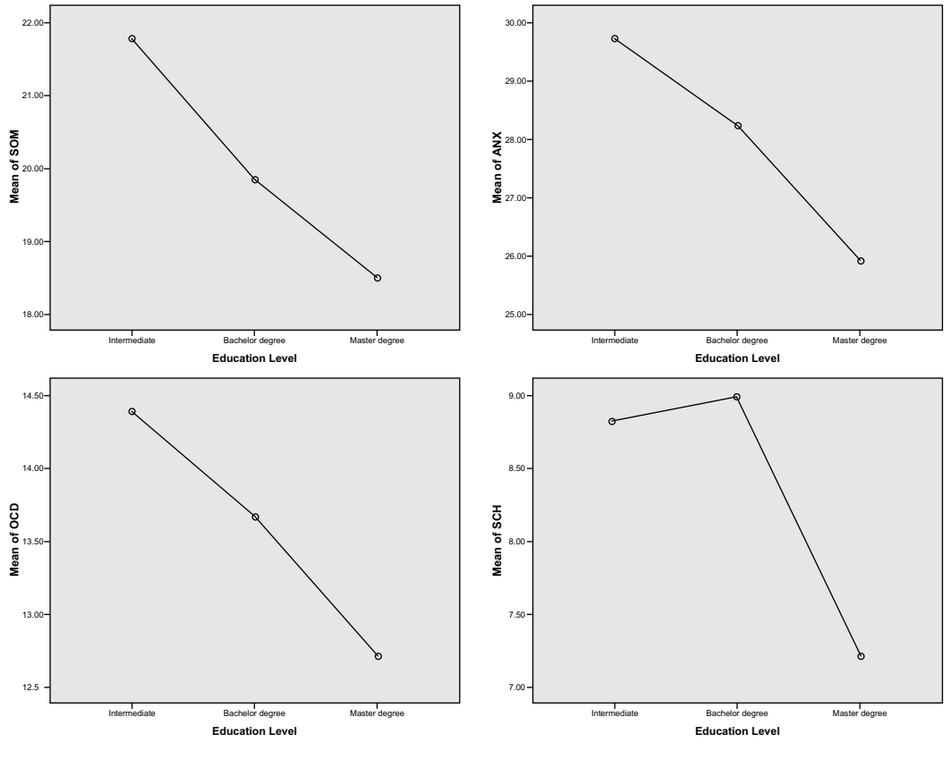
	Gender		Education Level	
	t	*p*	*F*	*p*
PCD	-1.79	0.03	0.59	0.55
GFF	4.69	0.00**	1.36	0.25
PAC	-0.74	0.23	3.00	0.05
PFC	-0.69	0.24	0.19	0.82
EFC	-0.86	0.19	0.12	0.87
LUC	3.37	0.00**	1.71	0.18
DEP	1.12	0.13	1.24	0.28
SOM	2.15	0.01*	5.31	0.00**
ANX	-1.61	0.05	5.19	0.00**
OCD	6.56	0.00**	4.47	0.01*
LFT	0.15	0.43	1.29	0.27
SCH	6.29	0.00**	7.59	0.00**

Note: PCD = Positive Constructive Daydreaming, GFF = Guilt and Fear of Failure, PAC = Poor Attentional Control, PFC = Problem Focused Coping, EFC = Emotion Focused Coping, LUC = Less Useful Coping, DEP = Depression, SOM = Somatoform, ANX = Anxiety, OCD = Obsessive Compulsive Disorder, LFT = Level of Frustration Tolerance, SCH = Schizophrenia.

Significant gender differences were found in Less Useful Coping, Somatoform, Obsessive Compulsive Order, Guilt & Fear of Failure, and Schizophrenia. Male students have endorsed significantly greater level in all the above discussed variables as compared to female students.

The results of F-ratio (Table 2) are based on One-way Analysis of Variance for the factor Education level. It can be observed that significant differences among various education levels are found only for the four of the subscales of SCL-R i.e. Somatoform, Anxiety, Obsessive Compulsive Disorder, and Schizophrenia. The Tukey's test showed that Master level students are significantly different to Intermediate level students with respect to these four subscales. For all of these subscales (Somatoform, Anxiety, Obsessive Compulsive Disorder and Schizophrenia) Master level students have shown significantly lower scores on these subscales as compared to Intermediate level students but no significant differences are found between Master and Bachelor level students except for Schizophrenia (Figure-1).

Figure 1: Means plot of significant variables against levels of education



Discussion

Associations previously observed in coping behaviors, and psychopathologies were partially replicated in the current research. Consistent with the earlier work the results of the present study indicates that there is a significant positive relationship between Positive Constructive Daydreaming, and adaptive coping strategies. Whereas, Guilt and Fear of Failure, and Poor Attentional Control daydreaming is significantly positively correlated with Less Useful Coping (Greenwald & Harder, 2003), and psychopathology (Klinger, Henning, & Janssen 2009; Giambra & Traynor, 1978; Greenwald & Harder, 1991; Starker & Singer, 1975). However, it was interesting to note that the fantasies at times seem to, although minimally, serve as a substitute for behaviors in actual situations, which is reflected by the positive correlation between Positive Constructive Daydreaming with Less Useful Coping, as well as of Guilt and Fear of Failure, and Poor Attentional Control with Problem Focused Coping. This means that under certain situations daydreams are inversely related to coping behaviours in actual situations.

There were significant gender differences in Less Useful Coping, Guilt & Fear of Failure, Somatoform, Obsessive Compulsive Order, and Schizophrenia, where male students have endorsed significantly greater level in all the above discussed variables as compared to female students. This result is consistent with the findings of Taylor, Fulcomer, and Taylor (1978). Traditional gender roles define masculinity as having power and being in control. The acceptable male behaviors include competitiveness, independence, and assertiveness. There is a gender role stress when there is a discrepancy between how one believes he or she should act, based on gender role expectations and how one actually behaves. Situations that typically produce stress for men are those which challenge their self-identity and cause them to feel inadequate. Their concept of gender identity has to match with a traditional male role, otherwise they will experience stress in situations requiring subordination to women (Gender issues in Mental Health, 2006). As there is a social change in the traditional structure of our Pakistani society since the beginning of the 20th century, the male members of the society may experience gender role stress i.e. male students have to compete on an open merit with female students for admissions in colleges and universities. There are more female students in every class and generally the top positions are secured by females in the exams. Females even have more representation than boys in curricular and co-curricular activities. In addition, female students give male students a tough competition in the job market.

Therefore, women are more in executive positions than before whereas men are working as subordinates, not in control of the various situations faced in daily life. Due to such transition, men may be experiencing constraints of resources - not able to express their emotions. Since they are supposed to put up a tough image in stressful situations this may lead them to resort to expressing their fears and inadequacies in the form of daydreaming like Guilt and Fear of Failure. Therefore, men are found to have more emotional inhibition than the women (Matud, 2004). In the present study this has been

reflected in a way as men endorsed the use of Less Useful Coping, and scored higher on psychopathology: Somatoform, Obsessive Compulsive disorder, and Schizophrenia.

It can be observed that significant differences among various education levels are found only for the four of the subscales of SCL-R i.e. Somatoform, Anxiety, Obsessive Compulsive Disorder, and Schizophrenia. The Tukey's test shows that Master level students are significantly different to Intermediate level students with respect to these four subscales. For all of these subscales (Somatoform, Anxiety, Obsessive Compulsive Disorder and Schizophrenia) Master level students have shown significantly lower scores on these subscales as compared to Intermediate level students but no significant differences are found between Master and Bachelor level students except for Schizophrenia. This is consistent with the findings of Drossman et al. (2000) who reported similar trends in his research.

The picture of the more maladjusted college students that emerges from this study is consistent with the findings of Endler, and Parker (1990) that connects neuroticism with maladaptive coping (Compas et al., 2001; Garmezy, 2001; Uehara et al., 1999; Clark & Hovanitz, 1989), and with the findings of McCrae and Costa (1986) which links neuroticism with escapist fantasy, wishful thinking, passivity and indecisiveness (Gruis, 2005). The findings of the study may be helpful since the adaptive coping styles are positively associated with significant health outcomes so the clinician can rely on habitual coping styles and imaginal processes as indicators of potential health problems, in screening nonclinical samples. It is clear, however, that more research on the correlates of male mental health and how these differ from those of females, also the role of education and age needs to be explored. The findings of the present research suggest that daydreaming is not an ordinary activity: instead it is an important dimension of mental life requiring further consideration in mental health research. Further research in the area is required to establish the findings of the present study.

Limitations

The design of the study does not allow conclusions on a causal relationship. The aim was to investigate the association between psychopathology, coping behaviour, and imaginal processes in students. Potential sources of bias in questionnaire surveys may arise from the respondents not answering honestly, or not remembering their particular behaviour. This type of bias was probably not higher than in similar studies using standardized scales, therefore the results of the present study are reasonably comparable with the results of other studies. The timing of data collection about mental health is a critical point in case of university students because their stress level can change during the academic year. A potential source of bias might be due to the collection of data close to the exam period. In order to reduce this type of bias, data were collected in the mid-term of the semester.

Conclusion and Recommendations

Psychological morbidity is seen significantly more in male students of Lahore as compared to females, while level of education is negatively correlated with psychopathology indicating better mental health among students.

The results highlight the importance of further, preferably longitudinal research, on the mental health and behaviour of students in light of their status as future role models of health in their community. Training institutions should enhance training to improve coping skills for all or should provide greater and better targeted services for those who are at high risk for pathology. This will help to improve students' mental health but also increase their future credibility as professionals.

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Role of Parental Overprotection and Stressful Life Events in Occurrence of Anxiety Disorders

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The present study aimed to investigate the role of perceived parental overprotection during childhood and experiences of stressful life events, as possible risk factors for the development of anxiety disorder in adulthood. Retrospective Ex post Facto Design was used as research design. The sample consisted of 400 adults (age range = 18 - 53 years); divided into clinical group (n = 200) and control group (n = 200). Symptom Checklist-R Anxiety subscale (SCL-A), Parental Bonding Instrument (PBI) and Social Readjustment Rating Scale (SRRS) were administered. Independent sample t-test and Regression analysis were applied to analyze the data. The results showed that clinical group perceived their fathers and mothers significantly more overprotective and less caring than control group. Clinical group scored significantly higher on the Social Readjustment Rating Scale as compared to control group. Regression analysis revealed that mother overprotection positively predicted and father care negatively predicted anxiety in clinical group.

Keywords: overprotective parenting, stressful events, anxiety disorders.

There is diverse spectrum of anxiety problems that exist in every culture ranging from nervousness, avoidance, shyness to full criterion followed Anxiety Disorders. Overall prevalence of Anxiety Disorders in Pakistan is found to be 34% (Mirza & Jenkins, 2004). Anxiety Disorders were reported to be the second most prevalent psychological disorders among adults of Lahore City. The prevalence of Anxiety Disorders was accounted to be 1.12% in adult males and remarkably high in adult females i.e 4.01 % (Rehman et al., 2008). Due to high prevalence rate, it seems important to study the factors that lead to the development of Anxiety Disorders in Pakistani society.

Keeping aside the genetic factors for any psychopathology, many studies in the past focused on the environmental aspects such as overprotective and strict parenting, family maladjustments, lack of socialization, financial problems and stressful life events, that were linked to psychological problems, particularly Anxiety Disorders (Anna, Muris, Susan, & Thomassen, 2006; Berg-Nielsen, Vikan & Dahl, 2002: Carter, Sbrocco, Lewis, & Friedman, 2001; Edwards, Rapee, & Kennedy, 2009; Fox, Halpern, Ryan, & Lowe, 2010; Gilbert, Allan, & Goss, 1996; Girolamo, Dietrich, & Angermeyer, 2008; Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004; Heider et al., 2009; Manfro et al., 1996; McLaren & Crowe, 2003; McLaughlin & Hatzenbuehler, 2009; McLeod, Wood & Weisz, 2007; Middeldorp, Cath, Beem,Willemsen, & Boomsma, 2008; Mofrad,

Abdullah, & Samah, 2009; Muris et al., 2006; Ollendick, Langley, Jones, & Kephart, 2001; Sideridis & Kafetsios, 2008; Someya et al., 2000; Spokas & Heimberg, 2009; Takahashi, 2000; Taylor & Alden, 2006; Thomasgard & Metz, 1993; Wilcox et al., 2008; Wilde & Rapee, 2008; Yoshida, Taga, Matsumoto, & Fukui, 2005; Zlomke & Young, 2009).

Therefore overprotective parenting and stressful life events were chosen for the present research to find out their involvement in the development and maintenance of Anxiety Disorders in adult life.

Overprotective Parenting

Overprotective parenting, one of the main constructs of the present study, has been researched widely in the past. Levy (1970) defined overprotective relationship characterized by a parent who is highly supervising and vigilant, has difficulties with separation from the child, discourages independent behavior and is highly controlling (as cited in Thomasgard & Metz, 1993). Parker, Tupling, and Brown (1979) formulated overprotection as parental behaviors that disallow the child's personal growth, development, autonomy, and independence. They included a second variable in their model; i.e. care, which depicts the parents' ability to communicate, emotional expression, and promote closeness with the child (as cited in Mofrad, Abdullah, & Samah, 2009). Parker, Tupling, and Brown (1979) also categorized parents according to whether they are high or low on parental overprotection and care.

Child rearing practices are different and diverse in different ethnicities. In South Africa, white youths generally rated their parents' rearing behaviors as less anxious, overprotective, and rejecting, but more emotionally warm than colored and black youths (Muris et al., 2006). In Japanese community, patients with Panic Disorder scored their parents as more rejecting and overprotective than did control group (Someya et al., 2000).

In European nations, high maternal overprotection, authoritarianism and low paternal care was strongly associated with the presence of anxiety disorders such as Panic Disorder With and Without Agoraphobia (PDAG), Generalized Anxiety Disorder (GAD), Social Phobia (SOP) and Simple Phobia (SP) in adults (Heider et al., 2008).
A meta-analysis of studies examined the linkage between parenting and childhood anxiety, it was revealed that parental control and overprotection was more strongly associated with child anxiety than was parental rejection (McLeod, Wood, & Weisz, 2007).

In childhood, perceived parental care, particularly paternal care, was associated negatively with all fears such as fear of failures among students (Sideridis & Kafetsios, 2008). It was found that one of the major risk factor for the development of Separation Anxiety Disorder (SAD) in children is high maternal overprotective parenting style (Mofrad, Abdullah, & Samah, 2009).

In adolescents, insecure attachment and a controlling or anxious rearing style is a strong predictor of anxiety symptoms (Anna, Muris, Susan, & Thomassen, 2006). Similarly, teenage students who recalled maternal overprotection appeared to be at high risk and prospectively predicted an increase in social anxiety in a socially stressful situation such as beginning college life and developing a new relationship etc (Spokas & Heimberg, 2009).

Childhood experiences of parenting have strong impact in adulthood. Those adults who described their parents as overprotective and controlling develop social anxiety and performance anxiety in their adult age (Taylor & Alden, 2006). It was found that adults with a lifetime history of Obsessive Compulsive Disorder were more likely to report parental overprotection and less likely to report parental care, than offspring without such history (Wilcox et al., 2008).

Stressful Life Events

The concept of Stressful Life Events (SLE) given by Holmes and Rahe (1967) has also been linked with physical and mental illnesses extensively. With respect to anxiety disorders, SLE has been an important factor in the occurrence of anxiety disorders in individuals (Barlow & Durand, 2002). Negative and stressful life events were significantly associated with anxiety symptoms and fear, especially when negative life events interact with negative affectivity (Fox & Halpern, Ryan & Lowe, 2010). In causal association of adverse life events and anxiety symptoms; negative attributional style, avoidant coping and emotion dysregulation played the role of mediators (McLaughlin & Hatzenbuehler, 2009; Ollendick, Langley, Jones, & Kephart, 2001).

Children with OCD had experienced significantly more negative life events in the year before onset than normal controls, and they perceived the life events as having more impact (Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004). It was studied that negative life events, negative attributional style, and avoidant coping, all significantly predicted levels of fear and anxiety (Ollendick, Langley, Jones, & Kephart, 2001).

A research conducted on patients with Panic Disorder, discovered that 79.8% patients reported having had a stressful life event in the year preceding the onset of the disorder (Manfro et al., 1996). Those individuals who had experienced traumatic events of an interpersonal nature had significantly higher levels of PTSD symptoms than those who had experienced other types of events (Lancaster, Melka, & Rodriguez, 2009). Parent anxiety, parent overprotection, child inhibition and the impact of negative life events predicted anxiety in children (Edwards, Rapee, & Kennedy, 2009).

The role of overprotective parenting and stressful life events in the development of Anxiety Disorders has been empirically identified in Western Societies, the present research therefore planned to see the relationship between the variables in Pakistani population.

The present study aimed to explore the role of perceived parental overprotection in childhood and experiences of stressful life events, as possible risk factors for the development of any of anxiety disorders (as listed in DSM-IV TR; Panic Disorder with and without Agoraphobia, Generalized Anxiety Disorder, Obsessive Compulsive Disorder, Social Phobia, Specific Phobia and Post Traumatic Stress disorder) in adulthood.

It was hypothesized that clinical group perceived their parents as overprotective in their childhood and experience more stressful life events as compared to control group. It was also hypothesized that overprotective parenting in childhood and stressful life events were potential predictors of Anxiety Disorders in adult age.

Method

Research Design

Retrospective Ex post Facto Design was used in the present research. The selected participants were already diagnosed with Anxiety Disorders. The present study was also a comparative study, comparing a Clinical Group (participants with anxiety disorders) and Control Group (normal participants). A Purposive sampling (criterion- based sampling) procedure was used to select the required sample.

Participants Selection

The research participants were divided into two groups; clinical group and control group. Participants were allotted to clinical and control group on the basis of following criteria:

Inclusionary Criteria for Clinical Group

Participant's age should be 18 years and above. He/she should fulfill DSM-IV diagnostic criteria of any Anxiety Disorder (screened by the researcher). He/she must be brought up by at least one biological parent, who was alive till the participant's age was 16 years.

Inclusionary Criteria for Control Group

Participant's age should be 18 years and above. He/she should have no past and present history of any Anxiety Disorder. He/she must be brought up by at least one biological parent, who was alive till the participant's age was 16 years.

The participants were 400 adults including 176 males (44 %) and 224 females (56%). Both clinical and control groups had equal representation of males (88 + 88) and females (112 + 112). Their age range was 18 - 53 years. In the clinical group, mean age for males was 33.42 years and for females was 32.90 years. In control group, mean age for males was 33.3 years and females mean age was 32.99 years. In clinical group 24 (12 %) adults were illiterate, and 276 (88%) adults were literate, with mean education of 10.46 years. In

control group, 14 (7%) adults were illiterate and 286 (93%) were literate with the mean education of 10.43 years.

Group Matching Procedure

Both groups were matched on age, gender and education. Each group was divided into six age bands; Early Adulthood-1 (age range 18-23 years), Early Adulthood-2 (age range 24-29 years), Middle Adulthood-1 (age range 30-35 years), Middle Adulthood-2 (age range 36-41 years), Late Adulthood-1 (age range 42-47 years) and Late Adulthood-2 (age range 48-53 years), for precise comparison between the two groups. Age was matched; mean age of each age band in both clinical and control group was approximately same (see Table 1). For gender variable, each group had equal number of male and female participants falling in each age band. Education was also matched; mean education of each age band in both clinical and control group was about the same (see Table 1).

Table 1

Demographic characteristics of clinical and control group.

		Early Adulthood-1		Early Adulthood-2		Middle Adulthood-1		Middle Adulthood-2		Late Adulthood-1		Late Adulthood-2	
		Cl (avg)	Co (avg)	Cl (avg)	Co (avg)	Cl (avg)	Co (avg)	Cl (avg)	Co (avg)	Cl (avg)	Co (avg)	Cl (avg)	Co (avg)
Age	M	20.5	20.6	26.5	25.8	32.7	32.2	38.4	38.9	44.9	45	50.3	50.9
	F	21.3	21.4	26.0	26.4	32.2	32.4	38.3	38.1	44.6	44.5	49.8	50.1
Gen	M	N=14	N=14	N=24	N=24	N=15	N=15	N=14	N=14	N=12	N=12	N=9	N=9
	F	N=18	N=18	N=28	N=28	N=25	N=25	N=20	N=20	N=12	N=12	N=9	N=9
Edu	M	11.4	10.9	13.2	13.1	12.2	12.7	12.1	12.4	11.5	11.3	4.4	5
	F	12.8	12.9	10.7	10.6	10.4	10.9	7.8	7.2	6.9	6.7	6	6.4

Measures

Demographic Questionnaire (in Urdu Language) was constructed by the researcher, that consisted of items which recorded the name, age, gender, religion, education, marital status, occupation, monthly income, parental history of psychological illness, and duration of illness of participants.

Anxiety Disorder Checklist (Rehman et al., 2008): It is an indigenous tool developed for Pakistani population based on DSM-IV TR criteria. It was used to screen out and diagnose the presence of Anxiety Disorders. It had two portions; screening portion and diagnostic portion. Screening portion had 7 questions, for each anxiety disorder (Panic Disorder without Agoraphobia, Panic Disorder with Agoraphobia, Specific Phobia, Social Phobia, Obsessive Compulsive Disorder, Posttraumatic Stress Disorder and Generalized Anxiety Disorder). Diagnostic portion was based on DSM-IV TR criteria for anxiety disorders. All items are scored on “yes” and “no” (score 1 and 0 respectively).

Symptom Checklist-R (Anxiety Scale) (SCL-R; Rehman, Dawood, Rehman, Mansoor, & Ali, 2009): It is an indigenous tool and was used in present study to quantify the anxiety symptoms in research participants. SCL-R responses are rated on a 4-point Likert Scale ranging from 0-3. In the present study, only Anxiety subtest was used. Validity of SCL-A with State Trait Anxiety Inventory (STAI) was reported $r = 0.47$, $p < 0.05$. The test-retest reliability of Symptom Checklist Anxiety Scale (SCL-A) for normal population was 0.81 and for psychiatric population was 0.95 (Rehman, Jagin, Dawood, Mansoor, & Rehman, 2009).

Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979): It was used to measure Perceived Parental Care (12 items) and Overprotection (13 items). Items are rated on a 4-point Likert-type scale ranging from "very like" to "very unlike". Adequate test–retest reliability has also been demonstrated in an undergraduate sample, i.e. $r = 0.86$ for Care, $r = 0.85$ for Overprotection, by Whisman and Kwon (1992). For a clinical sample, test-retest reliability was $r = 0.87$ for Care, $r = 0.92$ for Overprotection, discovered by Parker in 1981(as cited in Spokas & Heimberg, 2009). It had adequate Validity, i.e. about 0.77 with semi-structured interview of a non-clinical group assessed the extent to which members described their parents as caring or overprotective and 0.43 to 0.63 with Social Support Questionnaire (SSQ) (as cited in Spokas & Heimberg, 2009). The tool was translated into Urdu for present study by following the standard translation procedure.

Social Readjustment Rating Scale (SRRS; Holmes & Rahe, 1967): It was used to measure how much stress has been faced by participants due to stressful life events in past years. It has good psychometric properties. Reliability for normal individuals ranged from 0·96 to 0·89 and for patients ranged from 0·91 to 0·70 (as cited in Dohrenwend, 2006). For the present research, Adult Form was translated into Urdu by following the standard translation procedure.

Research Sites

The research was carried out at four main research sites of Lahore city; teaching hospitals, Departments of Punjab University, Community and markets places.

Procedure

In order to assess the comprehension level of translated questionnaires and analyze the possible difficulties in research, a pilot study was conducted on 20 adults (10 from clinical group and 10 from control group). Feedback showed that the comprehension level of all questionnaires was adequate, no fatigue and boredom was reported. Administration of all questionnaires (Demographic Questionnaire, Anxiety Disorders Checklist, SCL-A, PBI and SRRS) took approximately 20-25 minutes.

Initially data from clinical group was taken. Individual administrations were done. Written informed consent was taken from each participant. Once the data was collected from clinical group, control group data was gathered from university students, community and markets places. In community and markets, verbal and written informed consent was taken from each participant. During data collection from Punjab University departments, it was observed that some of the participants fulfilled the diagnostic criteria of some of the anxiety disorders, and it was validated by Anxiety Disorders Checklist. That portion of data (16 adults) was later on included in clinical group because they met the criteria required for clinical group. The data collection process was completed in two months.

Statistical Analysis

Statistical Program for Social Sciences (SPSS- 14 version) was used for statistical analysis. Frequencies, means, standard deviations, independent sample t-tests, step wise regression analysis was computed.

Results

Demographics

The sample was divided into two groups. Both clinical and control groups were matched on age, gender and education. Majority of the participants were Muslims in both groups. In clinical group 24 (12 %) adults were illiterate and 276 (88%) adults were literate, with mean education of 10.46 years. In control group, 14 (7%) adults were illiterate and 286 (93%) were literate with the mean education of 10.43 years. Majority of participants were Muslim in both groups; about 98.5 % in clinical group and 98% in control group. In clinical group, about 77 (38.5%) participants were unmarried, 105 (52.5%) individuals were married, 12 (6%) adults were widow and 6 (3%) females were divorced. Alternatively, in control group, 64 (32%) individuals were unmarried. 129 (64.5%) participants were married, 6 (3%) adults were widowed and 1 (0.5%) females were divorce.

Comparisons of Matched Groups

Table 2

Independent sample *t*-test for difference between Clinical and Control Group on Father and Mother Care, Father and Mother, Overprotection and Stressful Life Events.

Test Variables	Groups	*M*	*SD*	*t*	*p*
Father Care (PBI)	Cl	19.14	7.5	-11.14	.00*
	Co	27.05	5.77		
Father Overprotection	Cl	22.96	6.5	13.96	.00*
(PBI) Father Overprotection	Co	13.76	6.01		
Mother Care (PBI)	Cl	20.78	7.04	-12.58	.00*
	Co	28.61	4.80		
Mother Overprotection	Cl	24.34	6.30	18.22	.00*
(PBI)	Co	13.10	5.65		
SRRS	Cl	446.22	275.67	7.68	.00*
	Co	236.89	269.01		

* $p < 0.05$, PBI = Parental Bonding Instrument and SRRS = Social Readjustment Rating Scale

Table 2 showed that the participants of clinical group perceived their fathers and mothers significantly more overprotective than the participants of control group. It also revealed that the participants of clinical group perceived their fathers and mothers significantly less caring than the participants of control group. For Stressful Life Events, the participants of clinical group scored significantly higher on the Social Readjustment Rating Scale as compared to the participants of control group.

Association between Test Variables

Pearson Product Moment Correlation Analysis was carried out on clinical group to discover any positive or negative correlation between test variables. Table 3 revealed that anxiety scores negatively correlated with father care and mother care. Whereas positive correlation was found with father overprotection and mother overprotection. Similarly, for stress and anxiety also positively correlated.

Table 3

Pearson Correlation Coefficients between SCL-A, PBI and SRRS scores.

	SCL-A	Father Care	Father Over-protection	Mother Care	Mother Over-protection	SRRS
SCL-A	1					
Father Care (PBI)	-.18**	1				
Father Overprotection (PBI)	.15*	-.48**	1			
Mother Care (PBI)	-.16*	.37**	-.33**	1		
Mother Overprotection (PBI)	.28**	-.26**	.59**	-.49**	1	
SRRS	.23**	.01	-.01	-.01	.01	1

Note. SCL-A = Symptom Checklist - Anxiety Subscale, PBI = Parental Bonding Instrument and SRRS = Social Readjustment Rating Scale,
** Correlation is significant at the 0.01 level (1-tailed).
* Correlation is significant at the 0.05 level (1-tailed).

Predictors for Anxiety Level

Backward Linear Regression Analysis was carried out on clinical group, to evaluate that the parental overprotection and stressful life events as risk factor for anxiety level in adulthood (Table 4). Regression analysis carried out on clinical group showed that only two out of five test variables, predict anxiety in adult age. Mother overprotection positively predicted while father care negatively predicted anxiety in adult age. Between these two variables, mother's high overprotection is better predictor of anxiety than father's low care. Whereas R^2 value was not very strong ($R^2 = .12$); it depicted that only 12% of variance in anxiety level was due to high maternal overprotection and low paternal care.

Regression analysis also revealed that SLEs did not predict maintenance of anxiety symptoms in adulthood in the clinical group.

Table 4

Regression Analyses with parental care, parental overprotection and stressful life events as predictor of anxiety level.

Variables	*B*	*SEB*	*β*	*F*	*t*
Father Care (PBI)	- .27	.12	-.165 *	9.49	-2.24
Mother Overprotection (PBI)	.47	.14	.243*		3.29

Note. $R^2 = .12$, ? $R^2 = .09$, B = unstanderdized coefficient, SEB = standard error of unstanderdized coefficient, β = standardized coefficient beta, * = $p < 0.05$, PBI = Parental Bonding Instrument and SRRS = Social Readjustment Rating Scale.

Discussion

In the present study, it was hypothesized that the participants of clinical group would perceive their mothers significantly more overprotective than the participants of control group. The present hypothesis was verified statistically. Previously conducted studies also support the result of the present research (Taylor & Alden, 2006; Wilde & Rapee, 2008). So it seems that people in Pakistan also succumb to anxiety disorders as a result of maternal overprotection, like the people in western cultures.

The current findings revealed that adults in clinical group perceived their fathers as more overprotective than the participants of control group. These findings are similar to previous researches. Someya et al. (2000) which demonstrated that Japanese patients with panic disorder perceived their parents, particularly fathers as more rejecting and overprotective than did control subjects. In Pakistani culture, fathers are expected to be strict and authoritarian. Thus the present research also points out that due to excessive control and overprotection from parents, especially from fathers in childhood may produce anxious adults as compared to those who had healthy relations with father.

Existing findings showed that adults in clinical group perceived their mothers as less caring than the participants of control group. The present results confirmed the results of earlier finding, e.g. Someya et al. (2000) established that Japanese patients with agoraphobia reported significantly less emotional warmth and care from mothers in their childhood. Additionally, Heider et al. (2008) found that maternal care showed significant inverse associations with the occurrence of Panic Disorder With and Without Agoraphobia (PDAG), Generalized Anxiety Disorder (GAD), Social Phobia (SOP) and Specific Phobia (SP). In Pakistan, the controlling behavior of mothers' perhaps imbalances the amount of care they should give to their children. This inapt parenting probably makes the child confused about its internal strengths in crucial situations and hence increases his anxiety which is reflected through behavioral manifestation.

Another conclusion of present study was that the participants of clinical group would perceive their father significantly less caring than the participants of control group. The given assumption was earlier supported by Heider et al. (2008). Children usually consider their fathers the symbol of strength and protection. This idealization makes their fathers as a role model for them, who support them in time of danger and helped them to learn how to encounter threats in everyday life. But in Pakistani culture, the controlling and overprotective behaviors of fathers, uneven the quantity of warmth, care and love they should give to their children. Fathers in Pakistan are usually strict and punish their child on his mistakes. As a result, child is unable to take initiative due to the fear of making errors and develops low self-confidence. Such parenting style destroys the decision making power of the child in critical circumstances and distorts their threat perception. Therefore, child may develop anxiety symptoms, which may lead to anxiety disorders in adulthood.

In the present research, it was hypothesized that the participants of clinical group would score significantly higher on the Social Readjustment Rating Scale than the participants of control group. The results confirmed the hypothesis. This notion was validated by Gothelf, Aharonovsky, Horesh, Carty, & Apter (2004) who in their study found that children with OCD had significantly more negative life events in the year before onset than normal controls, and they perceived the life events as having more impact. Similarly, Lancaster, Melka, & Rodriguez (2009) had also demonstrated earlier that those who had experienced a traumatic event reported significantly higher levels of PTSD symptoms than those who had experienced a non-traumatic life event. People in Pakistan have been exposed to a lot of negative life events e.g. bomb blasts, floods, earth quakes etc. along with these traumatic events, there are lots of daily hassles that play role in adjustment difficulties. A study carried out in Lahore discovered that Adjustment Disorder with anxiety features was remarkably more prevalent in adult groups; i.e. 6 % (Rehman et al., 2008). Due to poor coping skills and lack of positive approach, they are remarkably influenced by any stressful incident, which may be further associated to the anxiety symptoms manifestation as compared to those individuals who had never been into such traumatic events or has less experience than those who scored high on SRRS.

Another major concern examined by the present study was whether the high perceived maternal overprotection would be the predictor of anxiety in adulthood. The present study supports the concept of affects of high maternal overprotection as a predictor of anxiety symptoms in adulthood that was given by the previous researches (Heider et al., 2008; Sideridis, & Kafetsios, 2008; Taylor & Alden, 2006).
Correspondingly, the findings of present study were also supported by Mofrad, Abdullah, and Samah (2009) findings, which provided evidences that the high protection by mothers is an antecedent for the experience of Separation Anxiety Disorder symptoms in children. In Pakistani culture, women are not exposed to external environment and have minimal opportunities to make decisions. The limited submissive social role blurred their abilities of risk taking, decisions making, accurate perception of threat and internal locus of control. They are afraid to change and usually have low frustration tolerance. When they become mothers, these characteristics build a parenting style, which is very controlling because mothers believed that if the child gets out of their control, he may be in danger. This parenting style discourages child's independence, risk taking, actual threat perception and decision making. The child brought up in such environment reflects the characteristics; i.e. get easily nervous, consistently worries about his social image, fear failure (Social Phobia), develop irrational fear of neutral objects and situations (Specific Phobia), catastrophizes the bodily symptoms and external threats (Panic Disorder), shows excessive worry about cleanliness, insecurity manifested in compulsive checking, perfectionism (OCD), avoids stressful situations and recollections (PTSD), experiences free floating anxiety and worries about being worried (GAD).

It was expected that high perceived paternal overprotection would be the predictor of anxiety in adulthood. The hypothesis was rejected. The research conducted by Carter, Sbrocco, Lewis, and Friedman (2001) also supports this finding. They concluded that African Americans verified a similar negative relationship between anxiety and care, but no relationship was evidenced between anxiety and paternal overprotection. Similarly, another study conducted by Wilcox et al. (2008) reported that there is no significant association between paternal overprotection and offspring's OCD. It was generally observed that in our Pakistani culture, father's role has not been warm and welcoming for the children and current research discovered that fathers in our society were overprotective. But their overprotection didn't contribute to development of anxiety disorders in adulthood. This might be because paternal overprotection was characterized by behavioral control, i.e. not giving permissions to child to stay out for long hours, not allowing child to make his own decisions and compelling child to follow discipline etc. Father overprotection is not been illustrated by psychological control, i.e. considering that the child can't take care of his self until parents are around, unlike child's independence, considering child as kid even he/she has grown up, maintaining a close proximity with child etc. Due to behavioral control, paternal overprotection might be considered as part of child training rather than anxious and overprotective parenting.

Another hypothesis of existing study was that low perceived maternal care would be the predictor of anxiety in adulthood. The hypothesis was also rejected. From a cultural perspective, one reason for such findings might be, that when proper care and warmth was not given by the mother to the children, they found other attachment figures nearby, i.e. father, grandparents (both maternal and paternal), maternal or paternal aunts or uncles (Mamoo, Khala, Phuphu or Chacha) or any elder sibling for secure attachment and emotional needs. In these circumstances, children have minimal chances of developing any anxiety disorder because lack of maternal care was compensated by any other caregiver. Similar findings were revealed by Hodges and Tizard (1989), they negated the Bowlby Attachment Theory on monotropy, i.e. institutionalized children were not significantly different from non-institutionalized children in personality development, though some qualitative differences were identified. This shows that lack of care given by mother does not play any role in the development of Anxiety Disorders, because the child can find any other attachment figure and develop somehow normally.

Furthermore, an important issue focused in the current study was that the low perceived paternal care would be the predictor of anxiety in adulthood. This supposition was found to be true. Previous literature also supports this postulation (Heider et al., 2008; Sideridis & Kafetsios, 2008). In Pakistani society, the controlling and overprotective behavior of fathers overweight the quantity of warmth, care and love they should give to their children. This inconsistent parenting style can have onus on the decision power of child in critical circumstances; and therefore child may develop anxiety symptoms, which may lead to anxiety disorders in adulthood.

Finally, it was hypothesized that Stressful Life Events would be the predictor of anxiety in adulthood. This assumption was rejected. This result of the present study was not supported by previous literature (McLaughlin & Hatzenbuehler, 2009; Ollendick, Langley, Jones, & Kephart, 2001). The present research findings did not match with the previous studies because all researches had some additional variables (neuroticism, extraversion, negative attributional styles, avoidant coping and emotional dysregulation etc). The association of stressful life events and anxiety symptoms may have been intervened by these variables. These additional variables might be having mediating, moderating or interacting effects on anxiety symptoms with respect to stressful life events. Secondly, SRRS was only translated for the current study and not adapted according to Pakistani culture. In our society, death of spouse was not that much stressful (Score 100 on SRRS) as compared to change in financial conditions and trouble with in-laws (Score 38 and 29 respectively). Due to this, although participants scored very high on SRRS quantitatively, but qualitatively they are not that stressed to have a chance of developing and maintaining any illness (physiological and psychological).

In conclusion, the present study found that people with anxiety disorders perceived their parents more overprotective and less caring as compared to those who had not diagnosed with any anxiety disorder. Moreover, parental overprotection and experience of stressful life events positively correlated with anxiety level, whereas, parental care negatively correlated with anxiety level in adults. The major findings of current research were that the maternal overprotection and paternal low care played a significant role in the development of anxiety symptoms in adulthood.

Limitation and Suggestions

Parental overprotection was assessed through retrospective reports, and can be biased because childhood memories can fad over time. That is why longitudinal studies are necessary for causal relationship.

Other factors such as parental education, parental illness, individual's personality characteristics, individual's education and social background etc, which might act as mediators or moderators were not taken into consideration. It is suggested to develop theoretical models through qualitative research for in-depth analysis.

In present study, only age, education and gender were matched for comparative groups. It is recommended that for Retrospective Ex post-Facto Design, more variables should be matched for increased validity of results, e.g. socioeconomic status, occupation, family history of psychological illness etc.

The clinical group consisted of participants with Anxiety Disorders and co-morbidities were not ruled out, which might distort the research results. It is recommended that patients suffering with Anxiety Disorders and no comorbid disorder

can be selected in the future research to find out the association of parental overprotection and anxiety symptoms.

Majority of participants with anxiety disorders were taken from hospitals and all those who lived in general population were not part of sample. Therefore, it lacks the representation of population (all people with anxiety disorders). It is advised to take sample from both hospitals and community for adequate representation.

Due to limited resources and permissions issues, all hospitals of Lahore city were not represented in the sample. It is proposed that sample should be taken from both government and private hospitals, so that the data represents all socioeconomic classes.

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Coping, Self-Esteem and Quality of Life of Women with Infertility

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The aim of the present study was to investigate the relationship among coping, self- esteem and quality of life of women with infertility. A sample of 100 women aged above 25 years (M = 30, SD = 4.34) diagnosed with infertility was included. Coping strategies Questionnaire, Rosenberg self-esteem scale - Urdu version and quality of life Brief - Urdu version were used. In the present study Pearson Product Moment Correlation was run for analyzing the relationship between the variables. Coping strategies and quality of life had some significant relationship. A positive correlation was found between Active distracting coping and psychological health related quality of life. A negative correlation was found between Active avoidance coping and psychological health domains of quality of life. Furthermore negative correlation was identified between Avoidance focused coping and psychological health, social relationships and environmental related Quality of life. The results seem to indicate that more the avoidance-focused coping women use the poorer is their quality of life. It can be implied that quality of life of women with infertility needs special attention and healthy coping can help them to better cope with the distress related of infertility.

Keywords: infertility, coping, self-esteem, quality of life

The present study aimed to observe the relationship between coping, self-esteem and quality of life of women with infertility. According to systematic analysis of word wide region in 2010, 48.5 million (45.0 million, 52.6 million) couples were found affected from infertility, the figures are increasing at a faster rate. Furthermore, high prevalence was found in south Asia, Sub Saharan Africa, North Africa/Middle East, and Central/Eastern Europe and Central Asia (Mascarenhas, Flaxman, Boerma, Vanderpoe, & Stevens, 2012). It has been observed that infertility is also the major reproductive problems in Pakistan. In a survey done in Islamabad, in 7628 women 534 were diagnosed with infertility and 7% prevalence was found (Shaheen, Subhan, Sultan, Subhan, & Tahir, 2010).

Infertility primarily refers to the biological inability of a person to conceive after twelve months of unprotected intercourse (Daniluk, 2001). It may also refer to a women's incapability to carry a pregnancy to full term. The time limit of one year is given as normally a couple may need twelve months to achieve conception (Chohan, 2000). Primary infertility is the inability to conceive whereas secondary infertility is the fertility problem after at least one conception (Reid, 2010).

There is a trend in Pakistan that in couples with infertility issues, the blame is automatically placed on the women, even without any investigation of the reasons. Moreover, the label threatens her status in society. The consequences may be severe such as the husband marrying again, giving divorce, or depriving the woman from her inheritance and if these things are not done she may be emotionally, physically or mentally harassed. These consequences are faced in both the cases i.e. primary infertile and secondary infertile women (Parveen, Ahmed, Kausar, Musharaf, Masood, & Afzal, 2008).

Infertility is a source of distress for woman in the society and stigmatizes women with infertility at personal, interpersonal and emotional levels. The women with infertility mostly bear these societal pressures (Fido, 2004). Woman experience exclusion from ceremonies and important events just because they are infertile. Fear of being divorced or of being separated from their husbands become one of their greatest concerns. Usually the husbands of infertile women are pressurized by their family and friends to remarry. These pressures force the women with infertility to feel isolated and undergo great psychological turmoil (Inhorn, & Balen, 2002). Pakistani women face adverse psychosocial, social, emotional and physical consequences of infertility. Sami and Ali (2006) reported that Pakistani women with infertility experienced mental stress due to 70% physical abuse and 60% of verbal abuse.

Furthermore when a woman is faced with the experience of infertility, it is commonly interpreted as a stressor that needs to be managed. According to Lazarus and Folkman's (1984, as cited in Jordan, & Revenson, 1999) stress and coping theory, cognitive or behavioral coping strategies are used to manage stress, and stress occurs as events in the environment are perceived by an individual to exceed his or her resources.

Along with poor coping women with infertility tend to have self-esteem issues. Rosenberg (1965) theorized self-esteem as positive or negative attitude toward self that is influenced by social and cultural factors (as cited in Mruk, 2006). Self -esteem is what one feels about one's self and how one thinks about one's own selves. It may include one's looks, one's successful relationships with others, one's capabilities and positive attitude toward future (Powell, 2003).

As infertility is referred as a major life stressor so its experience may affect many areas of functioning. One of the main impact infertility has on the women's self-esteem. Female's often report that being diagnosed infertile makes them feel physically defective and it eventually affects its overall body image (Abbey, Andrews, & Halman, 1992).

Quality of life is also impacted when one is stressed: that consists of four major domains. The first domain is physical health in which an individual's overall health is seen: that is how much medical aid one needs, how much energy and capabilities are present in an individual and how much sleep one requires. The second domain is

psychological health in which the individual's overall self-esteem and one's religion and beliefs are included. The third domain is social relationships which refer to an impact of social support and sexual activities of an individual. The fourth domain of environment considers the environment of home, freedom, physical safety and security, health and social care (Skevington, Lotfy, & O'Connell, 2003). With its emotionally threatening stressful nature and high cost, infertility is a life crisis for women. It is not only a gynecological illness but also a bio-psycho-social health problem. Generally, infertility has profound psychosocial impacts and it is consistently associated with decreased scores in quality of life (QoL) domains (Beji, & Onat, 2010). Therefore, it can be concluded that addition to the physical implications of infertility, psychological and social functioning may also be disturbed. The stress and loss of child issues involved with infertility also have negative consequences on individual's psychological well-being and overall quality of life.

Method

Participants

The sample consisted of 100 women diagnosed with infertility by gynaechologists. Women with primary and secondary infertility were approached at gyneachological department of public hospitals and private hospitals in Lahore. The women were under treatment since M = 4.70 years. They all were above the age of 25 years (M = 30; SD = 4.38), married for more than a year (M = 6.94, SD = 4) and under treatment since M = 4.70 years.

Materials and Procedure

To measure the three research variables the participants were asked to complete the following tools:

Coping Strategies Questionnaire: It was developed by Kausar (2001) which consisted of 62 items and was developed for Pakistani population. It was based on which theoretical model proposed by Lazarus. It included four factors: Active practical coping, Active distractive coping, Avoidance focused coping and Religious focused coping with internal consistency reliabilities of 0.72, 0.75, 0.76 and 0.70 respectively (Kausar, 2001). The overall Cronbach alpha reliability of the tool in the present study was 0.87.

The Rosenberg Self-Esteem Scale: It provides measure of global self-esteem. It is made up of 10 items. It refers to self-respect and self-acceptance rated on a 4-point Likert-type scale, ranging from 0 (totally disagree) to 3 (totally agree). The reliability of the tool is 0.87. In present study, Urdu translated version was used after taking permission from the respective author (Ghafoor, & Mohsin, 2011). The Chronbach alpha reliability of the tool in the present study was 0.38.

The WHOQOL-BREF: Urdu version was used in the present study to measure the quality of life of women with infertility (WHOQOL group, 1999). It contains a total of 26 items and has four domains included are general physical health, psychological, social relationship and environment with Chronbach's alpha each domain 0.84, 0.83, 0.84 and 0.83 respectively (WHOQOL group, 1999). In the present study the overall chronbach's alpha calculated was 0.84.

Ethical Consideration

Once the tools were selected for the present research the administrative authorities of hospitals were approached for permissions and help in recruiting the participants. The doctors on duty were assigned the task of referring women who fulfilled the research criteria. The referred participants were then briefed about the aims and objectives of the present study. They were informed that their personal information would be kept confidential and will be used for academic/research purpose only. They were also given the right to withdraw from the research at any point if they wanted to. A total of 120 women were referred, 20 were not included due to either they left before filling all the questionnaires. The participants took averagely 40 minutes to complete the three questionnaires. It took three months to complete the data.

Results

The first analysis result indicated that no significant relationship was found between Active Practical Coping and all domains of Quality of Life. Significant positive correlation was found between Active Distractive Coping and Psychological Health domain of Quality of Life ($p < .05$). The results further indicated that Avoidance Focused Coping was significantly negatively related with three domains of Quality of Life i.e. Psychological Health ($p < .01$), Social Relationships ($p < .01$) and Environment ($p < .01$). The finding indicated that those infertile women who were using Avoidance Focused Coping showed low scores on their psychological health, social relationships and their environment satisfaction. No significant relation was found between Religious coping and domains of quality of life.

Table 1
Correlation between Coping Strategies and Quality of Life

Measures	1	2	3	4	5	6	7	8	*M*	*SD*
1 APC	-	.39**	.42**	.40**	-.07	-.00	.01	.04	177.06	21.85
2 ADC		-	.06	.19	.00	.23*	.08	.13	157.67	19.59
3 AFC			-	.46**	-.19	-.37**	-.36**	-.30**	161.06	19.31
4 RC				-	-.07	-.09	-.06	-.12	191.19	21.30
5 Physical health QOL					-	.57**	.54**	.63**	25.94	4.89
6 Psych health QOL						-	.66**	.60**	21.82	3.90
7 Social relationship QOL							-	.51**	11.20	2.50
8 Environment QOL								-	29.79	5.43

Note. APC = Active Practical Coping; ADC = Active Distractive Coping; AFC = Avoidance Focused Coping; RC = Religious Coping; QOL = Quality of Life.
**p < .01 *p < 0.05.

The second set of analysis showed that there was no significant relationship between self-esteem and physical health, psychological health and social relationships domains of quality of life. However there was a significant positive relationship between self esteem and environmental domain of life.

Table 2
Correlation between Rosenberg Self Esteem and Quality Of Life

Measures	1	2	3	4	5	*M*	*SD*
1 RSE	-	.08	.16	.13	.34**	13.61	2.01
2 PHQOL		-	.47**	.29**	.49**	25.94	4.89
3 PSYQOL			-	.58**	.55**	21.82	3.90
4 SRQOL				-	.51**	11.20	2.50
5 Environment QOL					-	29.79	5.43

Note. RSE = Rosenberg Self Esteem; PHQOL = Physical Health Quality of Life, PSYQOL = Psychological Health Quality of Life, SRQOL = Social Relationships Quality of Life
**p < .01.

The results showed that there was no significant relationship among the different coping strategies of infertile women and their self esteem.

Table 3
Correlation between Coping Strategies and Rosenberg Self-Esteem

Measures	1	2	3	4	5	*M*	*SD*
1 RSE	-	-.09	-.00	-.13	-.04	19.30	4.64
2 APC		-	.39**	.42**	.40**	177.06	21.85
3 ADC			-	.06	.19	157.67	19.59
4 AFC				-	.46**	161.06	19.31
5 RC					-	191.19	21.30

Note. RSE = Rosenberg Self Esteem; APC = Active Practical Coping; ADC = Active Distractive Coping; AFC = Avoidance Focused Coping; RC = Religious Coping.
**p < .01.

Discussion

The experience of infertility is distressing for women. In Pakistani society women's role after marriage is primarily recognized as bearing child. Infertility puts the status of women at stake and they undergo immense stress and make relentless effort to cope with the transitions brought forth by the treatment process, relationship patterns and changing attitude towards life. This study aimed to investigate the relationship of coping strategies, perceived self-esteem and quality of life of women with infertility. The analyses showed some significant relationships of coping strategies with quality of life in all domains.

This highlights that the type of coping determines the quality of life of women with infertility. It was observed that women with Active Distracting Coping reported better psychological health related quality of life. It indicates that those women who adopted adaptive distraction to infertility related distress also tended to have less impairment in psychological functioning. On the contrary, with Avoidance Coping the women reported impaired psychological health, physical health and social relationship related quality of life. A previous study conducted by Davis, Catherine and Dearman (2006) explored the relationship of coping styles of women with their emotional wellbeing. They showed that different coping styles affect overall wellbeing of an individual. A research conducted by Adler and Boxly (1985) concluded that fertile, infertile and formerly infertile patients had no difference in coping styles. Another well supported findings of study by Monga, Alexandrescub, Katzb, Steinc and Ganiatsd (2003) concluded that being diagnosed as infertile affects the quality of life. They found impaired quality of life reported by women diagnosed with infertility. Hasnain, Abd-El-Raheem and Shahin (2010) concluded that women with infertility reported impaired quality of life and sexual function.

In the present study positive significant relationship was observed between active distractive coping and psychological health domain of quality of life. Whereas avoidance focused coping's relation was found to be negatively significant with three domains of

quality of life that are psychological health, social relationships and environment. This showed that those women with infertility who reported avoidance focused coping showed low scores on their psychological health, they had problems in their social relationships and were not satisfied from their environment. According to the latest theory of stress of Lazarus and Folkman (1986), "Psychological stress refers to a relationship with the environment that the person appraises as significant for his or her wellbeing and in which the demands tax or exceed available coping resources" (Lazarus & Folkman 1986, p. 63). According to this theory different individual appraise stress differently and eventually their coping styles are also different. Individuals with better coping skills deal with their problems effectively and take the environment as a challenge. In present study significant positive relationship of Avoidance coping with all domains of Quality of life, inferred that the ineffective coping causes dysfunction in the quality of physical, psychological health, social relationship and interaction with an environment. Another hypothesis regarding the relationship between self-esteem and quality of life of women with infertility was also made. On the whole, according to the results there was no significant relationship between the three domains of quality of life i.e. physical health, psychological health and social relationship with self esteem. However there was a significant relationship between environment domain and self-esteem. The self-esteem was not observed to be low of the infertile women so it eventually did not affect the quality of life of them. The partial rejection of the hypothesis could be considered due to small sample size. Secondly the women participants may have been denying their problems or could have been defensive. A research conducted by El-Messidi, Al-Fozan, Lin Tan, Farag and Tulandi (2004), investigated that treatment failures of women with infertility affected their quality of life and as in the present study the patients did not encounter any failures regarding their treatments so their self-esteem did not deteriorate which eventually did not affect their quality of life.

Another study conducted by Bringhenti, Martinelli, Ardenti and La Sala (1997) concluded that it is not necessary that every infertile women entering the IVF treatment must show signs of psychological distress. The personality of the infertile woman, her relationship with her husband, her high self esteem and her willingness to adopt a child as the last resort; can eventually help her to deal effectively with her condition and treatment. It is probable that this may have been the case in the present study, as the sample consisted of patients under treatment for infertility that might be the reason of positive self-perception. The third hypothesis was that there would be relationship between coping strategies of women with infertility and self-esteem. The results showed that self-esteem of the sample had no significant relationship with the type of coping strategies they were using. The possible reason could be that the sample was taken from hospitals where proper treatment was available. These women were undergoing treatments and they might be positive regarding themselves and treatment. Secondly, the sample mostly comprised of the females who were married mostly for 10 years, it is likely that the family support has been established substantially during this period.

Thirdly, most of the infertile women informally or formally reported having satisfied relationship with their in laws and husband. This assured that their social support was strong which ultimately helped them in building better and positive image of their selves. The sample included both types of infertility (20 % primary, 80 % secondary), differences of types of infertility could bring useful information on types of coping strategies, level of self-esteem and quality of life. Comparative study needs to be done to explore the differences of women experienced with distress of infertility and coping and quality of life and control with general medical condition or other gynecological condition. Women did not report very low scores on self-esteem. It might be the explicit responses on Rosenberg's Self-esteem questionnaire did not capture the subjective, internalized perception. Qualitative inquiry of phenomenological experiences of women to their infertility diagnosis, distress and impact on their lives will give substantial information to formulate the psychotherapeutic guidelines.

Conclusion

On the basis of the above results it could be concluded that the women with infertility using avoidance focused coping in dealing with infertility related stress experienced impairment in their quality of life in the areas of psychological health, social relationships and adjustment to their environment.

Implications

Finding that coping strategies, self-esteem and quality of life are interlinked in women with infertility highlights the intervention implications for such women. Awareness campaign for the women with infertility for the society and the family can be initiated so that the stigma and label could be avoided, so that these women end up having the same amount of respect and care as any other women without any discrimination. These programs need to be initiated in collaboration with the infertility centers and mass media.

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Cognitive Behavior Management of Insomnia: A Case Study

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This case illustrates the Psychological Management of Sleep and Anger Problem with Cognitive and Behavioral Techniques. Assessment was done through Beck Depression Inventory (BDI II) and Sleep Diary. Considering the results of assessment, and complaints, Mr. A.U. (not his true initials) was diagnosed with Insomnia. Psychotherapeutic Intervention was comprised of Cognitive and Behavioral Techniques which showed marked decrease in the symptoms. Improvement was also confirmed by the Psychological Assessment done at Pre and Post Level of therapy.

Keywords: psychological management, cognitive and behavioral techniques, psychological assessment, beck depression inventory, insomnia.

Primary insomnia is a condition of sleeplessness that cannot be attribute to a medical, psychiatric, or environmental reason. Insomnia is quite prevalent, with associated daytime cost of impaired job performance, life quality, and increased risk of co-morbidities including Depression. Insomnia is a frequently reported in one third of the adult population (Morgenthaler et. al., 2006).

The principal symptom according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) is trouble initiating or maintaining sleep, or distress from non-restorative sleep, for at least 1 month. The second criterion is that the sleep trouble (or related day time weariness) sources clinically noteworthy suffering or impairment in social, job-related, or other significant areas of performance. The third condition is that the sleep disturbance not happened exclusively through the course of narcolepsy, breathing-related sleep disorders, circadian rhythm sleep disorder, or a parasomnia. The fourth decisive factor is that the disorder not occurred exclusively during the course of another psychological disorder (e.g., major depressive disorder, generalized anxiety disorder, a delirium). Finally, the fifth criterion is that the trouble is not be due to physiological effects of a substance (e.g., drug abuse, medication) or a general medical condition (American Psychiatric Association, 1994).

Case Study

Participant

The history of client's illness goes back to year 2006. He was preparing for his graduation exams and he used to remain awake whole night and after his exams ended, he was unable to resume his normal pattern of sleeping. He had trouble in falling asleep and remained awake for most part of the night. He reported that he got maximum of 3 hour

sleep and many times in a week he had sleepless nights. This deprivation of sleep caused decline in his academic and later, in his professional performance. He felt stressed and lack of energy. He reported that he got irritated easily and remained worried. When he was unable to sleep, he used to spend time on internet all night. The sleep disturbance remained periodic. He reported that the disturbance in sleep increased whenever he had any stress related to exams, job interviews, job evaluation, and any interpersonal problems with his girlfriend. He also reported that he had a breakup with his girlfriend one month before due to which he felt low and sad. He wanted to marry her but her family was not willing. He missed this relation and in frustration he used to punch the sand bag.

Background Information

Mr. U.A. belongs to a middle socioeconomic class. His father is 59 years old, lawyer by profession. He is reported to be aggressive and temperamental. His mother is 52 years old, retired as a government school teacher. They are reported to be protective in nature as client being their only son.

Mr. U.A. has three sisters and he is third born. No specific financial stressors reported in the past. He reported sleep walking at the age of 14 years which remained for 1 year on occasional basis. His schooling started at the age of three and a half year. He reported himself to be obedient and average student. He got B grade in Matriculation and Intermediate. He passed his Bachelors Degree with second division and after that he did LLB. He reported to be a social and a regular smoker.

Assessment

For Formal and Informal Psychological Assessment following scales were administered at Pre, Mid and Post level of Therapy. Informal Assessment was done by taking Subjective Ratings of the Problem, Sleep Diary and Baseline for Anger. Formal Assessment was done by administering Beck Depression Inventory (BDI- II) and Strait Trait Anger Expression Inventory (STAXI).

Table 1
Showing Score on BDI II at Pre Treatment Phase

Scale	Score	Category
BDI II	17	Mild

Table 2
Showing Score on STAXI at Pre Treatment Phase

Sub scales	Raw score	*t*-score	Percentile	Interpretation
S-Anger	22	70	98	Individual's anger is situation ally determine
T-Anger	21	57	76	Express Frustration
T-Anger/T	8	7	83	Quick tempered, Use Anger to Imitate other
T-Anger/R	10	55	64	Sensitive to Criticism
AX/In	18	57	80	Frequently Experience Anger but Suppress that
AX/Out	18	60	90	May be expressed as assaulting others, slamming door
AX/Cont	22	41	20	Not Interpretable
AX/EX	40	67	99	Problems in Interpersonal and at the risk of Medical Disorders.

Diagnosis

AXIS I	307.42	Primary Insomnia
AXIS II	V71.09	No Diagnosis on Axis II
AXIS III	None	
AXIS IV	Job Related Problem	
AXIS V	61-70 (current)	

Case Conceptualization

On the basis of Formal and Informal Assessment client was diagnosed with Primary Insomnia. As reported client has difficulty in falling asleep and reported excessive early awakening, with daytime impairment or distress.

The client has predominant complaint of difficulty in initiating sleep. He stays awake at bed for 4 to 5 hours. The sleep disturbance, associated fatigue and headache significantly affect the daily routine. The disturbance is not due to the effect of any substance/drug. The sleep difficulty does not exclusively occur during the course of other sleep disorder (DSM IV, 2000).

A practical model for understanding how insomnia may develop and why it may persist as a chronic condition was first elucidated by Spielman et.al. (1987). Spielman's model (1987), commonly referred to as the "3-P model", incorporates the impact of various traits (predisposing factors) and life stresses (precipitating factors) in the development of insomnia. It also recognizes that chronic insomnia is maintained (unintentionally) by maladaptive coping strategies (perpetuating factors). Thus, a person may be prone to insomnia due to these maladaptive cognitions. In the case of Mr. U. A. the predisposing factor was his anxious nature. The exams were considered to be the precipitating factor as well as his maladaptive coping mechanisms like spending time on internet had been maintaining factor for his insomnia.

Management Plan

Management plan comprised of Behavioral and Cognitive Techniques.

Relaxation Training (16 Muscle Progressive Relaxation Exercise) was used to improve Muscle Relaxation, Sleep and to Decrease the Irritability and Anger. Sleep Hygiene Instruction was used for the systematic process of encouraging those behaviors that optimize sleep quality, while discouraging those behaviors that antagonize sleep. Anger Thermometer and Distraction Techniques was used to deal with the anger outburst of the client in healthy way. Cognitive Restructuring was used to deal with the anger of the client. Thought Replacement Sheet and Evidence For and Against was used for Cognitive Training of the client.

Ten therapeutic sessions were conducted with the client during the course of therapy. Per week one session was conducted.

Session Summary

Below is given a bird eye view of therapeutic sessions.

In first session history of client's problem was taken. In this session the nature, duration and impact of the sleep problem was fully explored. Subjective Ratings were taken around problematic areas. Therapist also explained how therapy will be preceded and the importance of client's active participation in the therapy was emphasized in this session.

In second session, Formal Assessment was done. During this session, the structure of Sleep Management Program was described to the patient. He was told that Psychological Therapy can help to reduce the sleeping tablets quantity and can improve his sleep. An information sheet was provided at the end of the session about Sleep Management Program. Sleep Diary was given to the client for keeping a record of daily sleep.

In third session, the principles of Sleep Hygiene were explained, and any specific contraindicated habits (tea/coffee drinking close to bedtime, inappropriate exercise regimens, etc.) were addressed and discouraged. Guided by estimates of sleep efficiency (i.e. the proportion of time spent in bed asleep) available from the patient's sleep diaries, optimal bedtimes and getting-up times were also proposed in this session, and a target reduction for 'time in bed' was agreed. This sleep restriction aims to reduce the amount of time spent in bed awake, and to align more closely the patient's estimated total sleep time (available from the sleep diary) per night with the amount of time he actually spends in bed.

In fourth session, Sleep Diary was checked by the therapist. Sleep Hygiene instructions were revised in the session. Client was asked to describe how he had incorporated those instructions in his routine and what impact they have caused.

According to the client, his sleep quality was improved and the amount of the time spent awake in bed was also reduced. Client was asked to maintain sleep diary and to continue to follow Sleep Hygiene Instructions. Client was then introduced to, and instructed about Progressive Relaxation Technique. Written instructions about Relaxation Exercise were provided at the end of the session. He was asked to take a rating of muscle tension before and after relaxation exercise. He was asked to practice the exercise twice a day.

In fifth session, the information supplied in the Sleep Diary, Sleep Management was reviewed and therapeutic messages from earlier sessions were reinforced. Distraction Techniques were told to the client to deal with is anger in an effective manner. Anger Thermometer was given in order to monitor the level and intensity of his anger and to practice Distraction Techniques at appropriate time. Subjective Ratings on Anger were taken in the session and client was asked to note down the ratings of anger for whole week. Cognitive Errors were identified by providing him a Checklist of Cognitive Errors. Thought Replacement Sheet was explained with example to the client and his Negative Automatic Thoughts were replaced with rational and logical ones in session. Thought Replacement Sheet was also given for home work as well.

Sixth session was started by taking Feedback of previous session from the client. He was practicing distraction techniques and they were helpful for him in managing his anger and irritability. Cognitive Errors were identified by providing him a Checklist of Cognitive Errors. Thought Replacement Sheet was explained with example to the client and his Negative Automatic Thoughts were replaced with rational and logical ones in session. Thought Replacement Sheet was also given for home work as well.

In seventh session, Thought record sheet was reviewed. Client has filled the sheet appropriately. One example from the sheet was discussed in the session. Client experienced anger while using internet as it reminds him of his girlfriend. With the help of therapist, client was made to recognize his cognitive error and replaced dysfunctional thought with functional and rational one.

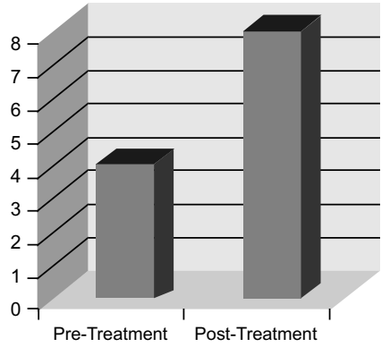

Fig I: Comparison of sleep hours at the onset and end of the therapy.

In eighth session post assessment was done. BDI- II and STAXI was administered for Post Assessment purpose. Sleep Diary was discussed with the client, which showed marked improvement in the sleeping hours of the client. Client managed to sleep 7 to 8 hours per day. He was asked to keep practicing Sleep Hygiene Instructions and 16 Muscle Relaxation Exercise as before on regular basis. The concept of follow up session was introduced to the client.

In ninth session. client was encouraged to come for follow up session for making his progress long lasting. Therapy blue print was provided to the client.

Result and Discussion

Post Treatment Assessment of the Mr. U.A. had showed that his sleep problem has decreased. Sleep Diary and Sleep Hygiene Instructions proved helpful in dealing with the client's problem. He managed to increase his sleeping hours from 4 hours to 8 hours. The sleep timing is shown in following graph. Due to improved sleep his performance in job was also reported to be satisfactory.

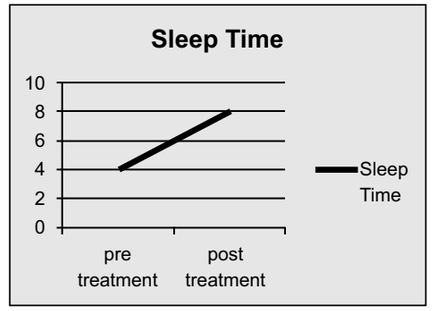

Figure I: Graphical Representation of Improvement in Sleep Hours

The anger and irritability was also decreased with the 16 Muscle Relaxation Exercise and Distraction Techniques. The weekly ratings of relaxation are summarized in graphical form.

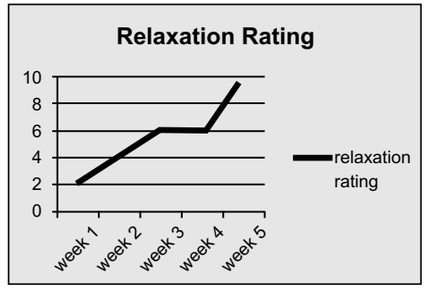

Figure I: Graphical Representation of Rating on Relaxation

His Cognitive Errors were evaluated and weighed against reality. He was able to identify that he used to minimize positives among his friends and this thing causes problem in his interpersonal relationship. With the help of Thought Replacement Sheet and Anger Thermometer, Mr. U. A. was able to overcome his situational anger and difficulties in interpersonal relationships.

Post assessment results of STAXI and BDI-II are summarized below.

Table 3

Showing Score on BDI II at Post Treatment Phase

Scale	Score
BDI II	12

Table 4

Showing Score on STAXI at Post Treatment Phase

Sub scales	Raw score	*t*-score	Percentile	Interpretation
S-Anger	12	54	85	Individual's anger is situation ally determine
T-Anger	15	45	49	Normal Range
T-Anger/T	6	53	60	Normal Range
T-Anger/R	6	38	16	Normal Range
AX/In	12	43	25	Normal Range
AX/Out	10	37	10	Normal Range
AX/Cont	12	22	1	Normal Range
AX/EX	31	66	87	Problems in Interpersonal and at the risk of Medical Disorders

Insomnia is a common and considerable health concern that is brought about by dysfunctional beliefs regarding sleep, anxiety, and a many sleep-disturbing compensatory practices. CBT tackles these perpetuating factors and has become known as a best treatment choice for Primary Insomnia (Edinger, & Means, 2005). The efficacy of the Cognitive Behavior Therapy has been established for treating insomnia with the help of different well-designed studies. The collective findings of the different studies (Edinger, & Sampson, 2003; Espie, Inglis, Tessier, & Harvey, 2001) have suggested that CBT improves sleep quality, decreases symptoms of depression and anxiety, adjusts dysfunctional beliefs and reduces rely on medications for sleep. Some groundwork data implies that four individual therapeutic sessions conducted at two week intervals may maximize the clinical benefit for the client with insomnia (Edinger, Wohlgemuth, Radtke, & Marsh, 2004).

The CBT has produced improvements in sleep and other problems of the client that have been evaluated subjectively and objectively. There are certain limitations of this

case study. Due to the job nature of Mr. U.A. was not able to maintain the follow up sessions. So follow up is recommended for the maintaining improvement gains. The improvement in client's problem was only reported by him subjectively. Objective account could be taken from any family members, who could monitor his sleep patterns and anger out bursts. Large sample size and follow up sessions would help to establish the validity of the findings.

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