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AGGRESSION IN ADOLESCENTS AS A FUNCTION OF PARENT-CHILD RELATIONSHIP

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ABSTRACT

The present study primarily focused on the nature of perceived parent-child relationship quality as determinant of aggression in adolescents. The test sample included 512 boy and girl students of secondary and higher secondary level falling within the age range of 14-18 years. The nature of perceived parent-child relationship was examined as constituting two categories i) loving, object reward, protecting, symbolic reward; and ii) demanding, indifferent, neglecting, object punishment, rejecting, and symbolic punishment. Pearson correlation revealed a negative correlation between perceived quality of parent-child relationship and level of aggression in adolescents. Multiple regression analysis showed symbolic punishment aspect of parent-child interaction to be the strongest predictor of aggression.

INTRODUCTION

Undoubtedly aggression is a major and quite common problem in adolescent population. Increased level of aggression and violence in adolescence during second decade of life has been reported frequently (e.g. Hay & Loeber, 1997). It is a physiological response resulting from frustration. This emotional response in the form of anger once aroused leads to overt acts like damage and destruction. These actions are intended to harm others. Aggression not only threatens society's peace but also affects the aggressive persons negatively, making them more vulnerable to other social problems including drug abuse, violent crimes, suicidal attempts and abusive parenting.

Although there can be so many factors predisposing adolescents towards aggression but the focus of the present study is perceived quality of parent-child

relationship as a predictor. Out of different dimensions of parent-child relationship quality are parental warmth, love, affection, support and parental reward as well as parental rejection, neglecting, punishment and indifferent behavior towards the child. As parents are the first and foremost socializing agent in the person's life so good quality of relationship with parents leads towards the healthy psychological development. Positive supportive, loving and responsive relations with parents make the child able to adjust well during adolescence. Although changes occur in parent-child relations from childhood to adolescence, still the adjustment during adolescence depends greatly on the relationship quality with parents. Adolescent wants independence from parents regarding decisions about their life. Dilemma of raising independent adolescents with sufficient parental monitoring is the major problem of this modern society. Parents can help better adjustment in adolescents by accepting their need for autonomy while encouraging them to take responsibility for their actions as well as by providing guidance, support and love in the face of challenging situations. A Technical Report to Division of Childhood and Adolescence: Public Health Agency of Canada, based on the data from two nationally representative samples of Canadian children and adolescents (The Health Behavior in School-Aged Children: A World Health Organization Cross-National Survey and The National Longitudinal Survey of Children and Youth Cycle 2) was presented by Doyle, Moretti, Brendgen and Bukowski (2004). They reported that effective parenting practices contribute to positive parent-child relationships which, in turn, contribute to healthy child development. Harsher parenting practices make children perceive their parents as more rejecting and cold towards them, and children who perceive their parents as more rejecting are more likely to show negative outcomes including smoking, alcohol use, showing aggressive acts, bullying others frequently, committing more property offences and showing more affiliation with deviant friends.

A good deal of evidence is that children whose parents are warm, loving, affectionate, responsive and supportive are less likely to engage in aggressive behaviors and other offences. These children are more likely to have good relations with others. Findings of association between parent-child relationship quality and aggression by Harrist and Ainslie (1998); and Ooi, Ang, Fung, Wong and Cai (2006) supported this proposition. Consistent with this are the findings from a study by Dexter-Deckard, Ammba-Poria, and Pike (2004), who found the evidence of negative association between dyadic mutuality (parent-child interaction) and externalizing problems, specifically when the interaction was positive.

Children's perception of their parents as less warm and more rejecting is related with harsh parenting practices; as well as more externalizing problems and aggressive behaviors have been reported in children who are physically punished and abused. Parents use punishment to inhibit inappropriate behaviors in their children, but pain and frustration caused by punishment results in aggressive behaviors in the child. Quite a few studies found the relationship between physical punishment and aggression in adolescents (Lansford, Dodge, Pettit, Bates, Crozier & Kaplow, 2002; Watson & Fischer, 2002) as well as in children (Sim & Ong, 2005). A parallel set of findings by Romano, Tremblay, Boulerice, and Swisher, (2005) pointed out maternal hostility toward the target child and punitive parenting as significant correlates of physical aggression and prosocial behaviors. McFadyen-Ketchum, Bates, Dodge and Pettit (1996) also found coercive and non affectionate style of mother-child interaction as predictor of initial level of aggression and disruption in kindergarten children. Early harsh parental discipline as predictor of later aggression, and maternal criticism as predictor of externalizing problems have also been documented by Weiss, Dodge, Bates, and Pettit (1992); and Frye and Garber (2005) respectively. Effect of physical abuse on aggressive and externalizing behavior problems has also been reported frequently in adolescents (e.g. Dodge, Bates & Pettit, 1990; Kaplan, Labruna, Pelcovitz, Salzinger, Mandel & Weiner, 1999; Connor, Doerfler, Volungis, Steingard & Mellonijr, 2003).

"Responsiveness" and "demandingness" two dimensions of parent-child relationship have also been found in the literature to be related to child's socio-psychological adjustment during this critical developmental period. Jackson and Foshee (1998) found that, the adolescents, who perceived their parents as highly responsive and highly demanding were less likely to show aggressive behaviors towards peers. Likelihood to report violent behaviors was two to three times high in adolescents perceiving their fathers and mothers as less responsive and less demanding.

Forgoing literature provides sufficient evidence to suggest a relation between parent-child relationship and aggression. But many of these researches have been carried out on children, only few involved adolescents in sample. Generalizing effects from children to adolescents is not a scientific way to describe adolescent adjustment yet not too different either in local perspective. On this assumption this study has been planned to explore the association of parent-child relationship quality with aggression in adolescents. Almost all of the studies used one or two categories of parent-child relationship quality. The

present study is extended in the way to incorporate a number of dimensions of relationship quality.

More specific goals of the present study are as follows:

1. To determine the association of perceived parent-child relationship quality with aggression in adolescents.
2. To investigate which of the ten predictor variables in parent-child relationship scale best predicts aggression in adolescents.

METHOD

Participants

Random sampling technique was used to collect data from randomly selected schools in Lahore cosmopolitan area based on the list of schools obtained from the Director of Public Instructions (DPI school) Lahore. Sample consisted of 512 secondary and higher secondary students including 255 boys and 257 girls. Only those students were included in the study, who have both parents alive, and currently living with them. Students having single parents were excluded. Those whose parents were abroad were also excluded. The age range of students was between 14-18 years.

Measures

Following scales have been used for the assessment of research variables in the study:

- Translated and Standardized version of Parent Child Relationship Scale (PCRS)
- Translated and Standardized version of Aggression Scale (AS)

Parent-child Relationship Scale

The PCRS is a 100 item scale designed to evaluate the quality of parent-child relationships as the child perceives it. It provides a composite parent-child relationship score as well as 10 subscale scores of both positive and negative dimensions of relationship including 'loving', 'object reward', 'protecting', 'symbolic reward' and 'demanding', 'indifferent', 'neglecting', 'object punishment', 'rejecting', and 'symbolic punishment' respectively. Child responds

to each item on 5 point scale ranging from "always" to "very rarely", weighted 5, 4, 3, 2 and 1 on the scale points for both parents, mother and father, separately. Each subscale yields a score worked out by summing up the scores of the ratings on each item of the subscale. Composite score on PCRS is calculated by reverse scoring of negative subscales items and then adding up the scores of each 100 items of the scale for mother and father separately. These two separate scores for mother and father are added up to yield a single score of parent –child relationship quality with high score showing good quality relations. The scale had been translated into Urdu in lexilon equivalence style as part of another study and then used in the present study.

Aggression Scale

Aggression Scale developed by Mathur and Bhatnagar, has been fruitfully used to study level of aggression in age group above 14 years of age. The scale has adequate concurrent validity (.80 in males & .78 in females) compared with "statements in questionnaire of aggression" and test re test reliability (.88 in males & .81 in females). It, in its original form, consists of 55 statements including 30 positive and 25 negative statements. It is a Likert type 5 point scale. In positive form of statements, scores are given as 5, 4, 3, 2 and 1, from 'strongly agree' to 'strongly disagree' respectively and in negative form of statements scoring is reversed as 1, 2, 3, 4 and 5 from 'strongly agree' to 'strongly disagree'. The total number of scores constitutes the final score, higher score showing higher level of aggression and lower score showing lower level of aggression. The Urdu translation of this scale done in lexilion equivalence style was used in the present study.

Procedure

With necessary permission from the heads of the schools included in the sample, the participants were properly seated and clearly briefed about the purpose and approximate time duration. The instructions were read out and the scales were administered. Pearson correlation and multiple regression analysis were carried out to find correlation and the best predictor, by using statistical package for social sciences (SPSS) program.

RESULTS

Table 1
Pearson Product Moment Correlation for Parent Child Relationship and Aggression

Pearson correlation	N	p value
-.235	512	.01

The results show a significant negative correlation i.e. -.235 between above two variables, which means adolescents perceiving good relationships with their parents show less aggression and those who perceive poor quality relations with parents express high aggression.

Best Predictor variable of Aggression among ten subscales of parent child relationship

The coefficients of multiple regression analysis were calculated to find out best predictor variable among ten subscales namely protection, symbolic punishment, rejection, object punishment, demanding, indifferent, symbolic reward, loving, object reward and neglecting in parent-child relationship.

Table 2
Standardized regression coefficients of ten subscales of parent-child relationship as predictor variables of aggression

Variables	Beta	t-value	p-value
Protection	-.129	-2.313	.021
Symbolic punishment	.208	3.922	.000
Rejection	.134	-2.194	.029
Object punishment	.038	.721	.471
Demanding	.041	-.790	.430
Indifferent	.068	1.441	.150
Symbolic reward	-.005	.079	.937
Loving	-.112	1.816	.070
Object reward	-.194	-3.475	.001
Neglecting	.077	-1.390	.165

Table 2 reveals that symbolic punishment is the best predictor of aggression among ten variables. Positive correlation shows that increasing symbolic punishment increases aggression in adolescents and vice versa. Other significant predictors are object reward, protection, rejection and loving in order of their decreasing significance.

Noticing the different best predictors in mother's and father's relations with their adolescents, it was deemed desirable to explore it further.

Best predictor in mother child relationship

Multiple linear regression coefficients to predict adolescent aggression were computed on scores of each subscale for mother only. Regression coefficients are given below in table.

Table 2
Standardized regression coefficients across ten subscales of mother-child relationship on aggression

Variables	Beta	t-value	p-value
Protection	-.120	-2.190	.029
Symbolic punishment	.215	4.234	.000
Rejection	.147	-2.547	.011
Object punishment	.035	.691	.490
Demanding	.005	.097	.923
Indifferent	.064	1.365	.173
Symbolic reward	-.016	.295	.768
Loving	-.114	2.075	.039
Object reward	-.174	-3.289	.001
Neglecting	.046	-.866	.387

Results reveal that symbolic punishment is the best predictor of aggression showing positive relation with aggression. After symbolic punishment, object reward is another good predictor negatively related to aggression. Other significant predictors are rejection, protection and loving in order of their increasing significance. Remaining subscales did not contributed significantly in the prediction of aggression.

Best predictor in father-child relationship

To predict adolescent aggression from ten subscale variables for father only, again multiple regression coefficients were calculated.

Table 3
Standardized regression coefficients across ten subscales of father-child relationship on aggression

Variables	Beta	t-value	p-value
Protection	-.109	-2.019	.044
Symbolic punishment	.161	3.073	.002
Rejection	.110	-1.778	.076
Object punishment	.050	.962	.337
Demanding	.065	-1.216	.224
Indifferent	.049	1.050	.294
Symbolic reward	-.006	.096	.923
Loving	-.079	1.189	.235
Object reward	-.188	-3.335	.001
Neglecting	.096	-1.745	.082

Table 3 shows that with reference to the relationship of father with their adolescent children, object reward negatively predicts aggression best in adolescents. Symbolic punishment is the second best positive predictor. Protection also significantly predicts aggression. Rejection and neglecting are significant only at a 0.1 level of significance.

DISCUSSION

The present research focused mainly on investigating the role of perceived parent-child relationship quality in determining aggression in adolescents. Best predictor of aggression among different indicators of parent-child relationship has also been studied. The findings of the present study indicate that perceived quality of parent-child relationship is significantly related to aggression in adolescents. Inferring from these findings it can be concluded that adolescents perceiving good relationship with parents show less aggression and those having poor relations show high aggression. These findings are in agreement with a wide body of studies conducted in this field (e.g. Harrist & Ainslie, 1998). Punishment as negative dimension of parent-child relationship quality is reported to be a strong predictor of aggression by Romano, Tremblay,

Boulerice and Swisher (2005);and Sim and Ong (2005). Kaplan, Labruna, Pelcovitz, Salzinger, Mandel, and Weiner, (1999) also found more externalizing behavior problems on Child Behavior Checklist in abused children as compared to non abused children. Harsh parental discipline was reported as well to be a determinant of aggression by Weiss, Dodge, Bates, and Pettit (1992). These results are also in accordance with Erikson's theory of identity development, which states the "normative identity crisis" of adolescents in the process of searching for identity models. According to this view older people does not provide effective models to the younger generation. Adolescents become aggressive by identifying with older identity models in their immediate home environment. Bandura's social learning theory also supports the present finding that adolescents get training of aggression from their parents by observing it in their home. The findings can also be explained by frustration-aggression model. Adolescents having poor quality relations in the form of rejection, neglect and punishment get frustrated which stimulates aggression. On the other hand an opposite explanation can also justify this association. Adolescents who are more aggressive are more likely to have negative interactions with parents because parents get frustrated with their undesirable behavior and use punishment to inhibit these behaviors.

The quality of parent's interaction is found to be related with adolescent's healthy development. The present study was carried out to extend the understanding of this association by determination of aggression from different dimensions of relationship quality. Multiple regression analysis found that symbolic punishment is at the top of the list among subscales of parent-child relationship in order of ranking in predicting aggression. One explanation can be that teen-agers are more sensitive having high level of self esteem and do not bear criticism, sarcasm and degradation in front of others. They are most sensitive to anything threatening to their self esteem. Therefore adolescents react aggressively to these types of events. Symbolic punishment being the best predictor is also supported by general system theory formulated by Straus in 1973. According to this theory aggression may result from the way the system is setup. If the system setup in negative way, family members use unconstructive criticism and negative feedback to solve the problems, resulting in aggression and violence.

Another important finding is the difference of best predictor between mother-child interaction and father-child interaction. Aggression is best determined from symbolic punishment in case of mother-child interaction and

from object reward in case of father-child interaction. The reason can be that adolescents spend much time with mothers than fathers with greater possibility for negative interaction with mothers in the process of conflict between adolescent autonomy and parental monitoring. In the process of monitoring, mothers use symbolic punishment e.g. ignorance, expressing negative gestures etc. in order to control their undesirable behavior which threatens adolescents self esteem leading towards aggressive reactions. On the other hand in the culture like Pakistan, father spends much of the time out of house. Coming home after long hours, he ignores child's misbehaviors and brings different things loved by the child as well as provides other recreational activities, which objectively rewards the child leading towards inhibition of aggressive behaviors.

Limitations and Implications

Firstly, since the study is cross-sectional in nature, the findings cannot be regarded as providing a cause-effect relationship. Secondly, the students were selected from public schools where most students come from low socioeconomic status, while adolescents belonging to high status prefer private schools that were not included in the sample. Future research should include adolescents from private schools as well.

In spite of the limitations the study has a great significance in that it has used multiple indicators instead of a single behavior as indicator of parent-child interaction. Above all it is the first and most important finding in understanding of behavior problems of adolescence stage in the initial stage of research in Pakistan. To conclude it is essential to improve the relationship of parents with their adolescent children, to control aggressive behavior. This is a serious issue which is ignored by common man as well as by policy makers. Aggression prevention planners should try to increase understanding of role of parent-child relationship and strive to include parents as well in intervention programs.

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MENOPAUSE AND RELATED ISSUES

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ABSTRACT

Recently menopause has become the focus of researchers. The initial emphasis of the research in this area mostly conducted by medical practitioners has been on its symptomatology and prevalence. The area of assessment of menopausal symptoms has generally been overlooked. The diversity in the experience of menopause must be represented in the assessment and understanding of menopausal symptoms across cultures. It is advisable for general health practitioners to inculcate bio-psychosocial approach in the treatment of menopausal women. At present, there is insufficient organized research material regarding measurement issues related to menopause. Tools developed for measurement of menopausal symptoms and related problems are scarce and scanty. There is a dire need to focus on the development of standardized measures for menopausal symptoms, menopausal stress, and perception and attitude towards menopause and aging. The present paper attempts to address wide range of issues related to measurement and management of menopause.

INTRODUCTION

Women health has become an important area of research during the past two decades. So behavioral sciences have recognized its importance and one can find valuable research work on this issue in recent years. Studies have shown that women report more chronic diseases and disability despite the fact that they have longer life expectancy and low mortality rates than men at all ages (Khoury & Weisman, 2002).

A very important issue related to women's health is menopause. As a woman gets transition from the reproductive years through menopause and

beyond, she experiences many physical as well as psychological changes. Interestingly each woman experiences menopause in a unique way; for some women menopause is a passage way to a new part of life which contains confidence and empowerment than younger years while for some other women menopause is a reminder that they are aging which may cause distress. Menopause is a natural biological event that ends the menstrual period. For majority of women there is no need of medical treatment. Sometimes a slight change in life style, eating habits and general health practices can improve quality of life of menopausal women.

As different terminologies are used to explain the phases and types of menopause, some of the common terminologies according to Menopause Guidebook (The North American Menopause Society, 2003) are described below:

a. Natural Menopause:

Natural menopause is a spontaneous, permanent ending of menstruation that is not caused by any medical intervention. Most women experience natural menopause between the ages of 40 and 48.

b. Perimenopause:

Physical signs of menopause begin many years before the final menstrual period. This menopause transition phase is called perimenopause (literally meaning around menopause). It can last six years or more and ends the first year after menopause. Perimenopausal changes are brought on by changes in ovarian hormone levels and hormones that regulate them. The different signs of perimenopause include physical signs such as irregular periods (changes in frequency, duration, skipped periods, etc.), infertility, hot flashes and night sweats, vaginal dryness, bladder control problems, insomnia, palpitations, weight gain (especially around waist and abdomen), skin changes (dryness, thinning look), headaches, breast tenderness, gastrointestinal distress and nausea, tingling or itchy skin, "buzzing" in head, electric shock sensation, bloating, dizziness/lightheadedness, sore joints/muscles, hair loss or thinning, increase in facial hair, changes in body odor, dry mouth and other oral symptoms. Similarly, some emotional signs also accompany the abovementioned physical signs such as irritability, mood swings, anxiety, "brain fog" – difficulty concentrating,

confusion, memory lapses, extreme fatigue/low energy levels, confusion/lack of concentration, feeling emotionally detached.

c. Induced menopause:

Induced menopause, which can occur at any age after menarche, is the stopping of menstrual periods resulting from a medical intervention includes surgical removal of both ovaries and cancer chemotherapy and pelvic radiation therapy that causes serious ovarian damage. Fertility and menstrual periods may end immediately or after several months.

d. Premature Menopause:

Menopause, whether natural or induced, is called premature, when it is reached before age 40. Premature menopause can be the result of genetics, autoimmune, or medical intervention. Women who experience premature menopause spend more years without the protection effects of estrogen and are at greater risk for health problems later in life, such as osteoporosis, and possibly heart disease.

e. Temporary Menopause:

Normal ovarian function can be interrupted, causing a temporary cessation of menstrual periods. Although called "temporary menopause", this condition is not menopause. Women may experience temporary menopause after chemotherapy, pelvic radiation, and drug therapies. After therapy is discontinued, the ovaries usually resume normal production of estrogen and other hormones.

f. Post Menopause:

Post menopause refers to all the years beyond menopause — whether induced or natural.

Recent work documented an early, middle, and late stage of the menopausal transition marked by changes in menstrual flow and patterns of menstrual bleeding. The early stage is marked by flow changes in amount or a cycle length change in the presence of continuing cycle regularity. The middle stage is marked by increasing and persistent cycle length irregularity with at least one occurrence of over six days difference between consecutive cycle lengths. In

contrast, the late stage is marked by the skipping of periods with intervals of least double that of the modal cycle length of the past year (Mitchell, Woods, & Mariella, 2000).

Challenges of Mid Life

The midlife years of a woman are challenging because she has to make adjustments to a changing scenario as following:

- Own health problems often accompanied by menopausal complaints.
- Health of elderly parents
- Loss of significant others
- Changing relationships with children i.e. teenage children/married children leaving home.
- Marriage issues of children; especially in Pakistani culture finding suitable match for daughters & consequently the management of finances to arrange the marriage appropriately.
- Changing relationships with husband as there is an added stressor of sexual dissatisfaction, so the situation becomes worse if there is poor adjustment between the partners in the previous years.
- Own/husband's retirement.
- Changing relationships with in-laws as in Pakistani society a woman becomes more empowered and independent as the children grow older so she has to reconsider her strategies to deal with them.
- Adjustments to workplace i.e. if a woman is going through menopausal transition she may feel uncomfortable at the workplace due to menopausal complaints, for example heavy bleeding, mood swings, hot flashes, backache etc.

While looking at the above mentioned challenges, the importance of socio-cultural factors can not be ignored. Each socio-cultural setup exerts its pressures in a unique way with reference to the above mentioned challenges. So there is need to incorporate a bio-psycho-socio-cultural perspective to deal effectively with the menopausal symptoms. The quality of life of menopausal women can largely be improved by following such a holistic approach.

Menopause: Psychosocial Issues

The influence of psychological factors, lifestyle, interpersonal relationships and socio-cultural factors in predicting levels of depression and

anxiety in the menopausal patients cannot be ignored. Psychosocial factors may also be important in the symptomatology of perimenopausal, post-menopausal and prematurely menopausal women (Deeks, 2003).

The research work done so far on menopause in western societies needs to pay more attention to many other areas i.e. menopausal anxiety, attitude towards menopause and aging, menopausal stress and role of social support in manifestation of menopausal symptoms. The available research work focuses on menopausal depression, role of socio demographic factors in menopause, lifestyle and menopause management (Hunter, 1993; Avis, Assmann, Kravitz, Ganz, & Ory, 2004; Handy & Kuh, 2005). Moreover, menopausal depression is especially addressed and explored in recent decades (Avis, 2003; OConnell, 2004).

Findings suggest that hot flashes in peri and post menopausal women are associated with anxious and depressive symptoms (Puh, Jsung, Lee, Lu, & Wang, 2005). Anxiety can be a vicious cycle and increasing other menopausal symptoms such as hot flashes and the inability to solve them immediately creates more anxiety.

Moreover, studies have shown that psychosocial stressors were more likely to predict depression. Such stressors may include existent health problems, responsibility for the care of relatives, negative attitudes towards aging, and history of previous depression (Woods & Mitchell, 1996).

It is evident from studies that menopausal symptoms are some what reduced by helping behaviors and through social connectedness through contacts with friends and family members (Moore & Gaffney, 1989; Hartweg, 1993). Therefore role of social support in manifestation and management of menopausal symptoms should be emphasized in the contemporary research.

Unfortunately there is dearth of research on this issue in Pakistan. However, a few researchers have touched this area but they have medical background. So, their findings are limited to physical symptomatology, age at onset of menopause and prevalence of these symptoms. Still their work is quite valuable as it provides baseline for a new researcher in Pakistan who intends to work on menopause. An important study was conducted by Wasti, Robenson, Akhter et al. (1993), to investigate the characteristics of menopause in three socioeconomic urban groups in Karachi, Pakistan. The results showed that mean

age at menopause was 47 years whereas 6 % of the lower class, 26% of the middle class and 38% of upper class sought for the treatment of menopausal symptoms.

Yahya and Rehan (2002) conducted a research on commonly reported symptoms of menopause in Pakistani women. Their findings suggest that commonly reported symptoms of menopause in Pakistani women in order of frequency were lethargy (65.4%), forgetfulness (57.7%), urinary symptoms (56.2%), agitation (50.8%), depression (38.5%), insomnia (38.5%) hot flushes (36.2%), dyspareunea (16.9%). Majority of the women (66.2%) reported an increased libido after menopause. Only 5.4% reported a decreased libido while 22.3% did not notice any change. Moreover, the average age of Pakistani woman for menopause is 50 years.

Qazi (2006) studied menopausal symptoms, age, pattern, and associated problems among urban population of Hyderabad, Pakistan. The major findings of the study showed following menopausal symptoms i.e. low backache (75%), headache (70.25%), tiredness (67.75%), limb pain (59.25%), sleep disturbance (53.75%), lack of concentration (49.5%), hot flashes (55.5%) and night sweats (45%). Moreover, mean age at menopause of subjects was 47.16 years, whereas, duration of menopausal symptoms ranged from 2 to 36 months.

Baig and Karim (2006) conducted a study to identify the average age at menopause and to assess knowledge of and attitude to the menopause among Pakistani women in different social strata. Their findings are consistent with the previous studies. In addition they explored that in majority of the cases, source of information about menopause were relatives.

Menopause across Cultures

An important issue related to cultural diversity in manifestation of menopausal symptoms is that only about 25% of Japanese women report having hot flashes whereas 80 % of the menopausal women in North America and Northern Europe notice hot flashes during menopausal transition. Moreover in Mexico, Mayan women from *Yucatan Peninsula* do not report having hot flashes, menstrual irregularity is the only peri menopausal symptom they report (Kagan, Kessel, &Bensam, 2004), while 55% of the Pakistani women report hot flashes as a menopausal symptom (Qazi, 2006). Such cultural discrepancies must be looked

into and need to be studied. Following is a table that describes cultural diversity in experience of menopausal symptoms:

Table 1

Prevalence of menopausal symptoms across cultures

Country/ State	Sample Age Range	Menopausal Symptoms: Hot Flashes	Night Sweats	Sleep Problems	Tiredness/Fatigue	Sexual Problems	Depressive Mood	Pains	Source
Australia	45-50	44%	-	51%	-	-	28%	56%	Mishra et al. (2002)
California	50-89	74%	35%	28%	33%	50%	20%	-	Van Muffen et al. (1999)
China	45-65	34%	27%	34.5%	66%	53.3%	40%	68%	Liu & Eden (2007)
Ecuador	40-53	85.5%	-	45.6%	-	69.6%	74.6%	-	Chedraui et al. (2007)
India	40-49	42%	-	34%	-	-	28%	32%	Aaron et al. (2002)
Pakistan	45-59	55%	45%	53.7%	67%	20%	38%	55%	Qazi (2006)

Menopause: Measurement Issues

It is also very interesting simultaneously that despite of too much focus on menopausal symptoms, there is not a single standardized questionnaire that

might assess menopausal symptoms universally. The available instruments for measurement of menopausal symptoms are Greene Climacteric Scale, Women's Health Questionnaire, Qualifemme, Menopause Specific QOL Questionnaire, Menopausal Symptoms List, Menopause Rating Scale, Menopause Quality of Life Scale and Utian Quality of Life Scale. All of these scales are reasonably structured but each of them has its own advantages and limitations (Zollner, Acquadro, & Schaefer, 2005).

There is lack of adequate research work on the area of attitude towards menopause and aging. Though a few researchers have done valuable research work in this area (Khademi & Cooke, 2003; Sommer, Avis, & Meyer, et al., 1999) but reliability and validity of the scales used for attitude measurement are not reported appropriately. Another related issue is measurement of family functions and dynamics. To the best of our knowledge there is one study that focuses on role of family functions in menopausal symptoms and it was conducted by Huerta, Mena, Malacara, and DeLeon (1995). There is still need to develop indigenous measures for determining the role of family functions in symptomatology of menopause.

As menopausal women are going through midlife challenges, it is important to identify their stressors. It is advisable to study midlife stressors across cultures and develop standardized tools for them.

Menopause: Management Issues

While developing management plan for menopausal symptoms, socio-cultural context of the patient should be considered. The patients can be helped in a better way by focusing on their individual needs.

Keeping in view the above mentioned approach, there is a need to guide the gynecologists and general health practitioners about symptoms and problems related to menopause. Moreover, they can also play a very important role to develop awareness in the menopausal patients. The decision of taking HRT or other treatment measures must be left on the part of the patient. In this way she will become more aware of herself and it will lead her to better management of menopause. The patient reserves the right to be aware of the side effects of HRT and it should be continued after her consent. The role of the medical practitioner is important in this way that treating the menopausal symptoms is not making the patient a passive recipient; instead, it must be a process of sharing. It can also be

done by enabling the patient to become aware of her inner changes and attributing them to menopause in order to improve her functioning.

The importance of socio-cultural factors in health management can not be denied. For example, whether medical intervention is preferred or traditional remedies are used or cautionary health measures are to be adopted. In this connection, different cultures utilize diverse traditional remedies e.g. in North America *Black Cohosh* has been used for a long time for treatment of menopausal symptoms (Martin & Jung, 2002), whereas, in Pakistani culture a combination of different nuts is used to get relief from menopausal symptoms.

As Pakistan is a developing country and there is lack of education and public awareness related to menopause. Therefore, it will be beneficial to increase public awareness through women health projects which in turn will educate them about menopause and minimize the chances of mishandling by untrained midwives.

As more women are entering the work force, the experience of menopausal symptoms at work place adds to the stress resulting in loss of concentration. So it is more alarming to develop strategies in order to deal effectively with the menopausal symptoms at workplace.

Summing up the above discussion results in the following points:

1. A comprehensive bio-psycho-socio-cultural approach should be adopted for modern management of menopause.
2. The problems of working women going through menopause should be addressed and resolved.
3. There is need to develop standardized scales to measure menopausal symptoms, menopausal stress, attitude towards menopause and aging.
4. It will also be advantageous to develop such scales that can be used universally.
5. More organized research work is needed by focusing on the related variables in one research framework i.e. depression, anxiety, stress, social support, lifestyle, family dynamics, attitude towards menopause and aging, role of socio demographic factors and coping strategies.

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STRESSFUL LIFE EVENTS, SOCIAL SUPPORT AND COPING STRATEGIES AMONG FEMALE PATIENTS WITH ACUTE MYOCARDIAL INFARCTION AND THEIR MATCHED CONTROLS

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ABSTRACT

The present research investigated differences in stressful life events, perceived social support and coping strategies among female patients diagnosed with acute myocardial infarction (AMI) and their matched controls. It was hypothesized that there is significant difference in stressful life events, perceived social support and coping strategies among female patients with acute myocardial infarction (AMI) and their matched controls. It was further hypothesized that there is relationship between stressful life events and coping, and between social support and coping. A self constructed stressful life events questionnaire, Berlin Perceived Social Support Scale (Schwarzer & Schulz, 2000), and Proactive Coping Scale (Greenglass, 1999) were used for measuring study variables. The sample of the present research comprised of 50 females (25 diagnosed with AMI and 25 age matched controls); recruited from three major hospitals of Lahore city. Age of the study sample ranged from 45-65 years. Statistical Package for Social Sciences was used for analysis of the data. Independent sample t- test and Pearson Product Moment Correlation were used. The findings suggested that there is significant difference in stressful life events, perceived social support and coping strategies among female patients with AMI and their matched controls. A positive correlation was found between stressful life events and coping strategies, and between social support and coping strategies employed. Implications of the study along with limitations and suggestions were discussed for future researches.

INTRODUCTION

Though large decline in cardiovascular disease death rates has been observed in many western countries for the last 30 years, increase has been witnessed in developing countries. The global burden of cardiovascular diseases is at its peak in low and middle income countries like Pakistan and India. According to World Health Organization Statistics 80 % deaths occur due to cardiovascular diseases in developing countries like Pakistan. It is noted that if these current trends are allowed to carry on, than according to estimates by year 2015 cardiovascular disease will cause 20 million people to die, this not only means loss of life, but also loss of productivity and excessive disease burden on countries with already meager economies and poor health care facilities.

Many behavioral and psychosocial factors can be attributed to the increase in the rate of heart disease during the last decades. People are progressively facing more psychological stresses, due to high rate of industrialization and urbanization and major socioeconomic and life style changes. Progressive urbanization and adoption of a "western" lifestyle has resulted in contributing to the rising burden of cardiovascular disease (CVD) in the developing world (Reddy &Yusuf, 1998; WHO, 1998, 1999).

Risk of CHD has found to be different across genders (Njolstad, Arnesen, & Lund-Larsen, 1996; Rich-Edwards, Manson, Hennekens, & Buring 1995) and researches now confirm an earlier onset of CHD in males as compared to females (Heller & Jacobs, 1978; Lerner & Kannel, 1986). Unfortunately in Pakistan females already have found to suffer from, diabetes, high blood pressure, obesity, and are more likely to be inactive than males (Jafar, Qadri, & Chaturvedi, 2008), which means they will be at a greater risk than men, as all these factors are now proven to be risk factors for cardiovascular diseases. Rivin and Dimitroff (1954) point that CHD is more common in women with obesity, diabetes mellitus, hypertension, or surgical removal of the ovaries, so pointing towards a higher risk of cardiovascular disease in female population. Research conducted in Pakistan has established that women are at greater risk than men for cardiovascular diseases (Jafar, Qadri & Chaturvedi, 2008).

Cardiovascular disease is known to be a classical psychosomatic disease having a multifactorial etiology that interlinks psychological, social and behavioral risks responsible for the disease onset. So over the years a common theme in the study of cardiovascular disease, especially myocardial infarction is

the role of stress and stressful life events (Taylor, 1999). Stress has found to be linked with AMI, though the types of stressful events have found to vary across gender. In various researches it is revealed that female patients with coronary heart disease have more stressors related to their family life rather than work (Gomér & Leineweber, 2005; Rafanelli, Roncuzzi, Milaneschi, Tomba, Colistro, Pancaldi, & Pasquale, 2005). Multiple researches have now confirmed that stress is significantly associated with cardiovascular disease, and patients diagnosed with cardiovascular diseases have found to experience comparatively more stressful life events and stressors than their healthy counterparts (Bernard & Krupat, 1994; Christopher, 1999; Brunner, 1997; Bunker, Colquhoun, Esler, Hickie, Hunt, & Jelinek, 2003; Atkinson et al., 1993).

Past research has also proven a direct link between stress and social support. A satisfactory amount of perceived social support can minimize the impact of stress on health and consequently improve patients' ability to cope with stress produced by stressful life events and by their disease or health problems (Bernard & Krupat, 1994). People having strong social support face lesser stressful life events or experience less stress. Though, lack of social support has found to adversely affect health by increasing cardiovascular reactivity and can be a direct risk factor for AMI (Chen, Gilligan, Coups, & Contrada, 2005; Holahan, Moos, Holahan, & Brennan, 1996). Christopher (1999) conducted a research to investigate relationship between stressful life events, social support and coronary heart disease. The major findings revealed that both stressful life events and inadequate social support were most prominent risk factors for acute coronary heart disease. According to Knox and Uvnaes-Moberg (1998) social support helps to reduce stress-related elevation of heart rate, blood pressure and stress hormones and consequently it can hold back the development as well as progression of atherosclerosis (as cited in Sdorow& Rickabaugh, 2002).

Similarly, people with close relationships can also effectively cope with stressors and stressful events. Close relationships help the person to disclose and discuss problems and concerns. This model suggests that close relationships can contribute to psychological as well as social well being by increasing use of more effective coping strategies and decreasing negative emotion focused coping strategies (Greenglass, Schwarzer, Jakubiec, Fiksenbaum & Taubert, 1999).

A link between stress, social support and coping has been established through research on patients diagnosed with AMI, it is found that social support facilitates coping with crisis and stressful life events and also determines the

development of psychological and physical illness in case the support is perceived inadequate (Stewart, 2001; House, Landis, & Umberson, 1988).

Till date focus of most of the research on cardiovascular disease, carried out in western and European countries has been to study male population, but literature points that cardiovascular risk factors may vary with gender, age, ethnicity and other demographic variables. So there remains need to conduct research for identifying cardiovascular risk factors in indigenous population. In Pakistan research efforts in this regard have been inadequate, especially in determining psychosocial risk factors that has resulted in cardiovascular disease epidemic. Considering the present state of affairs the current study was designed to investigate differences in stressful life events, perceived social support and coping strategies among female patients with acute myocardial infarction (AMI) and their matched controls.

The research will be helpful in recognizing different types of stressful life events, and social support experienced by female patients diagnosed with AMI and their matched controls. Study will be beneficial in drawing attention of individuals, and public at large about type of coping used by female patients and their matched controls. In context to cardiovascular rehabilitation, findings of the present study can be very valuable in considering assessment of stressful life events and available social support along with type of coping employed by female patients, which can ultimately help in providing assistance in developing psycho-educational programs to help patients, their families, friends, relatives and health care experts in providing effectual social support. The study will formulate ground for designing psychological interventions to help patients effectively cope with stressful life events and with the stress of the disease itself. In the light of the above discussion following hypotheses were formulated.

- Female patients diagnosed with acute myocardial infarction (AMI) experience more stressful life events than their matched controls.
- Females patients diagnosed with acute myocardial infarction (AMI) have greater perceived social support than their matched controls.
- There is a significant difference in coping strategies employed by female patients diagnosed with AMI and their matched controls.
- There is a relationship between stressful life events and coping strategies.
- There is a relationship between perceived social support and coping strategies.

METHOD

Participants

The study sample comprised of 50 females (25 with AMI & 25 age matched controls). Sample was recruited from three major hospitals of Lahore (including Punjab Institute of Cardiology, Jinnah hospital and Sir Ganga Ram hospital, Lahore). Age of the sample ranged from 45-65 years with mean age of 55.28 years for female patients with AMI and 54.92 years for their matched controls. A non- probability purposive sampling strategy was used selected on the basis of following inclusion/exclusion criteria:

Inclusion / Exclusion criteria for Cases (AMI)

Currently hospitalized female patients diagnosed with AMI and their diagnoses confirmed by the cardiologists on the basis of clinical symptoms were included whose age ranged between 45-65 years. Only patients able to read and write indigenous language; and willing to participate with written consent were included. Patients diagnosed with any other significant chronic medical illness including: Liver failure, renal failure, Cancer or HIV (AIDS), Hyperthyroidism, Hypothyroidism; Pregnant females; and patients with prior/ current history of any psychiatric illness or currently on any psychiatric medication were not included.

Inclusion / Exclusion criteria for Controls (matched controls)

Controls were recruited with age matched to every case of AMI whose age ranged between 45-65 years or (up to 5 years older or younger), and who were the visitors or non blood relatives of the patients. Only participants with no prior diagnoses of any significant chronic medical illness including liver failure, renal failure, cancer or HIV (AIDS), hyperthyroidism, hypothyroidism etc; and no past/ current history of a psychiatric illness or currently on psychiatric medication were included in the study.

Measures

Demographic form

This form included information on age, education, marital status, religion, family structure, family history of AMI, hypertension, Menopause.

Stressful life event scale

Stressful life events were assessed by a self constructed stressful life events scale. The scale was constructed by gathering information on stressful life events from female patients diagnosed with AMI through a pilot study conducted on 15 female patients diagnosed with AMI. The subjects were administered with a list of 43 life events constructed by Holmes and Rahe (1967) and they were asked to indicate only those life events, which they had encountered during the last five years. They were also asked to mention how stressful they have found each of those events on a five point likert scale. After getting a hierarchy of life events from most stressful to the least stressful event, a scale of stressful life events was constructed based on 23 most commonly reported stressful life events by the participants during the pilot study. Every life event had two response options including (Yes and No). Alpha reliability of stressful life events scale for the research participants was found to be (α = .88).

Berlin Perceived Social Support Scale

Perceived social support was assessed by Berlin perceived social support scale (Schwarzer & Schulz, 2000). This 15 item scale assessed four types of perceived social supports including; emotional support, instrumental support, informational support and satisfaction with support. The subjects had to rate between (1) strongly disagree to (4) strongly agree. The alpha reliability of perceived social support scale (translated into Urdu) was found to be (α = .93).

Coping Scale

Coping strategies were assessed by the proactive coping scale by Greenglass (1999). Items that had high reliability were taken. Coping was assessed by 20 items, for five type of coping (1) Avoidance coping, (2) emotional support seeking, (3) religious coping, (4) reflective coping and (5) strategic planning coping. A 5-point Likert-type scale that ranged from not at all (1), to, always (5) was used to assess coping during stressful events.

Procedure

Institutional consent was taken from the concerned authorities of three major hospitals of Lahore for collecting data from patients admitted and diagnosed with AMI who fulfilled the study inclusion/ exclusion criteria. A pilot

study was conducted to formulate the stressful life event scale and check psychometric properties of the rest of the scales to be used. Matched controls were also recruited from the same hospitals; they were either non blood relatives or visitors of the patients. Participants were briefed about the purpose of the study and were assured about the confidentiality of their responses and were asked to sign a written consent form. All research participants filled in the demographic form, stressful life events, Berlin Social Support scale and Coping Scale. Results thus obtained from all study participants were analyzed by using SPSS version 15.

RESULTS

Table 1

Descriptive statistics of Demographic Variable of the Sample (N=50)

Variable	AMI (n=25)		Matched controls (n=25)	
	freq	%	*freq*	%
Participant's Age				
45-51	9	36.0	9	36.0
52-58	6	24.0	7	28.0
59-65	10	40.0	9	36.0
Mean Age in years	55.28		54.92	
Marital status				
Unmarried	1	4.0	0	0
Married	13	52.0	21	84.0
Widow	9	36.0	4	16.0
Divorced	2	8.0	0	0
Education				
Below matric	10	40.0	8	32.0
Matric	10	40.0	7	28.0
Intermediate	5	20.0	10	40
Religion				
Islam	24	96.0	24	96.0
Christianity	1	4.0	1	4.0
Family Structure				
Nuclear	11	44.0	16	64.0
Joint	14	56.0	9	36.0

CONTD..... Table 1 Variables	AMI (n=25)		Matched controls (n=25)	
	frequency	%	*frequency*	%
Hospital				
PIC	10	40.0	10	40.0
Jinnah	10	40.0	10	40.0
Sir Gangaraam	5	20.0	5	20.0
Family history of AMI				
Yes	17	68.0	10	40.0
No	8	32.0	15	60.0
Diabetes				
Yes	16	64.0	11	44.0
No	9	36.0	14	56.0
Hypertension				
Yes	23	92.0	14	56.0
No	2	8.0	11	44.0
Menopause				
Yes	21	84.0	9	36.0
No	4	16.0	16	64.0

Note. AMI= Acute Myocardial Infarction, PIC= Punjab Institute of Cardiology

Table 2
Mean Difference between patients diagnosed with AMI and their Controls on Stressful life events, Perceived Social Support, and Coping Strategies

Variables	*M*	*SD*	*t*	*df*	*SE (dx-x)*	*p*
Stressful life events						
AMI	14.68	2.37	12.25	48	.702	.000
Matched Controls	6.08	2.54				
Perceived Social Support						
AMI	35.68	6.12	8.05	48	1.72	.000
Matched Controls	49.60	6.15				
Coping Strategies						
AMI	67.84	5.15	2.06	48	1.74	.045
Matched Controls	64.24	6.97				

Table3
Mean difference between patients diagnosed with AMI and their matched controls on Type of Coping Strategies employed

Type of Coping	*M*	*SD*	*t*	*df*	*p*
Avoidance coping					
AMI	15.40	2.23	6.88	48	.000
Matched Controls	10.48	2.78			
Emotional support seeking					
AMI	15.84	2.40	4.95	48	.000
Matched Controls	12.04	2.97			
Religious coping					
AMI	16.92	2.82	1.91	48	.061
Matched Controls	15.36	2.92			
Reflective coping					
AMI	10.92	2.59	-3.31	48	.002
Matched Controls	13.72	3.33			
Strategic Planning					
AMI	8.76	1.85	-6.55	48	.000
Matched Controls	12.64	2.30			

Table 4
Relationship of Stressful life events and Perceived social support with coping strategies

Variables	r	p
Stressful Life Events	.30	.03
Perceived Social Support	.50	.001

DISCUSSION

Current research findings indicate that there is significant difference in stressful life events for patients diagnosed with AMI and their matched controls. Female patients diagnosed with AMI seem to experience more stressful life events than their matched controls. These results are consistent with previous research findings of group of researchers who found significantly more

psychological stressors and stressful life events in lives of patients diagnosed with AMI as compared to their healthy matched controls (Rafanelli et al., 2005; Singh & Koushik, 1993). Gomer and Leineweber (2005) also discovered that female patients with coronary heart disease have to face more stressors related to their family, as compared to their healthy matched controls. Varkey's (1988) findings indicate that patients diagnosed with MI significantly perceived life events as more stressful and less controllable than their matched controls (As cited by Pestonjee, 1999). Greenglass (1999) confirmed that people with lesser coping resources or social support tend to appraise the stressor as more threatening. Sarason and Sarason (1980) also confirmed the fact that in case the same number of stressful life events, are experienced by patients with AMI and their matched controls, higher levels of stress is faced by patients with AMI.

Results of the study point that female patients with AMI perceive less social support as compared to their healthy matched controls. Lack or low social support has been related to health-risk behavior, psychological distress, cardiac symptoms, and increased risk of recurrent cardiac events and mortality (Pedersen, Middel & Larsen, 2002). Poor social support produces real or perceptible hurdles to help seeking, and health related behavior, where by increasing the susceptibility and progression of disease (Kuper, Marmot & Hemingway, 2002). Lack or low social support can also lead to negative emotional states like depression, and increase stress, bringing change in health related behavior like taking unhealthy diet, use of alcohol, and sedentary lifestyle, ultimately leading towards cardiovascular disease (Rozanski, Blumenthal & Kaplan, 1999). Many other European and Western studies have also confirmed that patients diagnosed with cardiovascular diseases have experienced lack or low percieved social support during the course of their lives (Kawachi et al., 1996; Orth-Gomer & Johnson, 1987).

The results of present research indicate significant difference in coping and type of coping strategies employed by female patients diagnosed with AMI and their matched controls. Female patients with AMI seem to utilize more coping strategies as compared to their healthy matched controls. Female patient with AMI significantly seemed to utilize more avoidance focused and emotional focused strategies than their matched controls. Suls and Fletcher (1985) found that when stressors are uncontrollable and short term, individuals mostly imply avoidant strategies. Gender differences in type of coping strategies employed exists and research has confirmed this difference. McCrae and Costa (1989) noted that women use more avoidant coping strategies. Nowack (1989) revealed

that avoidance coping styles significantly predicts physical illness outcomes in the form of MI. Ogden and Mtandabari, (1997) confirmed the association between avoidant coping styles in response to stress and MI through indirect pathways. Avoidant coping is associated with decreased and unhealthy food intake. Christensen, Benotsch, Wiebe and Lawton (1995) found emotion-focused strategies associated with compliance when assessing uncontrollable illness stressors like MI. Cronkite, Moss, Twohey, Cohen, and Swindle (1998) confirmed that emotion focused and avoidance- based coping styles are associated with depression, higher levels of distress and poorer health outcomes. The study highlights that female patients diagnosed with MI used more emotional support seeking strategies, results are supported by research findings of Jerlock, Johansson, Kjellgren and Welin (2006), they indicated that female patients having intense chest pain significantly used emotive coping strategies to a greater extent. It was also found out that as patients experienced more negative life events they were more likely to use emotive coping, patients in the study sample had also experience more stressful life events and thus were utilizing more emotional support seeking coping strategies.

Patients diagnosed with AMI utilized less reflective coping and strategic planning strategies then their matched controls. According to Lazarus and Folkman (1984) when people believe that the problem is consistent, uncontrollable and they can do nothing constructive about stressful situation they tend to use strategic planning strategies rather than emotion focused coping strategies. Cronkite and Moos (1984) found that people experiencing more social support use more problem focused and active coping strategies, and less avoidant coping, likewise, in the current research female patients reported less perceived social support as compared to their age matched control, so they were utilizing more avoidant and emotion focused strategies, instead of strategic planning strategies.

The results of present research point that female patients with AMI utilized more religious coping strategies as compared to their matched controls. These results are supported by research findings of Koenig, George and Siegler (1998) who revealed that religious coping was the main coping strategy used by 45% of the patients suffering from chronic illnesses and especially by most of the older population. The mean age of patients diagnosed with AMI was found to be 55 years. Timothy, Michael and Justin (2003) also suggested that the patients diagnosed with acute myocardial infarction (AMI) who experience stress due to

recent stressful life events and have a high religious orientation and employed more religious coping strategies.

The results of the present research further show that there is significant positive relationship between stressful life events and coping strategies, with more stressful life events associated with higher level of coping strategies employed. Brannon and Feist (2000) suggest that when people continuously encounter many unusual and inevitable stressful life events including disease onset, they tend to utilize more personal strategies for coping with those events till a time comes when their coping strategies are worn out, which may put them at risk for further disease morbidity and mortality. McCrae (1984) said that people use coping strategies in harmony with the individual's perception of the situation. In threatening situations like illness they employed faith, fatalism and wishful thinking. In loss, individuals use emotional expression, faith and fatalism during challenging situations individuals mostly imply rational action.

In addition to this, present research findings indicate a strong positive correlation between perceived social support and coping strategies, with high level of perceived social support associated with higher level and effective coping strategies. Cronkite and Moos (1984) found that social support is related to use of more problem focused and active coping strategies, and lesser use of avoidant coping. Our study sample revealed presence of low perceived social support in female patients diagnosed with AMI, hence they were found to use more avoidant and emotional support seeking coping strategies. Holahan, Moos, Holahan and Brennan (1996) discussed relationship between social support, coping strategies and psychosocial adjustment to cardiac illness. The findings indicated that social support has a positive impact on the development of the effective coping strategies and not only can improve the adaptive coping reactions but also can help to prevent cardiac patients from becoming depressed.

The current research like any other research also has certain limitations. Sample size was small and the sample was taken from only three hospital of Lahore city, which may not be considered as true representative of the whole population. With all its limitations the study has implications for designing psychological assessments and interventions for female patients diagnosed with MI. The study can be considered as a forerunner for designing further studies focusing psychosocial risk factors for MI in developing countries. This study can be considered as a preliminary effort of the researchers in laying grounds for psycho-cardiology within the country.

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ASSOCIATION BETWEEN PERCIEVED SOCIAL SUPPORT AND DEPRESSION IN CANCER OUTPATIENTS

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ABSTRACT

The objective of the present study was to determine the relationship between perceived social support and depression in male and female cancer patients. 50 cancer patients (25 males & 25 females) from lower socioeconomic class who were under treatment in different hospitals and clinics of Karachi, Pakistan were tested. Subjects were requested to fill the demographic form and were briefly interviewed. The Multi dimensional Scale for Perceived Social Support (Zimet, Dahlem, Zimet,& Farley, 1988) and Siddiqui-Shah Depression Scale (Siddiqui & Shah, 1997) were administered to measure perceived social support and level of depression respectively in participants. Pearson product correlation coefficient and z-test was applied to explain the data in statistical terminology. Results shows that lower the social support, higher would be the depression (r= -.347, p< .05). No difference was found between correlation of social support and depression among male and female cancer patients.

INTRODUCTION

The incidence and prevalence of depression are elevated in individuals with long-term medical conditions (Patten, 1999; Gagnon & Patten, 2002; Katon, 2003, Patten, 2005). Large number of previous studies have shown that prevalence rate of depression ranges from 30%-60% people with heart disease (MacMahon & Lip-Gregory, 2002), 45% for asthma patients (Manouso, 2000), and 17.6% individuals with migraine (Molgat & Patten, 2005). Cancer survivors also report higher rates of debilitating psychological problems (Hewitt et al., 2003) and depressive symptoms (Brown et al., 2003; Hallttunen et al., 1992; Parker et al., 2003; Saleeba et al., 1996). Massie (2004) found depression in

highly associated with specifically oropharyngeal, pancreatic, breast, and lung cancers. Evidence suggests that there is a joint effect of depression and chronic conditions on functional ability (Schmitz et al., 2007; Spertus et al., 2000); mortality and shorter survival or increased risk of death has been associated with depression in cancer (Onitili et al., 2006; Faller et al., 1999).

Concept of incurable illness is also associated with other stressors like inadequate care and attention from care takers or others; depression becomes persistent and more intense. It is very obvious fact that support from environment plays very important role in the maintenance and exacerbation of the problem. These are the issues that have been emphasized that how support and care from outside world and environment effect the way of thinking, and the ideation cancer patients have for their life. Therefore social experiences are very essential in predicting the well-being for everyone, ranging from childhood through older adults. As few studies evidenced that social support has been shown to be a significant factor in reducing life-change stress and promoting positive health outcomes, including both physical and psychological well-being (Michael et al., 2002; Beattie, 2001; Burman & Margolin, 1992; Cohen & Wills, 1985 cited in Herbert, 2006).

The positive association between social relationships and health has been well-recognized. According to Salovey, Detweiler, Steward, and Rothman, (2000) strong social support is essential to help succeed in achieving overall physical well-being and has also been found to assist coping and to exert beneficial effects on various health outcomes for patients (Schwarzer & Leppin,1989, 1991). With the presence of a supportive environment patient compliance with treatment may also be better (Hays et al., 1992). In 1995 Evans and Connis conducted a study in which stage II cancer patients undergoing radiation, were given group therapy for an hour a week and then administered a depression questionnaire. Results showed that depressed persons with cancer who received brief group therapy interventions exhibited greater reduction in emotional distress than members of a comparison group who did not participate in any group intervention.

A patient with cancer when comes to know about his condition and illness that his life is coming to an end and survival is now only a destiny and blessing; hopelessness and helplessness are very common response. These feelings and thoughts leads toward many psychological issues, dealing to which a victim may call for more support from one's environment. In our culture where less attention is given to the psychological and emotional problems, there is a

need to address the impact of social support on cancer patient's psychological well-being that to what extent the role of social support helps in protecting and overcoming psychological consequences. After an extensive review of literature we may conclude that cancer patients with greater social support are less likely to suffer from depressive disorders, as social support has been shown to be a significant factor in reducing life-change stress and promoting positive health outcomes, including both physical and psychological well-being (Andrew et al., 1978; Argyle, 1992; Dean & Ensel, 1982).

Depression is believed to affect men and women with cancer equally, and gender-related differences in prevalence and severity still have not been adequately evaluated (Miaskowski, 2004). Most prior studies examining sex difference in the relationship between social support and psychopathology in adolescents and adults showed the association to be stronger in females than in males (Bildt & Michelsen, 2002; Elliott, 2001; Schmedley et al., 1999; & Stansfeld et al., 1998). Schmedley et al. (1999) also found that compared to males, females reported significantly higher levels of social support, higher levels of depression, and significantly stronger relationships between social support and depression. Ihsan and Sadeq (1994) found that depression is higher in females than in males, but showing non-significant relationship with social support.

Research on the association between social support and depression in males and females has provided controversial findings, with some studies reporting that social support is equally important in males and females as a correlate of depression, and others showing that the association between two is more strengthened among females. In present study we addressed the same question with cancer patients of lower socio-economic status in Pakistan.

METHOD

Participants

Present study was conducted on under treatment cancer patients (regardless the type of cancer) in different hospital settings of Karachi Pakistan. The sample consisted of 50 cancer patients (25 males & 25 females) between age range of 20 years to 50 years with mean age of 39 years. The entire sample belonged to lower socio economic class. Participation in the study was voluntary.

Measures

Siddiqui Shah Depression Scale

Siddiqui Shah Depression scale (Siddiqui, 1992) is an indigenous measure of depression in Urdu language. It consists of 36 items and classifies depression in three levels i.e., mild, moderate and severe. It is a 4-point rating (Never to All the time) self-report measure. The alpha coefficients for the clinical and non clinical samples were r = .90 and .89, respectively. The SSDS correlated significantly with Zung's depression scale ($r = .55$, $p < .001$) and psychiatrists rating for depression ($r = .40$, $p < .05$). The SSDS has also shown significant correlation with subjective mood ratings for the Clinical group ($r = .64$, $p < .001$).

Multidimensional Scale for Perceived Social Support (MSPSS)

The Multidimensional Scale for Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) was developed as a concise self-report measure which subjectively assesses ones perceived adequacy of social support from the following three sources: family, friends and significant other. This scale consists of 12-items and its ratings were made on a 7-point Likert-type scale ranging from very strongly disagree to very strongly agree. In the current study the translated version of The Multidimensional Scale for Perceived Social Support (Khan, 1998) was used.

Procedure

After getting formal permission from authorities of hospitals, the participants were approached through their consultant doctors /nursing staff at out patients' clinics. Confidentiality regarding information and results was assured. First the demographic data sheet was filled in. It consisted of items focusing on and individual's demographic information e.g. age, sex, date of birth, family structure, monthly income of family, etc. All the participants were briefly interviewed about their illness, kind and duration of illness and treatment. Then Multidimensional scale for Perceived Social Support (Zimet, Dahlem, Zimet, Farley 1988) and Siddiqui Shah Depression scale (Siddiqui, 1992) were administered on the participants to assess perceived social support and level of depression. All the scales were administered individually.

Statistical Analysis

Pearson product correlation coefficient was used in order to explore the relationship of social support and depression. z-test was applied to find the difference between correlation of social support and depression of male and female cancer patients.

RESULTS

Table 1
Correlation between variables of Social Support and Depression in Cancer Patients

Variables	Mean	Std. Dev	r	Sig
Social Support	31.04	18.25		
			- .347	.014
Depression	59.92	17.92		

Results indicate that correlation between social support and depression is highly significant (-0.347, p< 0.01)

Table 2
Difference in correlation between Social support and Depression of male and female cancer patients

Groups	*Variables*	*Mean*	*Std. Dev*	*r*	*z*	Sig
	Depression	27.00	17.74			
Males	**Social Support**	64.20	19.89	-.234		
	Depression	35.08	18.19		0.68	.49
Females	**Social Support**	55.64	14.89	-.416		

Results indicate that the correlation between social support and depression of male and female cancer patients is r = - .234 and r = - .416 respectively. There is no significant difference between the correlation of social support and depression of male and female cancer patients (z = 0.68, p > .05)

DISCUSSION

Result of the present study indicates a significant negative correlation between social support and depression (r = - .347, p < .01) in cancer patients.

The current finding confirms the role of social support that has been consistently associated with better physical health and psychological well-being (Salovey, Detweiler, Steward, & Rothman, 2000; Beattie, 2001; Burman & Margolin, 1992; Cohen & Wills, 1985 cited in Herbert, 2006) and social network is associated with better physical quality of life (Michael et al., 2002) in cancer survivors.

Corey (2005) found that the absence of social support shows negative impacts on individuals. In most cases, it can predict the deterioration of physical and mental health among the victims. The initial social support given is also a determining factor in successfully overcoming life stress. The presence of social support significantly predicts the individual's ability to cope with stress. Knowing that 'others value them' is an important psychological factor in helping them to forget the negative aspects of their lives, and thinking more positively about their environment. As Thoits (1982) defined social support as the degree to which a person's basic social needs, which include affection, esteem or approval, belonging, identity and security, are gratified through interactions with others. Social support not only helps improve a person's well-being, it affects the immune system as well. Thus, it is also a major factor in preventing negative symptoms such as depression and anxiety and keeps an individual protected, as research that has examined environmental influences on depression (Bell, LeRoy & Stephenson, 1982., Cohen et al., 1984) has revealed that social support is an environmental resource that mitigates depression. The present study shows that lower the social support, higher would be the depression.

The correlation between social support and depression of male and female cancer patients is $r = -.234$ and $r = -.416$ respectively, whereas $z = 0.68$, $p > .05$ indicates that there is no significant difference between the correlation of social support and depression of male and female cancer patients. Numbers of prior studies examining sex differences in the association between social support and psychopathology reported mixed results. Most (Bildt & Michelsen, 2002; Elliott, 2001; Schmidley et al., 1999; Olstad, et al., 2001; Keel & Mitchell, 1997) but not all (*e.g.* Stansfeld et al., 1998) indicated that women are more sensitive than men to the pathogenic effects of low levels of social support.

Although poor social support is related to onset and relapse of depression either through a direct effect unrelated to levels of concurrent adversities or through a buffering action, which adds to the effect of adversities (Brugha, 1990). However, levels of social support do not seem to contribute to sex differences in

depression. Reevy and Maslach (2001) reported that gender, but not sex, was associated with differences in social support behavior. Few studies also reported that femininity (in both sexes) better prepare individuals for receiving and giving social support (Reevy & Maslach, 2001). We may need to assess gender rather than sex differences in association between social support and depression in cancer patients and general population as well.

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DEPRESSION AS A FUNCTION OF SOCIAL SUPPORT IN HIV PATIENTS

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ABSTRACT

The aim of the present study was to determine whether lack of social support leads to depression in HIV patients or not. It was hypothesized that: (1) there would be low level of social support and high level of depressive symptoms in HIV patients, and (2) there would be strong negative relationship between the overall depression scores of the patients and their scores on the esteem subscale of the social support scale. The sample comprised of 50 HIV patients aged between 20 to 25 years, with at least secondary school education. Sample was selected from different organizations of Karachi. Siddiqui Shah Depression Scale (1997) and Social Support Scale (2005) were administered on the patients. Pearson Product correlation and descriptive statistic including frequency and percentages, was applied for the statistical analysis of the data using statistical package for social sciences (SPSS 12 version). Results reflect that a number of patients score in high range on measure of depression (96%), while 66 % of them perceive the social support, and 70% of them perceive the esteem support they receive as low. The results indicated strong negative correlation between levels of depression and social support in HIV patients ($r = -.672$, $p< .05$). Moreover, analysis of the results also showed that HIV patients with low esteem score on social support scale showed high depressive scores($r = -.627$, $p< .05$).

INTRODUCTION

Social support plays a vital role in individual's health and well being. A general theory that has been drawn from various researches over the past few

decades postulates that social support essentially predicts the outcome of physical and mental health for individuals at every stage of life i.e. from childhood to old age (Cutrona & Russell, 1990, Acitelli & Antonucci, 1994, Cutrona & Suhr, 1994).

Social support networks include all those people who know us and care for us like parents, siblings, spouses, close and other friends, workmates, acquaintances and neighbors. There are six criteria of social support that researchers have used to measure the level of overall social support available for the specific person or situation. First, they would look at the amount of attachment provided from a lover or spouse. Second, measuring the level of social integration that the individuals are involved with, it usually comes from a group of people or friends. Third, is the assurance of worth from other, such as positive reinforcement, that could inspire and boost the self-esteem. The fourth criterion is the reliable alliance support that is provided from others, which means that the individual knows that he/she can depend on receiving support from family members whenever it was needed. Fifth criterion is the guidance/support given to the individual from an authority figure/person, such as a teacher or parents. The last criterion is the opportunity for nurturance. It means the person would get some social enhancement by having children of his or her own and providing a nurturing experience (Cobb, 1979; Kahn, 1979; Schaefer, Coyne & Lazarus, 1981; Weiss, 1974).

Social support is one of the foremost contributions of the life quality along with satisfactory treatment course and it plays an important role in terminal illness (Carey, 1974). Social support has been claimed to have positive effects on a variety of outcomes, including physical health, mental well being and social functioning; while external locus of control, low social support, emotional stress, and poor coping mechanisms were associated with psychological symptoms and maladjustment to cancer (Klemm, 1994; Krishnasamy, 1996). Similar idea was suggested in a research conducted by Naheed (2000) which clearly indicates that family support plays a crucial role in the improvement of stroke patients. Likewise the findings of one more study suggest that social support and health are positively related. Thus in the light of the literature mentioned it can be summarized that social support plays a crucial role in physical and psychological well being of an individual.

Keeping in view the role played by social support in maintaining physical and psychological health of the individual an attempt was made in the present study to explore whether lack of social support results in development of depression among HIV patients. As despite of all the preventive measures taken the number of HIV patients all over the world is at rise. At the end of 1993 the World Health Organization (WHO) estimated that worldwide about 10 million people were infected with Human Immunodeficiency Virus (HIV).

HIV is a ribonucleic acid (RNA) containing retrovirus that was isolated and identified in 1983. HIV infects cells of the immune system and the nervous system. Infection of T4 (helper) lymphocytes eventually result in impaired cell mediated immunity, dramatically limiting the ability of the body to protect itself from other infectious agents and to prevent the development of specific neoplastic disorders. Infection of cell within the central nervous system result directly in the development of neuropsychiatric syndromes which are commonly further complicated in patients with AIDS by neuropsychiatric effects of opportunistic CNS infections, antiviral treatment related adverse effects, independent psychiatric syndromes and last but the most important myriad psychosocial stressors related to having an HIV related disorders (Kaplan, Sadock & Grebb, 1994).

Furthermore, major psychodynamic themes for HIV infected patients involve self blame, self esteem, and issues regarding death. The trained mental heath practitioners may help patient deal with feeling of guilt regarding behaviors that contributed to the development of HIV (Hirsch & D' Aquila 1993). It has been observed that HIV often can be accompanied with low self-esteem and depression which is described as having the blues, feeling sad, guilty, hopeless, helpless and melancholy and as reacting to the grief of losing some loved objects. The most prevalent definition is that of a dysphoric (chronic) feeling of illness and discontented mood and/or a pervasive loss of interest that is characterized by certain symptoms (Spitzer, Sheeehy, & Endicott, 1977). Thus, it is worth mentioning here that HIV patients may benefit from psychological assistance in the form of psychological assessment and counseling as this will help HIV patients deal with the depression and other social, interpersonal aspect of the disease.

Despite this fact that on one hand several NGOs and other government agencies are making a lot of efforts in educating people to prevent HIV in Pakistan. However, on the other hand it is particularly unfortunate that there is

increase in number of HIV positive cases reported in Pakistan in the last couple of years. Intravenous (IV) substance abusers are considered to be the most important source through which this virus is spreading to women, children and heterosexual men (Bokhari et al., 2007). A range of 4 to 40 % of HIV infected patients have been reported to meet the diagnostic criteria for depressive disorders (Mapou et al., 1993). It has been observed that HIV patients often feel guilt, shame and anger because the patients feel that they are being punished for a deviant lifestyle including unsafe sex, substance abuse or risky health care decisions. It's a well known fact that by the time adequate knowledge regarding the transmission of HIV epidemic was not available; people were scared of this modern plague.

Esteem Support

Esteem support is the expression of regards of one's skills, value and abilities of a person. It furthers the reassurance of a person's competency which boost up his/her self esteem. According to Bandura (1977), reassuring a person in his/her competence may foster self-efficacy, and that is associated with greater persistence and less discouragement in goal-directed behavior. Reassuring may lessen the intensity of negative emotions enlarged by stressful events especially those involving failure or blame. HIV patients lack esteem support due to the stigma attached to it and they became depressed but in fact, due to the people expressions many depressed people do not feel helpless but instead tend to blame themselves too much and usually feel that they should have been able to do something to prevent bad events or out come. That is, they seem to assume an unreasonable amount of responsibility for various things, even those over which they actually had no control (Buchwald et al., 1978; Raps et al., 1882; Ridley, 1978). Thus, it appears that the most depressives are excessively self-blaming rather than helpless peers. As a general practice HIV/AIDS patient were socially isolated for two reasons, one for acquiring this disease by indulging into immoral sexual practices, outside marriage sexual practice and secondly fear of being infected by the disease as a result of all forms of routine interactions. Fortunately the public health officials have been successful in advocating people regarding the modes of transmission of this disease through media and other means of communication and the scenario is different presently. However, there is still a strong stigma attached with this disease which is further complicated by the societal values and norms surrounding sexual acts and substance abuse. This fact cannot be denied that once the individual is diagnosed to be HIV positive the attitude of family members, friends, employers and other significant others

changes toward the person. In addition to this the stigma attached to this disease adversely effect the self esteem of the patients and coerce the individual to not only tolerate the biased attitude of the people around but also become socially withdrawn and refrain from expression of his/her feelings (McKegny & O' Dowd, 1992).

It has also been reported that patient's family, lover, and close friends are often important allies in treatment as they help them cope with the illness and support them in the difficult time. The ideas presented in the aforementioned points clearly imply that social support plays an important role in psychological well being of the HIV infected patients. Considering this fact it was assumed in the present study that there would be low level of social support and high level of depressive symptoms in HIV patients and there would be strong negative relationship between the overall depression scores of the patients and their scores on the esteem subscale of the social support scale.

METHOD

Participants

The sample comprised of 50 HIV patients (already diagnosed cases) aged between 20 to 25 years, with at least secondary school education. Sample was selected from different organizations of Karachi including Alleviate Addiction Suffering, Marie Adelaide House of Hope, New light People living with HIV Care and Support Welfare house, Sindh AIDS Control Program, Ahujat Welfare Society and Marie Adelaide Leprosy Center Rehabilitation Program. Purposive and snowball sampling methods were used for data collection.

Measures

The data was collected with the help of two instruments:

Siddiqui Shah Depression Scale (SSDS; Siddiqui & Shah, 1977)

Siddiqui Shah Depression Scale have test re test reliability of .85, (Siddiqui & Shah, 1977). This 36 items scale, provides measures of depression. It is a 4 point scale, where "0" denoted no sadness, "1" normal sadness, "2" mild depression, and "3" severe depression. Taking a score of 26 as the lower and a score of 36 as the upper limit indicative of "mild depression", scores ranging

from 37-49, interpretable as "moderate depression", whereas a score of 50 and above denoted the presence of "severe depression.

Social Support Scale (SSS; Malik & Ismail, 2005)

Social Support Scale with split half reliability of r = 0.79 (Malik & Ismail, 2005). A 52 items scale which provides measures of social support in five different areas i.e., informational support (item no. 5, 10, 16, 28, 36, 44,), tangible aid (items no. 4, 9, 31, 40, 49), emotional support (item no. 2, 7, 12, 15, 17, 20, 23, 26, 29, 35, 38, 41, 43, 46, 48, 51), esteem support (items no. 3, 8, 13, 19, 22, 25, 32, 34, 37, 42, 45), and social network support (items no. 1, 6, 11, 14, 8, 21, 24, 27, 30, 33, 39, 47, 50).

Quartile 1 (Q1) and Quartile 3 (Q3) had been calculated on the total scores of the remaining 51 items, (social support scale) and its five sub-scales in order to find out the classificatory indices of social support scale (i.e. high, moderate, low level of social support scale). Q1 for social support scale is 84, Q2 is 99 and Q3 is 114. High score would reflect high level of social support and low score would reflect low level of social support.

Procedure

After taking informed consent from the participants, demographic information was obtained through a form which entailed information about the participant's age, gender, qualification, marital status, occupation and socioeconomic status. Siddiqui Shah Depression Scale with test re test reliability of .85 and Social Support Scale with split half reliability of r = .79, were administered on the patients.

Operational definitions

Social support

Social support is characterized by physical and psychological comfort provided by other people by one's friends and family members (Amber & Ismail 2005) including the following major categories:

a. Informational Support: It means that one's get advices, suggestions, supervision and feed back on his/her actions.
b. Tangible Support: It means that to provide needed materials and different services.

c. Emotional Support: This type of support includes caring, empathetic and sympathetic behavior a person shows to others.
d. Social Network Support: It refers to a sense of belongingness to a group of shared interests and concerns.
e. Esteem Support: It refers to the expression of positive regards for one's abilities, skills and the encouragement of his/her goal directed behavior. (Bandura, 1977).

Depression

A mood state characterized by a sense of inadequacy, a feeling of despondency, a decrease in activity or reactivity, pessimism, sadness and related symptoms

HIV Positive

Human Immune deficiency virus, individuals infected with human immune deficiency virus that leads to deficiency of the immune system.

RESULTS

Table 1
Percentage of depression and social support in HIV patients

Variables		N	%
Depression	low	01	02
	moderate	01	02
	high	48	96
Social support	low	33	66
	moderate	14	28
	high	03	06
Esteem support	low	35	70
	moderate	12	24
	high	03	06

Table 2
Correlation of depression with social and esteem support in HIV patients

Variables	*R*	Significance	*N*
Depression/Social Support	-.672	P< .05	50
Depression/Esteem Support	-.627	P< .05	50

DISCUSSION

Analyses of the results reveal that social support plays a significant role as a predictor of depression in HIV patients. The results are consistent with the hypotheses formulated and previous studies.

Table No. 1 shows the percentages for depression, social support and esteem support. In present study 96% HIV patients had high level of depression whereas 2% had low and moderate levels of depression. There were 66% HIV patients who received low level of social support, 28% moderate level of social support where as 6% of HIV patients received high level of social support. Furthermore, 70% HIV patients had low esteem support, 24% had moderate level and 6% had high level of esteem support.

The correlation coefficients were computed in Table No. 2 to examine the relationship of depression and social support as well as depression and esteem support. The results indicated strong negative correlation between levels of depression and social support in HIV patients (r = - .672, p< .05). Moreover, analysis of the results also showed that HIV patients with low esteem score on social support scale showed high depressive scores(r = - .627, p< .05). This showed low level of social support and high level of depression in HIV patients, analysis also suggested low level of esteem support and high level of depression in HIV patients. Certain reason and rationale can be coded in this context like HIV patients has low social support because of stigma attached to the disease. They may feel guilty over their behavior which might probably lead to difficulty in expression of their feelings social and interpersonal issues, low self esteem and consequently to depression.

The presence of social support helps and enables an individual to recover from illness more quickly (Roy, Stepteo, & Krischbaum, 1998). Disease support

groups are also helpful, even if the communication is online, but some diseases are more likely to motivate seeking this kind of support than others. Support seeking is more apt to occur when the disease is stigmatizing (for example, Aids, Alcoholism, Breast and Prostrate cancer) and least likely for a non-embarrassing disease such as coronary problem (Davison, Pennebaker, & Dickerson, 2000).

The absence of social support shows some disadvantage among the impacted individuals. In most cases, it can predict the deterioration of physical and mental health among the victims. The initial social support given is also a determining factor in successfully overcoming life stress. The presence of social support significantly predicts the individual's ability to cope with stress. Knowing that they are valued by others is an important psychological factor in helping them to forget the negative aspects of their lives, and thinking more positively about their environment. Social support not only helps improve a person's well-being, it affects their immune system as well. Thus, it also plays a major factor in preventing negative symptoms such as depression and anxiety (Cutrona &Russell, 1984).

Finally on the basis of the finding of the research it can be safely concluded that there exist a strong negative correlation between levels of depression and social support in HIV patients and esteem score on social support scale of HIV patients is negatively correlated to their depressive scores.

The present research findings is not only pivotal in highlighting the importance of social support in development of depressive symptoms in HIV patients but may also be instrumental in guiding the family members of patients, as the care giver needs to be sensitized about the significance of social support in determining the prognosis of the depressive symptoms in HIV patients.

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ROLE OF INDIVIDUAL AND ORGANIZATIONAL FACTORS IN LEADERSHIP

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ABSTRACT

The present study was carried out to examine the role of various individual and organizational factors in leadership styles including transformational, transactional, and laissez faire leadership style. Urdu-translated version of Multifactor Leadership Questionnaire (MLQ) was used to collect the data from the participants. A total of 300 bank managers were included in the current research. Purposive convenient sampling technique was employed in the present study. In order to investigate the mean differences, one way ANOVA and t-test were used in this research. Significant mean differences were found with respect to individual and organizational factors in leadership styles. Middle level managers were found more transformational and transactional in comparison with top and lower level managers. Male bank managers were more transformational than their female counterparts. Public sector bank managers were more transformational than private sector managers. Managers with soft skills training were more transformational than managers without soft skills training. Finally, implications, limitations, and suggestions were discussed.

INTRODUCTION

Leadership is one of the most important, sensitive, and sophisticated managerial practices. Leadership styles in the organizations vary due to the individual and organizational factors. The most important factors include gender, management level, training, education, and the type of organization. Yukl and Taber (2002) conducted an in-depth analysis of published researches on leadership by compiling 50 years of research and synthesized it to three behaviors including task, relations, and change behaviors. These three elements

are integral parts of the Full Range Leadership Theory (FRLT) proposed by Bass and Avolio (2003) which consists of three leadership styles including transformational, transactional, and laissez faire leadership style.

Transformational leadership is the most effective and active type of leadership according to theory and research. Transformational leaders are intellectually stimulating, charismatic, visionary, inspiring, and considerate of the followers' individual needs (Avolio & Bass, 2002). They are visionary who provide a compelling vision, communicate the vision to followers, encourage and motivate followers to achieve the vision. They motivate followers for self-sacrifice to leave their personal interests for the great organizational mission (Bedeian & Hunt, 2005; Yukl, 2002). They influence followers' job satisfaction, commitment to the vision, and organizational performance (Greenwald, 2008; Humphreys & Einstein, 2003).

Transactional leadership is based on an economic transaction between the leader and the followers in which leader provides rewards or punishment in return to subordinates' performance and meeting organizational goals (Bass, 2000). Transactional leaders set goals, provide promised rewards, and satisfy subordinates' immediate needs (Bryant, 2003). Transactional leadership is relatively less effective than transformational leadership according to theory and research but Bass (1998) explains that it is ideal to integrate both styles in leadership practices. Finally, laissez faire leadership style is the most ineffective and inactive style of leadership according to theory and research. Laissez faire leaders are irresponsible, unconcerned when needed, reject requests for assistance, and avoid decisional scenarios (Bass & Riggio, 2006).

FRLT, Individual and Organizational Factors

Leadership styles are influenced by a numerous individual and organizational factors. The most important factors include management level, gender, organization type, and the type of organization (i.e. public and private sector).

Management Level and Leadership Styles

Management level in the organizations plays a vital role in determining the choices for leadership styles. Transformational leadership is mostly apparent at top management whereas middle and lower level managers are either

transactional or laissez faire leaders (Sekaran, 2008). In a study on organizational and individual factors, Manning (2002) discovered that organizational status, feedback, experience, gender, and management level plays a key role in transformational leadership. Top managers rated themselves as more transformational than middle and lower level managers who portrayed less transformational leadership. Male and female managers were similar on transformational leadership style.

Gender and Leadership Styles

Studies indicate salient gender differs in leadership styles. Koh, Steers, and Terborg (1995) found that transformational and transactional leadership styles of the principals of public sector schools of Singapore displayed positive effects on the performance of the students. Eagly, Johannesen-Schmidt and van Engen, (2003) in their meta-analytic study found that female are more transformational than their male counterparts. Some studies appear with contradictory findings portraying no gender differences in leadership styles. Manning (2002) investigated that no significant gender differences were found in transformational leadership style even when the self and observer ratings were compared. van Engen, van der Leeden, and Willemsen. (2001) discovered that no differences were found in leadership styles of male and female managers.

Type of Organization and Leadership Styles

Research found mixed finding regarding the influence of the organizational type on the transformational and transactional leadership styles. Because of the complexity, uncertainty, emotionality in the workplace, public sector organizations of 21st century needs some different sort of leadership styles rather than status quo (Mandell & Pherwani, 2003). It is a time of change for public sector organizations. In this way, transformational leadership can be more appropriate to serve as change agents in the complex public sector milieu (van Dran, Prybutok, & Kappelman, 2006). Thus, new paradigms of leadership are necessary for such changing scenarios (Hitt, & Ireland, 2004). While investigating the role of transformational leadership in public sector organizations Wright and Pandey (2009) using a national sample found that transformational leadership is present in such organizations at higher level that can be attributed to various organizations factors.

Training, Education and Leadership Styles

Kelloway, Barling, and Helleur (2000) found that training and counseling based feed back plays a vital role in the development of transformational leadership. It also contributes in forming the perceptions of followers about their leaders as being more transformational. Dvir, Eden, Avolio, and Shamir (2002) found transformational leadership training was more effective than eclectic leadership training. Von Dran, Prybutok, and Kappelman (2006) illustrate that leaders can be educated transformational leadership to prepare them to serve as change agents.

H1. Top managers are more likely to adopt transformational leadership style as compared to middle and lower level managers.
H2. Middle managers are more likely to adopt transactional leadership style as compared to top and lower level managers
H3. Female bank managers are more likely to adopt transformational leadership style as compared to male managers.
H4. Male managers are more likely to employ transactional and laissez faire leadership style as compared to female managers.
H5. Public sector bank managers are more likely to display transformational leadership style as compared to private sector managers.
H6. Managers with soft skills training are more likely to employ transformational leadership style as compared to managers without soft skills training.

METHOD

The main objective of the present study was to examine the role of various individual factors (gender and training) and organizational factors (management level, public and private sector) in opting specific leadership styles by the bank managers.

Participants

A purposive sample of 300 bank managers including 285 male and 15 female, top managers (n = 13), middle managers (n = 31) and lower level (n = 256) managers of public sector (n = 130), and private sector (n = 170) was participated in the present study. 254 participants of the sample were from national and 46 from multinational banks. During the selection of the sample,

prior defined full time job experience of at least one year and supervision of five employees was insured to confirm that the participants were practically involved in the different relevant corporate operations including leadership and decision making practices.

Measures

Multifactor Leadership Questionnaire (MLQ, Form-5X) was originally developed by Bass and Avolio (1990) and it was translated in Urdu by Almas (2007). The questionnaire is a self report measure that assesses the participant's leader's perception regarding his or her leadership style in each of the factor in the Full Range Theory of Leadership. MLQ comprise of three sub scales including transformational, transactional, and laissez faire leadership style. The questionnaire consists of 36 items in which transformational leadership style consist of 20 items, transactional leadership style comprise of 12 items and laissez faire leadership style consists of 4 items. MLQ is a questionnaire with Likert-type five point rating scale.

RESULTS

In the current research, t-test and One Way Analysis of Variance (ANOVA) were employed in order to identify the mean differences in leadership styles due to various individual and organizational factors.

Table 1

Mean, standard deviation and F values for managers belonging top, middle, and lower level management on sub scales of Multifactor Leadership Questionnaire

GDMSQ	Top Management (n = 13)		Middle Management (n = 31)		Lower Management (n = 256)			
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*	*p*
Transformational	84.69	5.202	85.90	9.210	80.14	9.506	6.367	.002
Transactional	40.30	4.589	43.45	5.447	40.85	4.837	4.072	.018
Laissez faire	7.00	3.366	7.67	2.856	7.97	3.012	.741	.478

Between groups $df = 2$; Within group $df = 297$; Groups total $df = 299$ ($N = 300$)

Table 1 shows the results of One Way Analysis of Variance for the subscales of MLQ with respect to three management levels including top,

middle, and lower level management. The results indicate significant differences in transformational ($F = 6.367$, $p < .01$) and transactional leadership style ($F = 4.072$, $p < .05$). The results show no significant differences in laissez faire leadership style ($F = .741$, $p > .05$).

Table 2
Mean, standard deviation and t values for male and female managers on sub scales of Multifactor Leadership Questionnaire (N = 300)

GDMSQ	Male Managers ($n = 285$)		Female Managers ($n = 15$)		t	p
	M	SD	M	SD		
Transformational	81.20	9.363	75.81	11.072	2.153	.032
Transactional	41.21	4.950	38.87	4.373	1.793	.074
Laissez faire	7.86	3.004	8.65	3.123	-.997	.320

$df = 298$

Table 2 shows mean differences between males and females on subscales of MLQ. The results shows significant mean differences on the subscale of transformational ($t = 2.153$, $df = 298$, $p < .05$) for male and female bank managers. No significant mean differences are found on the subscale of transactional ($t = 1.793$, $df = 298$, $p > .05$) and laissez faire leadership style ($t = -.997$, $df = 298$, $p > .05$) for male and female bank managers.

Table 3
Mean, standard deviation and t values for managers who received and who did not receive soft skills training on sub scales of MLQ (N = 300)

GDMSQ	Trained ($n = 240$)		Untrained ($n = 60$)		t	p
	M	SD	M	SD		
Transformational	81.53	9.022	78.47	10.983	2.261	.024
Transactional	41.32	4.945	40.191	4.869	1.595	.112
Laissez faire	7.80	2.916	8.300	3.356	-1.150	.251

$df = 298$

Table 3 shows mean differences between managers who received soft skills training and those who do not receive soft skills training on subscales of MLQ. The results shows significant mean differences on the subscale of

transformational leadership style (t = 2.261, df = 298, p < .05) with respect to soft skills training. No significant mean differences were found on transactional (t = 1.595, df = 298, p > .05), and laissez faire leadership style (t = -1.150, df = 298, p > .05).

Table 4
Mean, standard deviation and t values for managers belonging to public and private sector banks on sub scales of MLQ (N = 300)

GDMSQ	Public Sector (n = 130)		Private Sector (n = 170)			
	M	*SD*	*M*	*SD*	*t*	*p*
Transformational	83.38	9.226	79.06	9.316	4.001	.000
Transactional	41.75	4.866	40.59	4.956	2.020	.044
Laissez faire	8.19	2.927	7.67	3.061	1.464	.144

df = 298

Table 5 shows mean differences between managers belonging to public and private sector banks on subscales of MLQ. The results shows significant mean differences on the subscale of transformational (t = 4.001, df = 298, p < .0001) and transactional leadership style (t = 2.020, df = 298, p < .05). No significant mean differences were found on laissez faire leadership style (t = -1.464, df = 298, p > .05).

DISCUSSION

Leadership is a multifaceted and multidimensional phenomenon which is influenced by various individual and organizational factors. Management level and gender plays a vital role in this regard. Stevens and Ash (2001) illustrate that situational and individual factors play a vital role in managerial performance.

In the present study 1st hypothesis "top managers are more likely to adopt transformational leadership style as compared to middle and lower level managers" was not supported as middle managers appeared to be more transformational as compared to top managers. Transformational leadership of Bass (2000) is based on developing true relationship with followers and empowering them by acknowledging their individual needs. In the past daca, there were abrupt changes in banking sector but still most of the banks are tall structure where the top managers and CEO's hold maximum unshared power.

Such trends are no longer same in multinational banks but they still exist in public sector and recently privatized private sector banks. Iwata (2004) illustrates that the superior need for power sharing is still not being accepted and acknowledged by CEO's. There are serious concerns regarding the distribution of authority and power separation by senior management in organizations. In this scenario, such accommodation and personalization of power may work as a road stone on the way to practice transformational leadership by the top managers in banks.

In the present study, managers belonging to private sector banks were more in number then managers belonging to public sector banks. In their study with Pakistani bank managers, Akhtar and Butt (2002) found that managers belonging to public sector banks use people oriented leadership style whereas managers from private sector banks employ task oriented leadership style. It is another reason that top managers did not display more transformational leadership which is by nature people oriented. Finally, Egri and Herman (2000) found that leaders in non-profit product and service organizations were more transformational than leaders in profit-organizations. In this scenario, banks included in the present study are purely service provider profit organizations.

The current study was limited to the self-ratings by the participants that may lead to single source bias and fake good on the part of male managers. Multiple ratings play a vital role to counter such biases. Manning (2002) found that male and female top managers who rated themselves as more transformational were rated by their subordinates as less transformational. In the same managers middle and lower mangers who rated themselves as less transformational were rated by their subordinates as more transformational.

The 2nd hypothesis "middle managers are more likely to adopt transactional leadership style as compared to top and lower level managers" was supported in the present research. In most of the organizations, middle management serves as a bridge between top and lower level management. Middle managers receive information from strategic management and transfer it to operational management (Mintzberg, 1983). In this way middle managers play a true transactional role. Such transaction can be economic, political, and/or psychological in nature (Burns, 1978).

The 3rd hypothesis "female bank managers are more likely to adopt transformational leadership style as compared to male managers" was not

supported in the present study as male managers displayed more transformational leadership in comparison to female managers. For a long period of time women are under represented in the superior corporate positions and they suffered from glass ceiling—world wide trend of assigning low authority and appointing women on lower level positions in the management (Powel & Graves, 2003). In this way, women were deprived of superior positions and adjacent practices. Bass and Avolio (2000) illustrate that some collectivist societies like China offers ready-made chances for the people to become transformational leader. In Pakistan, most of the top management positions are being enjoyed by male managers. Out of 47 banks in Pakistan, only one bank's president/CEO is a woman which is First Women Bank, again it is a women specific bank (State Bank of Pakistan, 2008). Such unavailability of women on top level management automatically favor male managers to become transformational leaders as transformational leadership is more observed with people on top positions (Bass, 1985). These current results are consistent with Jones and Rudd's (2007) findings that male leaders employ more transformational leadership style than female leaders.

Again, multiple ratings make a difference. In a study with the personnel of an international bank of Australia, Carless (1998) found that superiors rated female as more transformational leaders then male managers. In the same manner, female rated themselves as more transformational leaders then their male counterparts whereas their subordinates rated both male and female as equally transformational. Several researchers (Mandell & Pherwani, 2003; Reuvers, van Engen, Vinkenburg, & Wilson-Evered, 2008) suggest that that no gender differences exist in transformational leadership style.

The 4th hypothesis "male managers are more likely to employ transactional and laissez faire leadership style as compared to female managers" was also not supported as no significant mean differences were found between male and female manager on transactional and laissez faire leadership style. Engen, Leeden, and Willemsen (2001) suggest that gender has a very slight or no relationship with leadership style as well as leadership effectiveness.

The 5th hypothesis was supported in this study. Public sector managers were more transformational than managers belonging to private sector. In public sector, traditional management practices are still existent to some extent. Most of the managers included in the present study were middle-aged and old-age employees who seen the time when management practices in Pakistan were

dominantly relationship oriented. No doubt these trends changed a lot with privatization of national banks but in public sector banks such people-centered practices are still visible. Akhtar and Butt (2002) discovered that public sector employees are people oriented and private sector employees are task oriented leaders.

Parry (2003) explains that public sector banks have an inherent pressure to effectively cope with the abrupt changes and global challenges as well as providing satisfactory services to their customers. While maintaining the national standards, public sector organizations feel squeezed between the forces of stabling national competence and ensuring worth in international completion. In this regard, transformational leadership style plays a vital role in organizational performance and innovation. Stephen and Roberts (2004) illustrates that in the past decades, the organizational competence and success were based on local standards but globalization of corporate changed the entire scenario. Now the global comparisons are made to evaluate the organizational success. In the past, products creations and its exchange was the main concern but now the competition shifts to idea generation. Shifts in technology and changing social standards also necessitate transformation. After the foreign investments in banking sector of Pakistan, local banks faced multiple challenges to conform the changing social standards, adopting new technology, and developing banks according to global standards. Consequently, managers from national banks appeared to be more transformational than multinational bank managers.

The 6th hypothesis was supported in this study. Managers having soft skills training displayed more transformational leadership than managers without soft skills training. This reflects that training plays a vital role in the development of transformational leadership. Kotter (1999) explains that people can perform effective leadership functions by fine selection, efficient training and support. Dvir, Eden, Avolio, and Shamir (2002) argue that transformational leadership training increases the outcomes related to followers.

Conclusion

Significant mean differences were found in leadership styles with respect to individual and organizational factors. The study provides a sophisticated male edge in leadership as male bank managers were more transformational than female bank managers. In the same manner, training portrayed significant influences in adopting transformational leadership style. The study also shows

leadership competence of public-sector banks as public sector bank managers displayed more transformational leadership than their private counterparts.

Limitations

The presents study was based on MLQ which is a self reported measure. In this research, the instruments were rated only by the participants of the study. It could be more appropriate to do cross ratings by their immediate followers and bosses. Another limitation of the study is that various situational and dispositional factors were not controlled in this research. Beside all these limitations, the study has numerous practical and theoretical implications.

Implications

Bass (1985) explains that transformational leadership is more effective in collectivist cultures. In this research, role of management level and gender have both theoretical and empirical bases. This shows that, leadership factors contribute differently in Pakistani culture. Public sector managers were more transformational. Efforts should be made to keep such trends on going. Managers with soft skills training displayed transformational leadership style. Institutions providing professional education should train the future executives that how to harness transformational leadership qualities. Wonacott (2001) explains that transformational leadership is gaining important space in career and technical education. Such practices should also be visible in Pakistani institutions.

Finally, organizations should select the people who wither have potential to becomes transformational leaders or they are able to be trained like transformational leaders (Jex, 2002). In this regard, the selection of branch chairs and senior managers must be made on the basis of their transformational leadership behaviors (Brown & Mushavi, 2002).

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EXPLORING PREDICTORS OF COMPULSIVE BUYING BEHAVIOR AMONG YOUNG COLLEGE/UNIVERSITY STUDENTS

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ABSTRACT

The objective of the present study is to find out the significance of Materialism and self-esteem as the predictors of compulsive buying behavior among young college/university students belongingto middle socioeconomic status. 155 students between the ages of 18 years and 25 years participated in the research, and completed measures of compulsive buying (Edwards, 1993), Material value scale (Richins, 2004) and self-esteem (Rosenberg 1965). Multiple regression analysis was used to assess the hypothesized relationship of Materialism and self esteem with compulsive buying behavior which yields significant results reflecting Materialism and Self esteem as significant predictors of compulsive buying behavior (R^2 = .113, F (2, 152) = 9.646, p<.001).

INTRODUCTION

Compulsive buying, though not included in the listing of psychiatric disorders, however, may be associated with many psychiatric disorders listed in DSM IV TR (2000), is characterize by an uncontrollable and overwhelming urge to buy. The satisfaction of the urge may end up with a disappointment with self (Koran et al., 2006), feeling of guilt and embarrassment (O'Guinn & Faber, 1989). What makes the psychologists more attentive toward this behavior is the resulting consequences of behavior as Koran, Faber, Aboujaoude et al. (2006)

mentioned from various sources (McElroy, et al., 1994., O'Guinn & Faber, 1989, Christenson, et al., 1994., Faber, et al., 1987, Faber, 2004) include guilt or remorse, excessive debt, bankruptcy, family conflict, divorce, illegal activities, such as writing bad checks and embezzlement, and suicide attempts.

Besides its undesirable consequences compulsive buying behavior may serve a person to maintain an elevated sense of self, as he / she consider social status highly associated with the activity of buying (d'Astous, 1990; Elliott, 1994; Roberts, 1998). Among many strongly associated factors with compulsive buying self esteem deficit is the important one (see O'Guinn & Faber, 1989). d'Astous (1990) and Elliott, (1994) also found compulsive buyers as having low self esteem. According to Elliott, (1994) and Friese and Koenig, (1993), purchasing consumer goods is thus a significant element in the construction and maintenance of consumers' self-identities, in the attainment of social status, and is associated with feeling good.

The association not only limits to the construction of a positive self image, another significant associated factor of compulsive buying is materialism (Jalees, 2007; Mowen & Spears, 1999 as cited in Yurchisin and Johnson, 2004; Dittmar, 2000). Dittmar, Beattie, and Friese (1996) found that people with high compulsive buying behavior tend to be more materialistic and perceive more self discrepancy as compared to people with low compulsive buying behavior; the buying on impulse thus help them improve their mood and increase in social standing. This improvement in social standing also evidenced by Featherstone (1991) who stated that materials goods are consumed also for their symbolic significance of life style, identity and taste. We can extend this to an effort to improve the social standing and to serve the purpose of enhancement of self esteem.

Considering the importance of these two variables in determining the behavior of compulsive buying linked to several disorders including obsessive-compulsive disorder (Hollander, 1993), addictive disorders (Krych, 1989), and mood disorders (Lejoyeux et al., 1996) and else, present study is an endeavor to explore the predictive relationship of Self-esteem and Materialism with impulse buying behavior in young university students between ages of 18-25 years, as according to Kuzma and Black (2006) compulsive buying behavior usually begins in late adolescence or early adulthood, the age range in which individuals are typically enrolled in college.

METHOD

Participants

The sample of the research comprised of 155 adult students (male=78 & female=77) enrolled in two public sector colleges/universities of Karachi, Pakistan. Convenience sampling technique was used for data collection. The age of the participants was ranged from 18 years to 25 years (Mean= 21.75 & Std.Deviation= 1.928). University students from middle socio-economic status were only included in sample

Measures

Compulsive Buying Scale

Measure of compulsive buying behavior (Edwards, 1993) consists of 10 items represented five components of compulsive buying. These components were the tendency to spend the compulsion or drive to spend, feelings about shopping and spending, dysfunctional spending, and post-purchase guilt.

Material Value scale

Material value scale (Richins, 2004) measured three components of materialism, a) possession-defined success, which was defined as the degree to which individuals judge their own and other people's success in terms of the amount of material possessions they own, b) acquisition centrality, which was defined as the degree to which an individual places material possessions at the center of his or her life and acquisition as the pursuit of happiness, which was defined as the degree to which one believes that ownership of material possessions is a key to life satisfaction and well being.

Rosenberg Self Esteem Scale

Rosenberg Self Esteem scale (Rosenberg, 1965) measures the global self-esteem. The scale consists of 10 items answered on a five-point Likert scale from 'strongly agree' to 'strongly disagree'. Negative items are reverse coded so that a high score continues to indicate high self-esteem. The possible range of scores for this scale is 10 to 50.

Procedure

After getting formal permission from authorities of targeted educational organizations, the participants were approached through their head of department / teachers at their departments. Confidentiality regarding information and results was assured. First the demographic data sheet was filled in. It consisted of items focusing on an individual's demographic information e.g. date of birth, sex, socio-economic status, etc. Then three scales, compulsive buying scale, Material value scale and self-esteem were administered in order to measure the level of compulsive buying behavior, materialism and self-esteem of participants.

Statistical Analysis

Descriptive Statistic was computed to analyze sample characteristics. Regression analysis was used in order to explore the predictive relationship of materialism and self-esteem with compulsive buying behavior. Statistical package for Social Sciences (SPSS Vol.12) was used for Statistical analysis.

RESULTS

Table 1
Demographic characteristics of the sample

Demographic variable		N	%
Gender	Male	78	50.3
	Female	77	49.7
Age	Mean	21.75	
Total Sample	Standard Deviation	1.928	
Age Males	Mean	21.74	
	Standard Deviation	1.950	
Age Females	Mean	21.76	
	Standard Deviation	1.918	

Table 2
Descriptive Statistic

Variables	Mean	Std. Dev	Minimum	Maximum
Compulsive Buying	27.80	7.10	10	45
Materialism	45.78	8.05	28	74
Self esteem	20.00	3.82	8	30

Table 3
Summary of Multiple Regression analysis with Materialism and Self Esteem as Predictors of Compulsive Buying

Predictors	R	R^2	Adjusted R^2	Durbin Watson	F	df	sig
Materialism and Self Esteem	.336	.113	.101	2.059	9.646	2, 152	.001

Multiple regression analysis yields significant results reflecting Materialism and Self esteem as significant predictors of compulsive buying causing 11 % variation [R^2 = .113, F (2, 152) = 9.646, p<.001), however, further analysis reflect only materialism appears as potential predictor of compulsive buying (t = 4.380, p<.001), while self esteem seems to have very little and not significant role (t = -.156, p> .876) in determining the behavior of compulsive buying (see table 3 & 4).

Table 4
Coefficients

Model	Un standardized Coefficients		Standardized Coefficients	t	p
	B	SE	Beta		
Constant	14.715	4.307		3.416	.001
Materialism	.296	.067	.315	4.380	.000
Self Esteem	-.022	.142	-.012	-.156	.876

Table 5
Summary of Multiple Regression analysis with Materialism and Self Esteem as Predictors of Compulsive Buying in Male and Female Participants

Male Participants							
Predictors	**R**	**R^2**	**Adjusted R^2**	**Durbin Watson**	**F**	**df**	**sig**
Materialism and Self Esteem	.464	.216	.195	2.083	10.313	2, 75	.001
Female Participants							
Materialism and Self Esteem	.259	.067	.042	1.552	2.651	2, 74	.077

Multiple regression analysis yields significant results, reflecting in male , Materialism and Self esteem as significant predictors of compulsive buying causing 21 % variation [R^2 = .216, F (2, 75) = 10.313, p<.001) and the overall model for the female participants appear as non significant[R^2 = .67, F (2, 74) = 2.651, p>.05). Self-esteem sustains its non-significant role in the prediction of compulsive buying behavior in both samples.

However, further analysis reflect in male only materialism appears as potential predictor of compulsive buying (t = 4.388, p< .001) while self esteem seems to have very little and not significant role (t = -1.001, p> .320) in determining the behavior of compulsive buying. In female participants analysis also reflect only materialism appears as potential predictor of compulsive buying (t = 2.074, p<. 022) while self esteem seems to have very little and not significant role (t = 1.034, p> .305) in determining the behavior of compulsive buying. (see table 5,6 & 7)

Table 6
Summary of Coefficients in Male Participants

Model	Un standardized Coefficients		Standardized Coefficients	t	p
	B	SE	Beta		
Constant	11.164	6.123		1.823	.072
Materialism	.448	.102	.469	4.388	.000
Self Esteem	-.190	.190	-.102	-1.001	.320

Table 7
Summary of Coefficients in Female Participants

Model	Un standardized Coefficients		Standardized Coefficients	t	p
	B	SE	Beta		
Constant	14.350	6.154		2.332	.022
Materialism	.184	.089	.233	2.074	.042
Self Esteem	.225	.218	.116	1.034	.305

DISCUSSION

The notion that materialism and self-esteem may be the associated factors of compulsive buying behavior in students in early adulthood get support from the results of the present study. Overall model including materialism and self esteem appears as significant predictor of compulsive buying behavior, however further analysis indicate that only materialism is the variable which significantly predict the compulsive buying behavior, self esteem has very limited and not significant role in this association.

The findings seem more interesting when the model analyzed for males and females separately. Astonishingly results reveals that the model is significant only in male participants, reflecting that compulsive buying behavior in males is significantly determined by their materialistic tendencies, however self esteem also did not get any support in male sample too. In females besides overall model being not significant materialism individually appears to be related to the

compulsive buying behavior. The overall not significant findings may be a result of any collinearity in the scores of self esteem and materialism in female participants. It would be of great interest to note that in female sample the relationship of self esteem with compulsive buying behavior is positive unlike male participant, reflecting greater compulsive buying behavior in females with higher self esteem.

Results may be more understandable when we overview them in context of cultural factors. In Pakistani culture, where males are considered as bread winners of the family, and are the major earning sources of the family, they consider the responsibility to provide the family with material possessions and happiness. However, in student population this responsibility is lesser in the sense that they still are in the role where they usually have lesser responsibilities to look after family. Their major focus is on their studies, and on how they project their life style and their personalities to the people around. It may be a transitory phase when they tend to be more materialistic and evaluate their selves in terms of their possessions and also have concerns that other may evaluate them on same criteria. According to Richins and Dawson (1992) materialistic individuals believed that material possessions communicated messages to others concerning one's social position and provided with a sense of happiness. However in this context self esteem seems not related as this may be a transitory characteristic related to a phase of life.

In contrast, for female sample the scenario is quite different. Besides the same explanation also suitable for them, the positive relationship of self esteem with compulsive buying behavior reflect some other interesting trends which may require further investigations. It seems that usual assumption of association of low self esteem with materialism and compulsive buying is not true for females especially of student population. The impulsive buying behavior may be more closely related to the life style of female university student which is very much influenced by fashion trends and being looking good, and distinctive. Though Sirgy (1998) is of the view that, the larger gap between the young people's ideal and actual standard of living triggers the desire for materialistic possessions, which may be resulting in compulsive buying behavior; it may also be a fact that people with already developed standard of living may also go for some behavior just to confirm the norm which has not much to do with self esteem.

However, research findings reflect need for further study keeping in mind the significance of population in mind. The future study with adult married

and non student population may yield different results. Similarly keeping in view the nature of compulsive buying will be more specific for future research. Besides the studies like Hanley, and Wilhelm (1992) that support the theoretical model that compulsive spenders have relatively lower self-esteem than their normal counter parts; there are some researcher (Phau and Woo, 2008) who conclude that sample of the study make a difference and it is not adequate to generalize these findings beyond the young population; also the distinction of fashion and non fashion consumption require to be distinguished before generalizing the results. Similarly because in present research sample is of young student population, it would not be better to generalize it to adult population running their households and having more responsibilities.

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TRANSLATION AND ADAPTATION OF BRIEF FEAR OF NEGATIVE EVALUATION (BFNE) SCALE IN PAKISTAN

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ABSTRACT

The objective of the present study is to translate and adapt Brief Fear of Negative Evaluation Scale (BFNE; Leary, 1983) in national language (Urdu) and estimation of its psychometric properties. After the process of Forward, back translation and committee approach the linguistic equivalence of the translated version of the scale was assessed on a sample of 71 bilingual adolescent students with the age range of 16-19 years, randomly selected from different schools of Karachi. The estimate shows significant results (r= .614) at .01 significant level. The split half reliability estimate was found to be .788, which is significant at .01 probability level. The Cronbach's alpha of the Urdu version of the BFNE scale is .762 indicating considerable internal consistency of the translated version of BFNE. The Urdu version of BFNE has found to be a reliable scale for adolescents in Pakistan.

INTRODUCTION

Evaluation by others may be a fear of many, however, when it may be on heightened intensity it may influence person's various aspect of life, and may impact on his social and psychological functioning as well as interpersonal relationships. This fear may extend to such a height that it can hamper a person's functioning severely. In social situations the fear about the interaction is mediated by differences in the degree to which individuals worry about being negatively evaluated by others. People with high concerns related to negative evaluation by others tend to be more avoidant to the situations which may lead to the negative evaluation, as well as are more responsive to the situational factors

related to negative evaluation and perceptions compare to less anxious people (Leary, 1983).

Fear of Negative Evaluation Scale (FNE) is a measure developed by Watson and Friend (1969), that is most commonly used to measure degree to which individual experience apprehensiveness at the prospect of being negatively evaluated. It is consisted of 30 true-false items. FNE is a reliable scale having Cronbach's alpha of .92 and test retest reliability of .68 (Watson & Friend, 1969). Although the scale of FNE is widely used measure in different researches, but its utility is sometimes compromised due to its length. Leary (1983a) developed a brief version of FNE (BFNE) that is convenient for quick and repeated administrations. On this questionnaire, respondents rate the degree to which each of 12 statements applies to them on a 5-point Likert scale (1 not at all characteristic of me; 5 extremely characteristic of me). Total scores range from 12 to 60. The items selected for inclusion in the BFNE had satisfactory item-total correlations with the original scale, ranging from .43 to .75 (Leary, 1983a). The brief version of the scale also correlates highly with the original scale ($r = .96$; Leary, 1983a; Weeks & Stewart, 2001) and the reliability of the BFNE has been established using non-clinical samples. A high level of internal consistency was obtained for the items comprising the BFNE (alpha =.90) and a test-retest reliability coefficient of .75 was found over a 4-week interval (Leary, 1983a).

Although, the psychometric properties of the BFNE have been supported through numerous studies with undergraduate samples but it has been standardized on western cultures which can not be generalized on other cultures as people living in different parts of the world differ in their culture, language and even in their thinking patterns. Thus the manifestations of different behaviors and especially the psychological problems are different. The assessments and treatment of such problems in different cultures require specific tools that best represent that culture. During the past several decades, the unique challenges of cross-cultural counseling and assessment have attracted considerable attention. Cross-cultural assessment has become a sensitive issue due to specific concerns regarding the use of standardized tests across cultures (Butcher & Garcia, 1978). Due to these differences in cultures there is a need to translate and adapt the tools according to requirements of that culture. Adapting tests for administration to different language groups and administering the adapted tests to examinees of different cultures is a practice that has a long history in the field of psychological assessment. Work of Terman (1916) indicates how long ago researchers were aware of problems related to using instruments developed for one population to

assess attributes of a second population that may differ in background and culture.

Adaptation of instruments is important because it allows for greater generalizability and allows for investigation of differences among a growing diverse population. It can lead to increased fairness in assessment by allowing individuals to be assessed in the language of their choice (Hambleton & Kanjee, 1995).

BFNE has been translated and adapted in Aranian Language. Tavoli and colleagues (2009) studied the psychometric properties of Aranian version. Cronbach's alpha coefficient was .90 for non-clinical group, and was .82 for clinical group. In addition, test-retest reliability of the BFNE showed satisfactory results (Intraclass correlation coefficient = .71, $p < .001$).

The purpose of the present study is to translate and adapt the Brief Fear of Negative Evaluation Scale in Pakistani culture so that the cultural contamination in assessment of problems can be overcome by using a standardized tool.

METHOD

In the present study the Brief Fear of Negative Evaluation Scale (BFNE; Leary, 1983), was selected for the purpose of translation and adaptation. First of all the permission to use the scale was obtained from the author of the scale, Mark Leary, Duke University, through fulfillment of all requirements. A brief description of this scale is provided before the details of the study.

Brief Fear of Negative Evaluation Scale (Brief-FNE; Leary, 1983)

It is a 12 item five point intensity likert scale from 'not at all characteristic of me to extremely characteristic of me', assessing apprehension or distress as a result of other's evaluations. The score ranges from 12 to 60 with high scores indicating greater fear of negative evaluation. This brief version highly correlates (.96) with the original scale, has high internal consistency (.90) and a test retest correlation of .75 with a 4 week interval (Leary, 1983).

Participants and Procedure

For the process of linguistic equivalence a sample of 71 students was taken from different schools of Karachi (Pakistan) with the consent of the authorities of selected schools. The age range of the sample was from 16years to 19years.

The process of developing equivalent instruments in more than one language involves not only translation of the test items and test materials, but other changes such as changes in item format and testing procedures (test adaptation). Multiple issues pertaining to test translation need to be considered in order to have instruments that are appropriate for cross-cultural comparisons. According to Erelkan (1998) a good translation must reflect not only the meaning of the original item, but should also try to maintain the same relevance, intrinsic interest and familiarity of the item content, otherwise what the item measures may be altered.

The process of translation and adaptation of Brief Fear of Negative Evaluation Scale (BFNE) was carried out using the following steps:

i) Formulation of Committee and Expert Panel:

Weiner, Freedheim, Graham and Naglieri (2003) discussed the committee approach first described by Brislin (1980 as cited in Weiner et al. 2003), that 'the members of the committee need to be not only bilingual but they need to be thoroughly familiar with both cultures; the construct measured on the test and with general principles'. **Committee Approach** was used to select the best translated items and to modify the items according to the culture. The committee for present research included six psychologists including four PhD doctors and three M.phil interness of Clinical psychology, who were familiar with the construct measured in the test, the Pakistani culture and also with the principles of adaptation.

ii) Forward Translation:

Test translation is only one of the steps in the process of test adaptation. With a forward-translation design, a single translator, or preferably, a group of translators adapt the test from the source language to the target language (Hambleton, 2005). For this purpose the scale was given to four qualified and

experienced translators (PhD in clinical Psychology) who translated the original English of the Brief Fear of Negative Evaluation Scale into the target language. The committee then conducted meetings to examine and review the translations. Forward translations were reviewed by committee members individually and independently and revisions in the items were made according to the suggestions and comments of the members. Then a draft was prepared for the back-translation.

iii) Backward Translation:

In backward Translation, after adapting a test from the source language to the target language, different translators take the adapted test (in the target language) and adapt back to the source language (Hambleton, 2005). In this step bilingual expert, who had not previously seen the original version of the test, translated the translated version of scale back into English. The **back-translation** was compared with the original version, and judgments were made about their equivalence by four psychologists and translated items were revised where necessary. Some of the items after back translations not related to the original concepts therefore those were modified and rephrased by the experts. Then the scale was finally reviewed by the panel experts for the translation inaccuracies and a final draft was prepared for a linguistic study.

Linguistic equivalence/ Cross language validation:

In Linguistic equivalence the emphasis is placed on the linguistic accuracy of item translations (Trimble, 2007). It means the similar meanings of word across cultures that the items of the original and new survey have similar meaning.

This purpose may be achieved by administering the two language versions to a group of test takers, proficient in both Urdu and English. The resulting differences on the two administrations thus supposed to be a function of non equivalence between two language version instead of a person's difficulty in understanding of language.

For the process of **linguistic equivalence** the Urdu version of BFNE was administered on randomly selected bilingual adolescent students then again after the interval of 4 days the original (English version) of the BFNE was administered to the same respondents.

Estimation of Split Half Reliability of BFNE

Split-half reliability is a coefficient obtained by dividing a test into halves, correlating the scores on each half; (longer tests tend to be more reliable). The split can be based on odd versus even numbered items, randomly selecting items, or manually balancing content and difficulty (Anastasi, 1954). The Urdu version of BFNE was divided into two halves i.e. (a) Consisted of odd items (b) consisted of even items of the scale.

Internal Consistency of BFNE

Coefficient alpha is a useful measure as it provides an excellent estimate of internal consistency.

Statistical Analysis

For the interpretation of results, the data was statistically analyzed using the Statistical Package for Social Sciences (SPSS, Version 12.0). Pearson Product Moment Correlation, and Cronbach's alpha was calculated.

RESULTS

Table 1
Linguistic equivalence of Urdu and English Version of BFNE

Item NO	Pearson r with English items	Significance
Total	.614	.01
1	.426	.01
2	.311	.01
3	.326	.01
4	.142	.23
5	.415	.01
6	.364	.01
7	.144	.23
8	.327	.01
9	.357	.01
10	.329	.01
11	.327	.01
12	.444	.01

N=71; 4-days inter test interval

Table 2
Split Half Reliability of BFNE

Cronbach's Alpha		r	significance
	Part a	.659	.01
	Part b	.474	.01
Correlation Between Forms		.673	.01
Spearman-Brown Coefficient		.805	.01

a The items are: 1, 3, 5, 7, 9, 11 b The items are: 2, 4, 6, 8, 10, 12

Table 3
Cronbach's alpha of original version and Urdu version of BFNE

Scale	Cronbach's alpha of original version of BFNE	Cronbach's alpha of Urdu version of BFNE
BFNE	.92	.762

DISCUSSION

The BFNE is a well-known instrument for measuring fear of negative evaluation from others and is relevant to the study of human social behavior in general. The focus of the present study was the adaptation of BFNE in Pakistan and to explore its reliability with the use of split half reliability. In general, the findings showed promising results.

The linguistic equivalence of the translated version was calculated after the procedures of test translation and adaptation to find out the equivalence between the original version of the BFNE (English) and the adapted version (Urdu) of the test. By this procedure the calculated results show significant correlation between the two versions of BFNE, which are shown in Table 1 (r=.614). Results show the item by item correlation (correlations between Urdu item and English items). The correlation between the original items and the Urdu items is strong (significant at .01 level) except for the items 4 and 7 that showing weak correlations.

The split half reliability estimate for the Urdu version of Brief Fear of Negative Evaluation Scale was obtained as .788 that is significant at .01 probability level. These results indicate the consistency among the two halves

(even and odd numbered items) of Urdu version of the BFNE. The reliability results are shown in Table 2. Similarly there is a significant correlation between the two halves of the scale (r=.673).

The estimates of cronbach's alpha for total score of fear of negative evaluation is .762. The comparison of alpha values of total score of original English and Urdu version are also given in Table 3, which shows significant similarities between both versions.

The BFNE has received support from different cultures and languages. It has been translated and adapted in Aramian Language. This instrument continues to be useful in understanding the problems of evaluative anxiety in adolescents. Its translation and adaptation can help the health professionals to understand the problems in the cultural context and can also be useful in its application in researchea.

In conclusion the reliability estimates and the cross language equivalence of the Urdu version of BFNE presents the scale to be an acceptable and reliable measure of apprehension in the social situations within the context of Pakistani culture.

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GENDER DIFFERENCES IN NON VERBAL REASONING SKILLS

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ABSTRACT

The objective of present study is to investigate the difference between the male and female adolescents on a test of non verbal abstract reasoning skills, specifically with reference to age, that is in adolescents of age ranges 12 to 14 years, and in adolescents with age ranges between 15 to 18 years. In the present study 402 adolescent students participated, with age in the range of 12 to 18 years. Among these 402 students 230 were males while 172 were females. Data was obtained with the permission of the authorities from various educational institutes of Rawalpindi and Lahore city. Demographic information was obtained followed by administration of Standard Progressive Matrices, a test of non verbal reasoning. Data was analyzed for gender differences by use of t test on .05 level of significance. Results reflect non significant gender differences on non verbal reasoning skills, however, for while distributing data in two groups that is adolescents aged 12 to 14 years, and adolescents aged 15 to 18 years, the difference in the first group was in favor of females, yet not significant. While for the later age group the difference was significant and is in favor of males. The gender differences in non verbal reasoning abilities are subjected to age. Further research considering more age ranges will be more conclusive.

INTRODUCTION

Sex differences in intellectual abilities have been a topic of interest of researchers since early 20th century. However, a number of scholars failed to find significant evidences in favor of difference (e.g. Mackintosh, 1996; Jensen, 1998;

Halpern, 2000; Ahmad & Riaz, 2007; Ahmad, Khanam, Riaz, Lynn, 2008) while those found were so trivial that that they can not be considered as a satisfactory evidence (e.g. Terman, 1916). A number of researchers have also explored the existing differences across gender in various abilities related to intelligence. In this context found girls as scored higher than boys on scales of grammar, spelling, and perceptual speed; boys had higher means on measures of spatial visualization, high school mathematics, and mechanical aptitude; while no average gender differences were found on tests of verbal reasoning, arithmetic, and figural reasoning.

In a Meta analysis Hyde and Lynn (1988) observed that both male and females have specific kind of abilities for example females being more proficient in speech related verbal abilities while males being better in analogies related verbal abilities. Lynn and Irwing (2004) thus conclude and suggest that instead of conducting Meta analysis on verbal measures, which are too broad it may be better to conduct such analyses on relatively narrow categories. For the purpose they presented a Meta analysis of 57 studies and found difference among males and females but after age of 15 years. From age of 15 years males exhibit a clear advantage in reasoning abilities over their female counterparts. While till the age of 14 years no sex differences were observed.

For the purpose current study was designed to evaluate sex differences in adolescents on performance on Standard progressive matrices, a test of non verbal reasoning abilities, highly loaded on g factor. However presents study divides adolescents in two age ranges that is, 12 to 14 years and 15 to 18 years, in order to assess gender differences in developmental perspective.

METHOD

Participants

The sample of the present study comprised of 402 adolescents (230 males, 172 females) with age range of 12 to 18 years, selected from various schools of Rawalpindi and Lahore. Care was taken to include appropriate representation across socioeconomic status. Later on obtained sample was divided in two groups for analysis purposes according to age that is, a group of adolescents with age range of 12 to 14 years and a group of adolescents with age range of 15 to 18 years.

Measures

Demographic Form

A demographic form inquiring age, socioeconomic status, grade and other necessary information was devised for the purpose of research.

Standard Progressive Matrices

Standard Progressive Matrices (Raven, Court & Raven, 1979) is a test of non verbal abstract reasoning and was used in the present research.

Procedure

Consent from authorities of various schools from lower, middle and upper socioeconomic classes was obtained after communicating the nature and purpose of the study. Rapport was established with the adolescents approached in their class rooms and with the establishment of rapport and informed consent, adolescents were informed about the use of study and the voluntary nature of their participation as well as the issue of confidentiality and their right to withdraw from study if they want to. Demographic information was obtained and then Standard Progressive Matrices was administered in group settings. Standard instructions from SPM, manual (1979) were given to subjects. Test was administered without any time restriction.

Statistics

t test analyses was conducted between performance of males and females on standard Progressive Matrices, for total sample, fro adolescents between age 12 to 14 years, and for adolescents with age between 15 and 18 years.

RESULTS

Table 1
Demographic characteristics of the sample

Variables		N	%
Gender	Male	230	57.2
	Female	172	42.8
Grade	6	12	3.0
	7	36	9.0
	8	58	14.4
	9	75	18.7
	10	136	33.8
	12	5	1.2
	12	80	19.9
Age	12 -14 years	201	50
	15-18 years	201	50

Table 2
Mean difference between male and female adolescents in performance on SPM

Gender	N	Mean	Std.Dev	t	df	Sig
Males	230	35.47	11.09	1.400	400	.162
Females	172	33.92	10.82			

Table 3
Mean difference between male and female adolescents ages 12 to 14 years in performance on SPM

Gender	N	Mean	Std.Dev	t	df	Sig
Males	116	31.89	11.026	-1.324	199	.187
Females	85	33.98	11.112			

Table 4
Mean difference between male and female adolescents ages 15 to 18 years in performance on SPM

Gender	N	Mean	Std.Dev	t	df	Sig
Males	114	39.11	9.956	3.604	199	.001
Females	87	33.86	10.596			

DISCUSSION

Results reflect that difference between over all sample of males and females, is trivial and not significant. However, for adolescents with age between 12 to 14 years the magnitude of difference is in favor of females, while the difference is not significant. Contrarily, the difference between male and female adolescents between ages 15 to 18 years appears as significant and in favor of male adolescents.

The findings are consistent to Lynn and Irwing's (2004) findings which contradict the traditional view of no difference in General intelligence between male and females. They concluded that male advantage over females appears after age of 15 year. The findings thus indicate the significance of age in the variation found in findings of past studies. Present findings thus endorse Lynn's developmental theory of sex differences in intelligence and stress the need for further researches, specifically longitudinal to assess the developmental differences of males and females in their intellectual abilities. The analysis of Ahmad et al. (2008) also reflect that in female sample there was greater variance like frequent assertion that male sample have more variability than females (Jensen, 1998; Lehrke, 1997). Thus keeping in view the inconsistency in results longitudinal study is strongly suggested.

It would be of much importance that these differences may not only be noted in terms of reasoning abilities but also in terms of different facets of intelligence. It is also suggested to observe these differences in cross sectional research in adult population.

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