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EFFICACY OF BEHAVIOR THERAPY WITH OBSESSIVE COMPULSIVE DISORDER: A SINGLE CASE STUDY

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ABSTRACT

Obsessive-Compulsive Disorder (OCD) is an anxiety disorder and is characterized by recurrent, unwanted thoughts (obsessions) and/or repetitive behaviors (compulsions). The present research used single case design to examine efficacy of Behavior therapy with Obsessive Compulsive Disorder. The patient was assessed using PADUA Inventory and Maudsley Obsessive-compulsive Inventory. Assessment was carried out three points in time i.e. pre, mid and post intervention. Treatment mainly consisted of in-vivo exposure, response prevention, modeling and coping statements. The actual therapist-patient time was about an hour, initially twice a week and then once a week. It was revealed that following the therapeutic sessions and home based treatment, the compulsive rituals decreased. The patient maintained her improvement at follow-up of one month. The findings highlight significance of Behavior therapy in treatment of patients with OCD in Pakistan.

INTRODUCTION

Obsessive-Compulsive Disorder, OCD, is an anxiety disorder and is characterized by recurrent, unwanted thoughts (obsessions) and/or repetitive behaviors (compulsions). Repetitive behaviors such as hand washing, counting, checking, or cleaning are often performed with the hope of preventing obsessive thoughts or making them go away. Performing these so-called "rituals," however, provide only temporary relief, and not performing them markedly increases anxiety (Alloy, Riskind & Manos, 2005). Obsessive Compulsive Disorder (OCD) is one of the most distressing and debilitating disorders both for the patient and family. Though OCD has become less

prevalent in developed countries, it is still commonly reported in conservative societies like Pakistan (Minhas, Farooq, Rahman, Hussain, & Mubbashar (2001)

A wide range of physical and psychological treatments have been used for obsessive-compulsive disorder. Behavioral Techniques, in vivo exposure and response prevention has been widely used as a treatment strategy for OCD patients and has been proved efficacious for OCD (Turner & Beidel, 1988). According to Rachman and Hodgson (1980) obsessional rituals usually decrease with a combination of response prevention and exposure and these techniques have become the most widely used and generally accepted behavior approach to compulsive rituals (Rachman & Hodgson, 1980; Foa & Kozak, 1996). A compilation of outcome studies revealed that, more than 300 OCD patients treated using exposure and response prevention and an average of 76 percent showed clinically significant relief from 3 months to 6 years after treatment (Foa & Kozak, 1996). In another study with OCD patients, it was found that incorporating relapse prevention components in the treatment program contributes significantly to the maintenance of improvement (Hiss, Foa & Kozak 1994). Marks (1981) found that obsessive-compulsive patients maintained their improvement after exposure in vivo for up to 5 years follow-up in the U.S.A., Britain, Greece and Australia.

Though OCD is commonly reported disorder in Pakistan, research on examining efficacy of therapeutic interventions with OCD is almost non-existent. Such research is crucial in order to estimate effectiveness of a particular therapeutic intervention so that future implication of a particular treatment regimen is determined. Moreover, such research would enable professionals in the field to provide cost effective treatment to the patient. The main objective of the present research was to examine efficacy of Behavior Techniques with OCD in Pakistan.

Case Report

The patient aged 40 years, was seen at a psychiatric out-patient clinic of a public mental health setting. She was exhibiting checking and cleaning compulsions, doubting and low mood for the last two years. Her early childhood was described as satisfactory and uneventful. Her parents died five years back with an interval of few months. The parental home atmosphere was congenial and religious.

She described herself a quiet and non-assertive person. She got married to her cousin who was an accounts clerk. She has two children aged 13 and 8 years. After getting married, she lived with her in-laws for five years and it was a very stressful period for her. Her in-laws were very particular about cleanliness and used to redo all the washing and cleaning of the house after she had completed her work. They were over critical and used to undermine all her efforts around the house and belittle her verbally among themselves that shattered her self-confidence and lowered her self-esteem. This

went to such an extent that she started to doubt herself after she had done cleaning and would start doing it again. Eventually she ended up doubting and repeating everything.

She developed a number of checking and cleaning compulsive behaviors as well as doubts. she used to sit in washroom for 50 -60 minutes even after she urinated because she feels uncertain whether she has urinated or not and keep sitting until urinated again; when she visited someone's place or came back from the market she took a bath and change her clothes; she rechecked the stove, locks, and iron switch many times and ask her husband to do so too; after using the telephone, touching money, touching the television knob or any other household object she washed her hands excessively; if anyone visited her house she used to wash all the seats and things due to the fear of contamination.

METHOD

Assessment Measures

The Diagnostic Statistical Manual (DSM- IV-TR, APA, 2000) and structured clinical interview was used to diagnose her as suffering from Obsessive Compulsive Disorder.

Formal assessment was carried out using PADUA Inventory (Sanavio, 1987) and Maudsley Obsessive Compulsive Inventory (Hodgson & Rachman, 1977). Padua Inventory (PI) consists of 60 statements which assess common obsessional and compulsive behaviors both in normal and clinical population. For each statement, the respondent has to rate the degree of disturbance on five point rating scale ranging from 0 (Not at all) to 4 (Very much). Maudsley Obsessive Compulsive Inventory (MOCI) is a 30-items self-report questionnaire in true/false format. It measures total obsessive-compulsive symptoms and includes subscales for checking, washing, slowness and doubting.

Baseline (using a baseline chart) of one week was used to record the time spent in toilet. Baseline time of 50 minutes was generated for one week on the basis of estimated per day for seven days.

Intervention Strategies

The patient was treated with *in-vivo exposure* and *response prevention* directed towards her *rituals*. *Modeling* was used to demonstrate coping with a distressing situation, like touching the bathroom door, and handling paper currency. This has been reported an effective technique in treating compulsive behavior (Rachman and Hodgson, 1980). *Relaxation and Deep Breathing Exercises* were also introduced and taught by the therapist in initial sessions.

Procedure

The first therapist-patient treatment session lasted for about an hour and half. The therapist explained rationale of intervention techniques to the patient. After having described nature of therapeutic intervention, seeking her consent and assurance of compliance with the treatment, the following treatment plan was employed.

(a) In the first session, the patient was taken to the hospital washroom and graded exposure and response prevention technique was used. She was taken to the toilet door and was made to stay there till such time that her anxiety subsided. The same procedure was repeated in every session scheduled for her and every time the prevention time was increased gradually.

(b) The patient was instructed to sit on the clinic's furniture and thereafter was prevented from changing clothes for 3 hours after having reached home. Patient's husband was instructed to ensure her compliance.

(c) The patient was made to touch paper money during the session and was prevented from washing her hands thereafter.

(d) She was given between sessions assignments to visit the market place and on return home was instructed not to change her clothes for at least 3 hrs to begin with.

(e) The client was instructed to invite guests over and then to refrain from washing anything she would think they have touched.

The above tasks were repeated or required to be repeated several times until the patient was able to perform them without much anxiety. Tasks (a) and (c) were carried out at the hospital during the sessions. Initially, the patient's anxiety and discomfort increased, but gradually reduced with several repetitions and lapse of time. Task (b) was carried out partly at the hospital and partly at home, whereas the tasks (d) and (e) were carried out at home i.e. between sessions. The actual time spent by the patient with the therapist was 55 minutes twice a week initially and once a week after 2 months for a total of 17 sessions.

RESULTS

Scores of the patient on PADUA and MOCI subscales were computed and comparison of pre, mid and post intervention scores was carried out. The results are given in table 1 and Figures 1 & 2.

Table 1
Table showing change in obsessive thoughts and compulsive acts at pre, mid and post treatment phases.

Assessment Tool	Pre-Treatment	Mid-Treatment	Post-Treatment
PADUA	110	52	39
MOCI			
Checking	5	1	0
Washing	5	3	1
Slowness / Repetition	3	3	2
Doubting Conscious	6	6	3
MOCI : Total	19	13	6

The results indicate that at post treatment evaluation, the patient showed a significant decrease in obsessive thinking and compulsive behaviors. On the PADUA Inventory, her score fell from a pre-assessment level of 110 to a post- assessment score of 39 which shows a significant improvement in her obsessive thoughts and compulsive behaviors. While on MOCI, her overall score fell from a pre-assessment score of 19 to a post-assessment score of 6 on all the scales of Checking, Washing, Slowness / Repetition and Doubting.

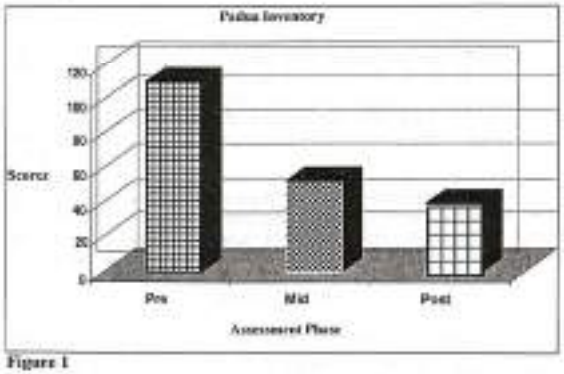
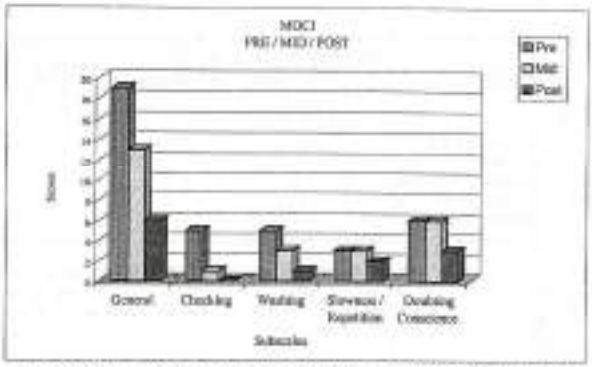


Figure 1



Her checking and washing compulsions decreased markedly from pre to post intervention levels. At the start of therapy she used to spend 45-50 minutes in the washroom every time. However, by the end of three months this decreased to fifteen minutes only.

In addition, her daily functioning improved. Earlier, she used to spend the whole day in bed and did not do any house hold chores. Even tasks like making food for her children had become a burden for her and not until her children started to cry would she used to get up and make some food for them. However, after a couple of weeks in therapy the client showed remarkable improvement in the amount of work done in the house.

As her compulsions decreased she began to meet people again and visit family members that had almost finished during the past one year. She began to take more interest in her appearance and there was a significant change in her pre and post appearance as noted during therapy sessions as well as reported by her husband.

DISCUSSION

The findings suggest that different techniques of behavior therapy such as in-vivo exposure and response prevention proved very effective in treating obsessive compulsive disorder. The patients showed marked decrease in obsessive thought and compulsive rituals. In addition, the patient's overall general functioning level improved. The findings are in consensus with those of earlier studies which showed that outpatient

exposure treatment success rates with OCD's have ranged from 70 to 80%. (Hoogduin & Hoogduin, 1984).

Though the findings do substantiate and are in line with the earlier research in efficacy of behavior therapy with OCD, caution is needed in interpreting the findings (Racheran & Hodgson, 1980). The account of the client's compulsive behavior and decrease in it with intervention was mainly reported by the client herself that could have resulted in a bias introduced in recording. Although an objective account of the improvement was taken from her husband as well throughout the therapeutic process, it is further recommended that the monitoring should have been done on in-patient basis. In-vivo exposure could only be carried out by the therapist for one hour at a stretch and it was based more on between session work and account of the client. It would be preferable to admit OCD clients as in-patient so that longer hours of therapeutic work would be carried out under supervision and objective monitoring could be done. Moreover, 6-9 month follow-up is recommended especially for OCD clients so that treatment gains can be monitored and maintained (O'Sullivan & Marks, 1991).

To summarize, this study provided further support to the efficacy of Behavior Therapy for the treatment of patients with OCD in Pakistan.

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A STUDY OF THE RELATIONSHIP BETWEEN PARENTING STYLES, ACADEMIC MOTIVATION AND ACADEMIC PERFORMANCE

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ABSTRACT

The purpose of the present study is to investigate the relationship between parenting styles, academic motivation and academic performance in adolescents. After detailed literature review following hypotheses were formulated. (1) Authoritative Parenting style would be positively related to Intrinsic Motivation. (2) Authoritarian Parenting style would be positively related to Extrinsic Motivation. (3) Permissive Parenting style would be positively related to Amotivation. (4) Authoritative Parenting style and Intrinsic Motivation would predict high Academic Performance. (5) Authoritarian Parenting style and Extrinsic Motivation would predict low Academic Performance. (6) Permissive Parenting style and Amotivation would predict low Academic Performance. Sample of the present research consisted of 55 adolescents. The age of participants ranged from 15 to 17 years and their educational level was 9th &10th grade. Parental Authority Questionnaire (PAQ; Buri, 1991) was administered in order to measure the adolescents' perception of parental style and Academic Motivation Scale (Vallerand et al., 1993) was administered to measure intrinsic motivation, extrinsic motivation, and amotivation. Academic Performance was measured through the obtained grades in school examinations. Pearson Product Moment Correlation and Regression Analysis were applied for statistical analysis of data. Results showed a significant positive relationship between authoritative parenting style and intrinsic motivation (r = .236, df = 52, P<0.05); authoritarian parenting style and extrinsic motivation (r = .365, df =53, P < 0.01). Further positive correlation was also found between permissive parenting style and amotivation (r = .221, df =53, P > 0.05) however it was insignificant. The results of the study also reveals that the authoritative parenting style and intrinsic motivation were significant predictors of high academic performance (F = 5.715, df = 2, 50, P<0.01) and authoritarian parenting style, extrinsic motivation; permissive parenting styles and amotivation were all insignificant predictors of low academic performance respectively (F = 1.066, df = 2, 50, P>0.05; F = 2.018, df = 2, 50, P>0.05).

INTRODUCTION

It is generally accepted that the quality of family interactions has important associations with children's and adolescents' academic motivation and achievement, and with young adults' eventual educational and occupational attainments. Kellaghan and his colleagues (1993) claim that the family environment is the most powerful influence in determining students' school achievement, academic motivation, and the number of years of schooling they will receive. Similarly, Coleman (1991) states that parents' involvement in learning activities has substantial emotional and intellectual benefits for children. He observes, however, that supportive and strong families are significant for school success. Steinberg (1996) proposes that to understand family influences, it is important to disentangle three different aspects of parenting. These include: (1) parenting style, which provides the emotional context in which parent-child interactions occur; (2) the goals that parents establish for their children; and (3) the practices adopted by parents to help children attain those goals.

Parenting is a complex activity that includes many specific behaviors that work individually and together to influence child outcomes. Parental style is a concept introduced by Baumrind (1971). The construct of ***parenting style*** is used to capture normal variations in parents' attempts to control and socialize their children (Baumrind, 1991). He described three distinct prototypes of parental authority permissiveness, authoritarianism, and authoritativeness. It is important to remember that what is perceived by one individual as "too much" may be "just right" for another. This concept may also be true when describing parental styles.

A permissive parent may fall into the "uninterested parent" category described by De Knop (1992). These permissive parents are relatively non-controlling and seldom use any form of punishment to control their children. Permissive parents tend to make fewer demands on their children than other parents, allowing them to regulate their own activities as much as possible (Baumrind, 1971).

Authoritarian parents tend to be very strict and rigid by setting rules for acceptable behavior. Authoritarians value unquestioning obedience in their exercise of authority over their children, tend to be detached and less warm than other parents, discourage verbal give-and-take between child and parent, and favor punitive measures to control their children's behaviors (Baumrind, 1971).

Authoritative parenting style is a combination between the two extremes. They are characterized as providing clear and firm directions for their children, but disciplinary clarity is moderated by warmth, reason, flexibility, and verbal give-and-take (Baumrind, 1971).

Parenting styles (Baumrind, 1967) have consistently been shown to relate to various child behaviors and academic achievement. Several research programs have

shown that variables such as parental belief systems, expectations, styles, and behavior patterns are related to academic or cognitive outcomes in children (Dornbusch, Ritter, Leiderman, Roberts & Fraleigh, 1987; Grolnick & Ryan, 1989; Hess, Shipman, Brophy & Bear, 1969; Parsons, Adler & Kaczala, 1982; Sigel, 1982).

Research based on parent interviews, child reports, and parent observations consistently finds: Children and adolescents whose parents are *uninvolved* perform most poorly in all domains. In general, parental responsiveness predicts social competence and psychosocial functioning, while parental demandingness is associated with instrumental competence and behavioral control (i.e., academic performance and deviance). These findings indicate that children and adolescents from *authoritarian* families (high in demandingness, but low in responsiveness) tend to perform moderately well in school and be uninvolved in problem behavior, but they have poorer social skills, lower self-esteem, and higher levels of depression. Children and adolescents from *indulgent* homes (high in responsiveness, low in demandingness) are more likely to be involved in problem behavior and perform less well in school, but they have higher self-esteem, better social skills, and lower levels of depression. (Weiss & Schwarz, 1996).

Authoritative parenting style seems to be the best fit to facilitate a learning enjoyment atmosphere perceived by a child. It is a healthy combination of both the permissive and authoritarian parenting styles. Authoritative parents incorporate the five dimensions of parental behavior that appear to be important in context of achievement: acceptance, modeling, performance expectations, rewards/punishment, and directiveness (Woolger & Power, 1993). In general, an authoritative parenting style emphasizing both responsiveness and demandingness appears superior in fostering high academic achievement (Reitman, Rhode, Hupp & Altobello, 2002).

Another research investigating how children and their parents rate their parenting styles, and how this rating is associated with academic achievement, alcohol, and tobacco use found that high grades were associated with child and parent perception of higher authoritativeness, lower permissiveness, and lower authoritarianism (Cohen & Rice, 1997). Attaway et al. (2004) found that parental beliefs in high degrees of control predicted lower GPA in a sample of African-American adolescents. Parental beliefs in responsiveness did not contribute to adolescents' GPA. Strage et al. (1999) examined the role of parenting style or practices in the lives of college students. Results showed that parenting style continued to be important in college students as with children and adolescents. The more autonomy, demand, and support parents provided, the students were more confident and persistent. Further authoritarian and permissive parenting styles have been associated with (a) poor academic grades, (b) college adjustment, and (c) self-esteem of adolescents (Lamborn, Mounts, Steinberg & Dornbusch, 1991). Eskilson, Wiley, Muehlbauer and Dodder (1986) found that most school-related conflict between parents and high school youth was related to demanding expectations (authoritarian) or not high enough expectations (permissive).

Motivation is one of the most important psychological concepts in education today, and has in fact shown to be related to various learning and performance outcomes. When considering academic achievement however, it is likely that academic ability is only one determinant of success. Another significant factor is motivation (in particular, academic motivation). However much less attention has been given to measuring this construct. There are many conceptual perspectives which have been suggested in order to understand academic motivation. One such perspective states that behavior can be extrinsically motivated, intrinsically motivated, or amotivated. This approach to motivation appears rather pertinent to the field of education, particularly as motivational styles can lead to important and predictable consequences (Lavery, 1999).

Intrinsic motivation can be defined as "the fact of doing an activity for itself, and the pleasure and satisfaction derived from participation". It has been suggested that there are in fact three differing types of intrinsic motivation, which can be identified as intrinsic motivation to *know*, to accomplish things, and to experience stimulation. The first type *intrinsic motivation to know* occurs when someone performs an activity for the satisfaction and pleasure that one experiences while learning or trying to understand something new. The second type *intrinsic motivation toward accomplishments* occurs when someone engages in an activity for the pleasure and satisfaction experienced when one attempts to accomplish and create something. The final type *intrinsic motivation to experience stimulation* occurs when someone engages in an activity because they wish to experience stimulating sensations (such as sensory pleasure, aesthetic experiences, as well as fun and excitement) which are derived from one's engagement in the activity (Lavery, 1999).

Extrinsic motivation refers to a range of behaviors which are not engaged for their own sake but as a means to an end. Originally, it was thought that extrinsic motivation referred to behavior that could only be prompted by external contingencies such as rewards. However, three differing types of extrinsic motivation have now been proposed: external regulation, introjections and identification. *External regulation* occurs when behavior is regulated through external means (usually through rewards or constraints). When considering *introjection*, the source of control is now within the individual, and behaviors are reinforced through internal pressures such as anxiety or guilt. Finally, *identification* is in operation "when the individual comes to value and judge the behavior as important and, therefore, performs it out of choice." In this case, while the activity is still performed for extrinsic reasons (for example, to achieve personal goals) it is actually internally regulated and self-determined (Lavery, 1999).

It has been suggested that in order to fully understand human behavior, a third type of motivation should be considered. This type of motivation (termed "***amotivation***") is very similar to the concept of learned helplessness and can be defined as "Individuals are amotivated when they do not perceive contingencies between outcomes and their own actions. They are neither intrinsically nor extrinsically motivated". Individuals who are

amotivated experience feelings of incompetence and lack of control. Amotivated behaviors can be seen as the least self-determined, as there is no expectation of reward or sense of purpose (Lavery, 1999).

This multi-faceted approach to motivation can be seen as being particularly important, as the different types of motivation have been associated with important psychological consequences, such as learning and performance. Researches suggest that as one progresses from amotivation to intrinsic motivation, the differing types of motivation are associated with increasingly positive consequences. Vallerand et al. (1989) examined the motivation of students using the French-Canadian version of the AMS. These researchers found that both intrinsic motivation and identification were positively associated with educational outcomes. External regulation and introjection were either not related or slightly negatively related to outcomes. Amotivation was (not surprisingly) negatively related to educational outcomes.

Kwan and Leung (1998) examined a mediational model that stipulates motivational orientations as mediators between parenting styles and self-perceived academic competence. Three separate pathways were hypothesized: authoritarian parenting leading to extrinsic motivation, authoritative parenting to intrinsic motivation, and neglectful parenting to amotivation. These different motivational orientations were in turn related to self-perceived academic competence. Findings supported their mediational model. Vansteenkiste et al. (2004) noted that engaging in learning behaviors with an intrinsic goal resulted in more learning and better performance than engaging in behaviors with an extrinsic goal.

In a study by Gottfried et al. (1994) two pathways to academic competence were tested. A parenting style that aimed at encouragement of children's task endogeny was found to lead to intrinsic motivation, which in turn contributed to academic success. A second parenting style that was geared toward the provision of task-extrinsic consequences was shown to lead to extrinsic motivation, which in turn contributed to academic underperformance.

In addition, high-achieving students, more often than underachieving students, described their parents as understanding, approving, trusting, affectionate, encouraging achievement, and not overly strict in disciplining (Masselam, Marcus, & Stanford, 1990). Conversely, underachievers described their parents as very strict and demanding, lax, or punitive in their disciplinary techniques (Dornbusch, Ritter, Mont-Reynaud & Chen, 1990; Wood, Chapin, & Hannah, 1988).

The objective of the present study was to analyze how different styles which parents adopt to raise their children effects the children's academic motivation and further how both these variables of parenting styles and academic motivation together influence children's academic performance.

Keeping in view the literature review following hypotheses were framed:

1. Authoritative Parenting would be positively related to Intrinsic Motivation.
2. Authoritarian Parenting would be positively related to Extrinsic Motivation.
3. Permissive Parenting would be positively related to Amotivation.
4. Authoritative Parenting and Intrinsic Motivation would predict high Academic Performance.
5. Authoritarian Parenting and Extrinsic Motivation would predict low Academic Performance.
6. Permissive Parenting and Amotivation would predict low Academic Performance.

METHOD

Sample

Sample of the present research consisted of 53 adolescents, out of whom 42 were male adolescents and 11 were female adolescents. The sample of research was taken from different educational institutions (English Medium) of Karachi. The ages of participants ranged from 15 to17 years and they were currently studying in 9th and 10th grade.

Measures

Demographic Data Form: Demographic information was obtained through items which focused on subjects' sex, age and class/grade.

Parental Authority Questionnaire (PAQ): The Parental Authority Questionnaire (PAQ; Buri, 1991) was used to find out information pertaining to the parental style to which the individual was subjected. The PAQ consisted of 30 statements about each parent. Ten statements were representative of authoritative parenting, 10 were representative of authoritarian parenting, and 10 were representative of permissive parenting. A 5-point likert type scale with 1 = strongly disagree and 5 = strongly agree was used to record responses.

Academic Motivation Scale: The Academic Motivation Scale-School Version (AMS; Vallerand et al., 1992) was used to measure students' motivation towards knowledge, accomplishment, and stimulation. The scale assesses intrinsic motivation, extrinsic motivation, and amotivation and consists of 28 items, each item was scored on a scale from 1 (not correspond) to 7 (corresponds exactly).

Academic Performance: Academic Performance was measured through the obtained grades in last three years examinations. Equivalent percentages were calculated for the grades. These percentages are frequently used in Pakistani schools for assigning

academic grades. Average Percentages of past three years were calculated for each student to have a score for their academic performance.

Procedure

Sample of the research was recruited from different educational institutions (English Medium; Private and Public Sector both) of Karachi. The nature of the research was explained to the school principals. Only those adolescents were included who volunteered to participate. Participants were briefed about the purpose of the present study and were assured that the data will purely be used for research purpose and their identities will not be revealed to any one. Once the rapport was established, demographic data form was filled in which focused on the subject's age, gender, and class/grade. Parental Authority Questionnaire (PAQ; Buri, 1991) was administered in order to measure the adolescents' perception of parental style and after 10 minutes break the Academic Motivation Scale (AMS, Vallerand et al., 1992) was further administered in order to measure intrinsic motivation, extrinsic motivation, and amotivation. To measure Academic Performance they were requested to write down their Academic results in form of percentages and grades of final examination of past three years. For the purpose of cross checking researcher also obtained academic results from school authorities.

Parental Authority Questionnaire and Academic Motivation Scale were scored according to the instructions given in the respective manuals. Average Percentages of past three years were calculated for each student to have a score for their academic performance.

Statistical Analysis

In order to interpret the data in statistical terminology the Pearson Product Moment Correlation and Regression Analysis were applied making use of Statistical Package for Social Sciences (SPSS, V13.0).

Operational definitions of various terms

Parenting Styles: The construct of parenting style is used to capture normal variations in parents' attempts to control and socialize their children (Baumrind, 1991).There are three different styles of parental authority:

> ***Authoritative Parenting:*** Authoritative parents provide clear and firm directions for their children, but disciplinary clarity is moderated by warmth, reason, flexibility, and verbal give-and-take (Baumrind, 1971).
>
> ***Authoritarian Parenting:*** Authoritarian parents tend to be highly directive with their children and value unquestioning obedience in their exercise of authority over their children (Baumrind, 1971).

Permissive Parenting: A permissive parent tends to make fewer demands on their children that do other parents, allowing them to regulate their own activities as much as possible (Baumrind, 1971).

Motivation

Intrinsic Motivation: The fact of doing an activity for itself, and the pleasure and satisfaction derived from participation (Lavery, 1999).

Extrinsic Motivation: It refers to a range of behaviors, which are not engaged for their own sake but as a mean to an end (Lavery, 1999).

Amotivation: Individuals are amotivated when they do not perceive contingencies between outcomes and their own actions. They are neither intrinsically nor extrinsically motivated (Lavery, 1999).

Academic Performance: Average of Percentages of last three year's final examinations in school.

RESULTS

Table I
Pearson Correlation between Authoritative Parenting Style and Intrinsic Motivation
N = 53

Variables	Intrinsic Motivation
Authoritative Parenting Style Sig. (1-tailed)	.230 .044

Table II
Pearson Correlation between Authoritarian Parenting Style and Extrinsic Motivation

Variables	Extrinsic Motivation
Authoritarian Parenting Style Sig. (1-tailed)	.365 .004

Table III
Correlation between Permissive Parenting Style and Amotivation
N = 53

Variables	Amotivation
Permissive Parenting Style	.221
Sig. (1-tailed)	.056

Table IV (a)
Model Summary of Regression Analysis of Authoritative Parenting Style and Intrinsic Motivation as predictors of Academic Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1381.927	2	690.964	5.713	.006
Residual	6047.362	50	120.947		
Total	7429.289	52			

a. Predictors: (Constant), Intrinsic Motivation and Authoritative Parenting style
b. Dependent Variable: Academic Performance

Table IV (b)
Coefficients

Model	B	t	Sig.
(Constant)	62.573	5.259	.000
Authoritative PS	.648	3.122	.003
Intrinsic Motivation	-.300	-1.996	.051

Dependent Variable: Academic Performance

Table V (a)
Model Summary of Regression Analysis of Authoritarian Parenting Style and Extrinsic Motivation as predictors of Academic Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	303.888	2	151.944	1.066	.352
Residual	7125.401	50	142.508		
Total	7429.289	52			

a. Predictors: (Constant), Extrinsic Motivation and Authoritarian Parenting Style
b. Dependent Variable: Academic Performance

Table V (b)
Coefficients

Model	B	t	Sig.
(Constant)	90.149	8.404	.000
Authoritarian PS	-.242	-.765	.448
Extrinic Motivation	-.108	-.880	.383

Dependent Variable: Academic Performance

Table VI (a)
Modal Summary of Regression Analysis of Permissive Parenting Style and Amotivation as predictors of Academic Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	554.845	2	277.423	2.018	.144
Residual	6874.444	50	137.489		
Total	7429.289	52			

a. Predictor: (Constant), Amotivation and Permissive Parenting Style
b. Dependent Variable: Academic Performance

Table VI (b)
Coefficients

Model	B	t	Sig.
(Constant)	90.255	11.015	.000
Permissive PS	-.379	-1.389	.171
Amotivation	-.378	-1.110	.272

Dependent Variable: Academic Performance

DISCUSSION

Parents may differ in how they try to control or socialize their children and the extent to which they do so, however it is assumed that the primary role of all parents is to motivate, influence, teach, and control their children. Baumrind's (1968) parenting style typology has dominated the field as a conceptualization and method of describing parental characteristics (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Hess & McDevitt, 1984; Newcomb & Loeb, 1999; Steinberg, Lamborn Dornbusch, & Darling, 1992). This typology consists of three parenting styles: authoritarian, authoritative, and permissive. Normal parenting revolves around issues of control. In what manner that authority should be exercised, how often it should be exercised, in what context it should be exercised, and whether it should even be exercised.

It is evident from the Table I that significant positive correlation was found between authoritative parenting style and intrinsic motivation ($r = .236$, $df = 52$, $P<0.05$).

Such a style creates a context in which parents encourage their children's independence and individuality, provide opportunities for children to be involved in family decision making, expect high standards for their children, and have warm relationships with their children. As a result of this style where independence on the part of children is encouraged, they learn to be intrinsically motivated and progress academically. A positive relationship is also found between authoritarian parenting style and extrinsic motivation($r = .365$, df =52, $P < 0.01$). Authoritarians may be described as "overcritical parents" because they are very strict and rigid in setting rules and demand that the rules be followed. Overcritical parents are never satisfied with the achievements of their child. Pressure to perform well has been proven to be a source of stress and anxiety for an individual and hence children raised by parents who follow this style become extrinsically motivated. Butcher, Linder, Kozemiad and Johns (2002) concluded that the authoritarian parenting style may induce a worry-conducive motivational climate. This type of motivational climate initiated by a parent makes a child worried about failing because doing so will appear negative in their eyes. This prototype makes a child worried about making mistakes, about performing skills they are not good at, and makes a child feel badly when they cannot do as well as others. Further positive correlation was also found between permissive parenting style and amotivation however it is mildly insignificant (Table III). Lamborn et al. (1991) found that adolescents reared in authoritarian or permissive home environments appear to be at greater risk for negative academic outcomes. Because neglectful parents neither control, demand, nor encourage, and their children feel little impetus to perform and become motivated.

Table IV(a), V(a), and VI(a) presents the summary of regression analyses of different parenting styles and academic performance. The findings shows authoritative parenting style and intrinsic motivation to be a significant predictor of high academic performance ($F = 5.715$, df = 2, 50, $P<0.01$). The results of the study also reveals that authoritarian parenting style, extrinsic motivation; permissive parenting styles and amotivation were all insignificant predictors of academic performance. ($F = 1.066$, df = 2, 50, $P>0.05$; $F = 2.018$, df = 2, 50, $P>0.05$). These findings partially confirm the previous researches (e.g., Darling & Steinberg 1993; Gottfried et al., 1994; Deci & Ryan, 1992; Flink, Boggiano, Main, Barrett & Katz, 1992; Harter, 1992; Vallerand et al., 1993; Dornbusch, Ritter, Leiderman, Roberts & Fraleigh, 1987) that show that parenting style defined as authoritative is related to positive academic motivation and successful academic achievement and authoritarian parenting style that was geared toward the provision of task extrinsic consequences was shown to lead to extrinsic motivation, which in turn contributed to academic underperformance. However, these findings cannot be generalized because the sample of participants was too small to be generalized to the whole population of the city. Secondly our sample only consisted of adolescents and human behavior changes too much from one developmental life span to other to permit exact prediction. Further empirical relationships obtained in one culture may be a product of its cultural milieu and may not generalize to other cultures (e.g., Van de Vijver & Leung, 1997).

It is concluded in the light of literature review and results of this study that parenting styles provide a robust indicator of parenting functioning that predicts child well-being across a wide spectrum of environments and across diverse communities of children. Parents continue to play a vital role in influencing a student's academic performance. Findings also showed that students who were more intrinsically motivated and came from a family displaying more involvement, higher levels of nurturance, and encouragement of more autonomy were more academically successful. Therefore to help students increase academic success throughout school and their academic career there is a need to promote parenting programs that encourage home environments of warmth and autonomy. In this regard clinical psychologists and school counselors can play a vital role.

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EFFECTS OF WORKAHOLISM ON FAMILY RELATIONS

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ABSTRACT

The purpose of the present study was to investigate the relationship between workaholism and poor family relations. The sample consisted of three hundred and sixty one (N=361) male and female adults, ranging in age from 25-39 years with the educational background of Intermediate and above, from Peshawar (NWFP, Pakistan). 175 were workaholics whereas 186 were non-workaholics. It was hypothesized that workaholics will have poor family relations due to extended working hours as compared to non-workaholics. t-test and correlation were applied to the data. The findings of the research indicated that workaholism and poor family relation are positively correlated as well as there is a significant difference between mean scores of workaholics and non-workaholic on the scales of workaholism and family relations. It was concluded that workaholism plays an important role in improving the standard of workaholics' personal, familial and professional life materially. This research will pave the ways for recognizing workaholics in Pakistan and its impact on personal, familial, professional and social life.

INTRODUCTION

Work has been one of the most basic and important activities for people since the descent of man on earth. The idea that work plays a central and fundamental role in the life of individuals has been supported empirically in most industrialized countries (Brief & Nord, 1990; England & Misumi, 1986; Mannheim, 1993). Sigmund Freud defined mental health as the ability to love and work (Erikson, 1963). Studies by Dubin et al. (1975) and Dubin et al. (1976) were helpful in developing this concept, which refers to the degree of general importance that working has in one's life at any given time (MOW, International Research Team, 1987). In general, work has been found to be of relatively high importance as compared with other areas of life (Ruiz-Quintanilla & Wilpert, 1991). It is usually considered to be of more importance than leisure,

community, and religion and was found in several studies to be ranked second only to family (Harpaz, 1999; MOW, International Research Team, 1987).

Although working long hours fits the popular notion of a workaholic, several studies have found that number of hours worked does not relate definitively to the measures of workaholism that include inner compulsion or feeling driven to work (Burke, 1999; McMillan, Brady, O'Driscoll, & Marsh, 2002; Taris, Schaufeli, & Verhoeven, 2005). Overall, measuring hours worked is not the essence of the construct definition debate. The contrast is simply that it is applied differently by researchers adopting each perspective, one group starting with long hours and looking for variation in consequences; the other starting with an overall relationship to work, within which long hours may be a symptom

Workaholism interfere with an individual's physical health, personal happiness, interpersonal relations and "smooth social functioning" (Oates, 1971). Porter (1996) suggests that workaholic's motive is not to do better and improve his or her output but to just keep working. This may be due to inner sense of inadequacy or poor self-worth. Workaholics tend to maintain a high level of work involvement even when the job could be successfully completed with less involvement (Porter, 1996). An important aspect of workaholics is the neglect of oneself, family, loved ones and friends (Pietropinto, 1986; Porter, 1996; Seybold & Salomone, 1994)

Some recent research (Baltes & Heydens-Gahir, 2003) has expanded the exploration of hours worked and job involvement to specific comparisons with both work-in-family (WIF) conflict and family-in-work (FIW) conflict. Overall, even within the premise that working long hours could have positive outcomes, it should not be assumed that the two referenced positives individual satisfaction and organizational benefits go hand in hand. In addition, it is important to remember that family relations might suffer from this high investment in work, even in the presence of either or both the organizational and the individual benefits.

Friedman and Lobel (2003) recently wrote about "Happy Workaholics" being those whose long hours are compatible with their personal value systems. The key conclusions of their study is the premise that creating a workplace in which employees believe they can give the desired amount of attention to their personal lives does not require having a boss who models "balance." Rather, the boss should model "authenticity" each individual's work being guided by personal values. If the individual's priority is work, long hours are good. The article acknowledged that these managers are making "sacrifices in their personal lives to achieve business results" (Friedman & Lobel, 2003). The sacrifices are not defined, but there is reference to working 15-hour days. The researchers' interviews did not include family members or others outside the workplace.

On the other hand, if workaholics are pressured to accept family responsibilities or are expected to spend time in non-work activities, work-family conflict may result, which has been found to contribute to lower family satisfaction, lower job satisfaction, and lower leisure satisfaction (Rice, Frone, & McFarlin, 1992 in Scott et al., 1997).

The workaholics' addictive behavior is negative, because of the difficulties experienced by spouses and children (Fassel, 1990; Killinger, 1991; Robinson, 1989). The most quantifiable symptom of this difficulty is likely to be long hours in the workplace and spending little quality time with family. However, the long hours are a manifestation of the problem, not the problem itself.

In terms of working to excess, people may believe it is necessary to work more at various times, like getting one's career established. According to Porter (2001), this is not necessarily a problem. The defining decision point is when that need has passed. Does the individual remember to scale back to what originally had seemed more reasonable, or is she/he unable to back away from the new accustomed level of activation? Orford (1985) warns that it is easy to underestimate the strength of a habit that begins as small, gradual steps.

Workaholics think about work all the time. Even with their family, they emphasize task performance. They set high standards and are intolerant of weakness. Rather than collaborating, they like to run the show themselves (Joan, 1993).

The researcher aimed at probing into the present and early family life of the workaholics. As there is little work available on etiology of workaholism. Several studies support the idea that family is the universal social institution. Of all the institutions, it is most multifunctional. In many societies including Pakistani society, family is still the principal agency for social control, and for educational, religious, prospective, recreative and other institutional functions. We all agree with the fact that family serves as a base of the personality of every individual, so the role of family could not be denied in order to reach to a proper conclusion on the causes and effects of workaholism.

Hypotheses

1. Workaholics will have poor family relations due to extended working hours as compared to non workaholics.

METHOD

Sample

The sample was selected from different organizations in Peshawar. The sample consisted of 361 adult male and female workaholics and non-workaholics. The sample

was heterogeneous in nature consisting of workaholics and non-workaholics from different professions like teachers, doctors, lawyers, policemen and administrators in different organizations who work more hours than the required time in their respective professions. Full time working employees were selected who reported ≥50 hours per week, mean time of the workaholics estimated was 61.29 and the SD calculated was 5.164 and also Workaholism Test was used for identification of workaholics and non-workaholics. The non-workaholics were also full time employees but were not bound for working hours per week. Mean working hours per week for non-workaholics was 39.75 and SD calculated was 5.531. The Participants were volunteers who have chosen to give time to the study without any administrative coercion. Demographic information for the current sample is presented in Table-5-10. There were 175 (48.5%) Workaholics (77 males and 98 females) and 186 (51.5%) were non-workaholics (101 males and 85 females) within the age range of 25-59 years. The educational criterion of the subjects was at least Inter or above. Convenient sampling technique was used.

Measures

Personal information schedule: Personal information schedule was aimed at collection of demographic information and a detailed early life history of the subjects. It included basic demographic information like age, gender, marital status, education, occupation, monthly income.

Workaholism Test: Workaholism test was developed by Flore (1998) in order to measure workaholism. The scale contained 24 items on 5-Point Likert scale ranging from 1 (Not at all true) to 5 (Mostly true). The scores on the scale ranged between a minimum of 24 and maximum of 120, the cut-off point was 48. Score may be divided into non-workaholics (25-48 scores), low (49-72 scores), and moderate (73-96 scores) highly workaholics (97-120 scores). Higher the score on the scale higher was the workaholism.

Index of Family Relations (IFR): Index of Family Relations (IFR) was developed by Hudson (1982). The IFR was designed to measure the degree, severity or magnitude of a problem that family members perceive in their relationships with one another. The scale comprised of 25 items on a 5-Point Likert scale ranging from 1 (rarely or none of the time) to 5 (all of the time) showing the extent or degree of problems that family members perceive in their relationships with one another. The scores on scale range between a minimum of 0 (zero) and a maximum of 100. The cut-off point for IFR was 30. The total score of IFR was computed by subtracting 25. In order to avoid response set bias, some items were keyed in the opposite direction and were reverse-scored.

Procedure

The researcher visited each institution and individually contacted the subjects. After a brief description about the nature of research work, they were assured that the

results will be kept confidential and will not be reported else where without their prior consent. A proper schedule was prepared for testing with approval of each participant. Each participant was contacted according to the time and venue scheduled. Before administering the test, an effort was made to develop rapport with subjects.

Minimal risk was associated with participation in this study; individuals may have experienced some anxiety when thinking about their personalities, health, work and family related feelings and behaviors. However, the researcher was available throughout the duration of the administration in order to address these concerns.

Each subject was given both the tests and a demographic information sheet with family history in the same sequence, that is test for Personal Information Schedule, Workaholism Test, and Index of Family Relation. Before administering each test, instructions were read out to the subject and if needed further explanations were also given to ascertain the comprehension of the test by the subjects.

Statistical Analysis

t-test and Pearson Moment Correlation Coefficient were computed to interpret the data in statistical terminology.

RESULT

Table 1
Gender distribution of workaholics and non-workaholics (N=361)

Group	Male	Female	Total
Workaholics	77	98	175
	(44.0)	(56.0)	(100)
Non-Workaholics	101	85	186
	(54.3)	(45.7)	(100)
Total	178	183	361
	(49.3)	(50.7)	(100)

$\chi 2 = 3.828$, df = 2, $p < .05$

Table-1 shows cross tab between male and female workaholics and non-workaholics. The result shows that the sample consisted of 56.0 % workaholic females while 44.0 % workaholic males while 54.3 % are male non-workaholics and 45.7 % female non-workaholics. This frequency difference is statistically significant at p<.05.

Table II
Age distribution of workaholics and non-workaholics (N=361)

Group	25-27 years	28-35	36 onwards	Total
Workaholics	38 (21.7)	97 (55.4)	40 (22.9)	175 (100)
Non-Workaholics	86 (46.2)	43 (23.1)	57 (30.6)	186 (100)
Total	124 (34.3)	140 (38.8)	97 (26.9)	361 (100)

$\chi 2 = 42.092$, df = 2, p< .0001

The table-2 shows the cross tab between different age groups of workaholics and non-workaholics. The result shows majority of workaholics are between ages twenty eight and thirty-five years while 21.7 % are between twenty-five and twenty-seven years. Similarly 46.2 % non-workaholics fall between twenty-five and twenty-seven years. This frequency table is statistically significant at p<.0001.

Table III
Education distribution of workaholics and non-workaholics (N=361)

Group	Graduates	Post Graduates	MPhil/PhD	Total
Workaholics	17 (9.7)	121 (69.1)	37 (21.1)	175 (100)
Non-Workaholics	70 (37.6)	92 (49.5)	24 (12.9)	186 (100)
Total	87 (24.1)	213 (59)	61 (16.9)	361 (100)

$\chi 2 = 38.707$, df=2, p< .0001

Above table-3 shows the cross tab between the education of workaholics and non-workaholics. The result shows that the majority of post graduates and highly educated belong to workaholic group as compared to non-workaholic group, as 69.1 % post graduates and 21.1 % M.Phil/PhDs belong to workaholic group whereas 49.5 % of non-workaholics are post graduate degree holders. This frequency table is statistically significant at p<.0001.

Table IV
Mean difference and t-value of workaholics and non-workaholics on Workaholism Test (N=361)

Group	N	Mean	SD	t-value	p-value
Workaholics	175	72.18	12.596		
				-29.587	.0001
Non-workaholics	186	43.60	3.748		

$df = 359$

Note: The higher the score on workaholics test shows, the higher the level of workaholism, lower score on the test shows lower level of workaholism.

Table-4 shows the mean differences between workaholics and non-workaholics on the scores of workaholism test. The table shows that workaholics scored higher than non-workaholics. This mean difference 28.58 is highly statistically significant ($p<.01$).

Table V

Mean difference and t-value of workaholics and non-workaholics on Index of Family Relation (N=361)

Group	N	Mean	SD	t-value	p-value
Workaholics	175	21.58	16.878		
				-8.520	.0001
Non-workaholics	186	9.78	9.78		

$df = 359$

Note: The lower the score on IFR, the more the participant perceive him/herself to be accepted by his/her family. Similarly the higher the total scores the higher the degree or severity of magnitude of problems the participant perceives in their relationships with family members.

Table-5 shows the mean differences between workaholics and non-workaholics on the score of Index of Family Relation. The figure shows that workaholics show higher mean as compared to non-workaholics. This mean difference of 11.8 is highly statistically significant at ($p<.01$).

Table VI
Mean, SD and Correlation of Workaholism Test and Index of Family Relation

Variables	Mean	SD	r	p
WT	72.18	12.596	.313	.0001
IFR	21.58	16.878		

Note: Read WT as Workaholism Test and IFR as Index of Family Relations.
Above table-6 shows correlation between workaholism and family relations. The results show positive correlation between workaholism and family relations ($p < .0001$).

Table VII
Mean difference and t-value on scales in terms of gender among workaholics (N=175)

	Male (N= 77)		Female (N= 98)				
Scale	**Mean**	**SD**	**Mean**	**SD**	**t-value**	**p-value**	**Mean Difference**
WT	74.90	13.513	70.68	11.677	1.787	.076	3.403
IFR	4.83	4.293	3.58	4.206	1.953	.055	1.250

df=173

Above Table-7 shows the mean differences between male and female workaholics on the scores of Workaholism Test, and Index of Family Relation. The figure shows that male workaholic group shows slightly higher mean as compared to female workaholic group. This mean difference of overall scores of workaholic males and females is statistically not significant ($p > .05$). The results indicate that there is no significant difference between male and female workaholics, so workaholism may equally afflict both the genders.

Table VIII
Mean difference and t-value on scales in terms of marital status among workaholics (N=173)

	Group 1 Married (N= 79)		Group 2 Unmarried (N=94)				
Scale	**Mean**	**SD**	**Mean**	**SD**	**t-value**	**p-value**	**Mean Difference**
WT	73.24	11.24	71.38	13.648	.965	.336	1.858
IFR	20.49	17.385	22.67	16.594	-.841	.402	-2.177

df=171

Table-8 shows the mean differences between married and unmarried workaholics on the scores of Workaholism Test, and Index of Family Relation. Although the figure shows that married group shows higher mean as compared to unmarried group but the mean difference is not statistically significant ($p>.05$).

DISCUSSION

The result offer clear support for the hypothesis that workaholics will have poor family relations as compared to non-workaholics. According to Scott et al. (1997) workaholics' prolonged involvement in work results in giving up important social, family, or recreational activities. Mirarth et al. (1981) found that workaholic's family is mostly affected by prolonged working hours.

Significant importance of work family relation has received an increasing amount of attention from the media in recent years. Work-family conflict refers to the incompatibility of the demands and responsibilities of work and family roles. It can occur in both directions, family can interfere with work when a worker is distracted by family problem and work can interfere with family when working hours and schedules make it impossible to give quality time to family.

Robinson and Post (1995) studied the relationship between work addiction and current family functioning. The results revealed significant relationship between work addiction and current family functioning. The higher the scores on test for work addiction, the higher the degree of perceived dysfunction in ones current family. Greater work addiction was found to be related to lower communication, less clearly established family roles and lower general functioning in the families. Pietropinto (1986) and Robinson (1989) suggested that work addiction leads to brittle social and intimate relationships, contributes to marital conflicts, and creates dysfunction within the family. Later on investigation with female counselors revealed that workaholism had a negative impact on marital cohesion (Robinson et al., 2001). Workaholics exhibit inadequate social relations with family members which interfere with personal relations. Single-minded dedication to work and lack of intimate relationships consequently leads to divorce, forgotten relationships (Klaft & Kleiner, 1988). Porter (2001) suggested that workaholics sacrifice their personal relationships for work. The results of the present study are consistent with Russo and Water (2006) suggested that workaholics have higher level of work-family conflict as compared to non-workaholics.

In order to avoid intimacy workaholics spend great deal of time in work (Machlowitz, 1980). Unsatisfactory interpersonal relationships due to the fact that Type As are usually self-centered, poor listeners, often have an attitude of bravado about their own superiority, and are much more easily angered, frustrated, or hostile if their wishes are not respected or their goals are not achieved.

According to Pietropinto (1986) workaholics are always preoccupied with work so their spouses and children become resentful of their psychological unavailability for the family. He further suggested that familial conflicts are inevitable in workaholics' families because workaholics are marital perfectionists and they regard their spouse and children as extension of their ego.

Findings of the present study showed high scores of workaholics on index of family relations which clearly supported the existing anecdotal and clinical data indicating that workaholism contribute to the breakdown of the family relations and family system (Killinger, 1992; Oates, 1971; Robinson, 1998). Workaholism can negatively affect the family members and can contribute to mental health problems of their own (Robinson, 1998; Robinson & Chase, 2000). Workaholics experience poorer relational satisfaction than non-workaholics (Burke & Koksal, 2002) consequently workaholics report poor social functioning (McMillan & O'Driscoll, 2004).

Clinical reports suggest that workaholism strains the marital bond (Herbst, 1996; Weeks, 1995). Many spouses of workaholics describe life with a workaholic as a living nightmare (Robinson, 1998). Further Robinson et al. (2001) found a significant difference between spouses of workaholics and non-workaholics. The results revealed that the spouses of workaholics had greater marital estrangement as compared to wives of non-workaholics. The data of the present study revealed that all the workaholics did not report negative family relations there were few cases of workaholics who were living a healthy and normal life therefore it is important to note that all the workaholics did not have negative family relation.

Conclusion

Work addiction is on rise and the society demands for it. Reliable information about workaholism and non-workaholism is essential for effective planning of satisfied work-family life and national economic growth of a society.

It is concluded from the findings of the present study that the common misconception that people living in third world country are lazy and not dedicated to their work. But the results and the literature of the present study suggest that people living either in third world country or technologically developed country may work hard and both have the equal vulnerability to workaholism.

It is further concluded that the results revealed workaholics as having poor family relations as compared to non-workaholics. There exist a positive correlation between workaholism and poor family relations that led to a conclusion that workaholism leads to poor family relations irrespective of the gender.

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BIRTH ORDER AND MENTAL HEALTH: A STUDY ON ADOLESCENTS IN KARACHI, PAKISTAN

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ABSTRACT

The purpose of the present study is to investigate the effects of ordinal position of birth within the family on the mental health of minority Adolescents in Karachi, Pakistan. After detailed literature review following hypotheses were formulated a) There would be a significant difference between First born and later born adolescents on the variable of self esteem. b) There would be a significant difference between First born and later born adolescents on the variable of depression. Sample of the present research consisted of 71 adolescents (Christian=34 and Hindu=37) from middle socioeconomic class. Family structure of the entire sample was nuclear. The age of participants ranged from 12 to 19 years and their educational level was at least sixth grade. Rosenberg Self-Esteem scale (RSE; Rosenberg, 1965) and Reynold's Adolescent Depression Scale, (RADS-2; Reynolds, 2002) were administered to measure the degree of self-esteem and depression respectively. Analysis of variance (ANOVA) was applied to calculate the difference in the level of self-esteem and depression in minority adolescents having different birth sequence in their family. The results $F(3, 67) = 3.142$, $p < 0.05$ indicate that first born adolescents scored low on the variable self- esteem as compared to second, third and last born among minority adolescents. Furthermore results indicate that there is insignificant difference $F(3, 67) = 0.410$, $p > 0.05$ on the variable of depression among first, second, third and last born minority adolescents.

INTRODUCTION

Family roles govern the perceived expectations and responsibilities placed on children by parents and siblings. Children's perception of their place in the family constellation influences how they feel about themselves, and how they interact with others (Kottman & Johnson, 1993 in Nims, 1998). Components of family structure during

formative years that reflect emotional and affiliative ties are implicated in the psychological status, coping and relating styles of mature individuals (Fullerton, Umaro, Wetzler, & Shearcick, 1989).

Although many genetic and environmental factors contribute to differences between siblings, some differences in behaviors of siblings have been attributed to the effects of birth order (Claxton, 1994). The place of the individual within the family, the first social structure encountered, has been suggested as a contributing factor in shaping human personalities (Gould, 1997), and influencing interactions in subsequent social structures.

Birth order research has always been controversial. One of the first modern psychologists to address the influence of birth order on personality development across the lifespan was Alfred Adler in the 1920's. Since his description of the effects of ordinal position of birth on personality (Claxton, 1994), many theories have been suggested to explain apparent differences.

Although the view that birth order is the sole predictor of development across the lifespan has never been widely accepted, an individual's birth order is a possible influence on relationships with parents and siblings, which may affect personality formation and social behavior across the lifespan (Buckley, 1998). Socialization differences experienced by individuals due to their ordinal position of birth may result in overt personality and behavior differences. As Bischoff and Tingstrom (1991) reported that Regression, anxiety and aggression have been commonly observed in the older child. In the absence of siblings, first born tend to be socialized by adults, whereas later borns are exposed to the socializing influences of older siblings (Claxton, 1994). According to him adults socialized as first borns, are sometimes theorized to be more achievement oriented, while their younger siblings are often believed to be more successful in social endeavours, experience greater enjoyment during risk taking behavior and be more independent of authority. It is acknowledged that such characterizations are general and imprecise at best.

Birth order is defined as the sequential position of a person among his/her siblings in respect to the order of birth. (Adler, 1979). According to Adler (1956), each child is born into a predetermined class of birth order and is attributed different characteristics due to his/her position and the family environment in which he/she lives. Further he suggests these characteristics are learned and may be responsible for many behaviors throughout one's lifetime. These behaviors may also be due to how the child interprets his/her position. It has also been reported that the incidence of major psychiatric illness was increased in individuals, who belonged to beyond the third birth order. In the same way, among Kuwaiti adolescents, family size and birth order had positive correlation with anxiety (Ahmed, et al. 1982).

It has been suggested that the first born personality exhibits greater resiliency (Carson et al., 1992). It could be suggested that the archetypal experiences of first born individuals may foster greater locus of control, providing the individuals with greater confidence in their ability to negotiate stressful stimuli. Causative inferences concerning these factors must be undertaken cautiously, if at all, since a variety of influences shape individual response to stress (Carson et al., 1992), most of which are difficult to control in empirical investigations.

The birth order of a child in a family produces problems specific to that birth order. The older child or first-born is usually looked upon as the leader of the group. The middle-born is often seen as the negotiator, and the last-born is seen as dependent and under his/her parents wing (Kidwell, 1982). Research does suggest being raised in a certain ordinal position does account for specific personalities and differing behaviors. Thus, how parents perceive these positions and interact with the children in these positions may also differ. In the beginning of life, the first-born child receives all the attention from his/her parents. The first-born enjoys this role of the only child until the birth of another child. At this point attention must be shared. Adler (1956) states the first-born may take over a parenting role for the other child and step up to become a leader. However, from the beginning the middle-born must share the parent's attention. This may lead to the middle-born children perceiving favoritism toward the first-born children. The last-born or youngest child is said to face the difficulties of being too pampered and over-protected. Thus, the youngest child may never become fully independent because he/she was spoiled by his/her parents (Adler, 1979). This may make the first-born as well as the middle-born children perceive the last-born as receiving favoritism. Terman (1976) stated that parents tend to have high expectations for the older child and set the oldest up as an example for younger children. Thus, the parents are more tolerant of the younger child. He also stated that middle siblings tend to feel somewhat neglected and less important than their older and younger siblings. Kidwell published findings in 1982 that stated that middle-born children hold distinctively different attitudes than their siblings concerning self and family roles. Middle-born reported feeling cheated of parental attention and supportiveness as well as possessing low self-esteem and a shaky sense of identity. Theorists such as Adler (1956), suggest that birth order affects many aspects of one's life including his/her self-esteem. Social comparison theory states that level of self esteem is determined through comparison of the self with others. First and only children compare themselves to their parents, whereas laterborns compare themselves to older siblings. Gates et al. (1968) found that first-born children showed significantly higher levels of self-esteem than second-born and youngest children. They also found that first born (in some comparisons) showed less depression, less anxiety, and higher self-esteem than later born and only children. But some research has also found that first-borns have lower self-esteem than later-borns (Sampson, 1969).

Depression is an increasingly widespread problem, which may be related to parenting style and sibling birth order. Parents tend to treat first-born children differently

than later-born children. The differences, namely parental protectiveness, may place first-borns at an increased risk for depression. It is important to understand the relationship between birth order and depression in order to appreciate the protective functions certain birth order positions offer and the implications for prevention and treatment of depression. Numerous studies have shown personality differences related to birth order. Alfred Adler postulated that first-borns are "dethroned" by the birth of the next sibling and struggle to overcome this trauma (Sulloway, 1996).

Only a few studies have looked at the relationship between birth order and depression. In a study in Kenya of patients being treated for depression, Ndetei and Vadher (1982) found that being a first-born was significantly associated with being depressed rather than non-depressed. Gates et al. (1988) sought to disprove Adler's suggestion of the first child being "dethroned," and having associated factors like increased rates of depression, higher needs for affiliation and achievement, and stronger dependency needs. In an other study Lester and Caffery (1989) found no relationship between depression scores and birth order or number of siblings among college students.

All over the world researchers highlighted the role of birth order in different dimensions of psychology. However its role and its effect on self-esteem and depression appear to be inconclusive and it has still received less empirical attention as an independent research all over the world. The present study is an attempt to explore the crucial role of birth order especially its effects upon the level of self-esteem and depression of first born in family with reference to minority adolescents.

Keeping in view the above literature following hypotheses were formulated:

a) There would be a significant difference between First born and later born adolescents on the variable of self-esteem.

b) There would be a significant difference between First born and later born adolescents on the variable of depression

METHOD

Sample

The sample of the study was recruited from Karachi, Pakistan. Sample of the present research consisted of 71 minority adolescents, out of whom 34 adolescents were taken from Christian and 37 from Hindu community; gender representation was 40 males and 31 females. The participants were taken from middle socioeconomic class and nuclear family setup. The age of the participants ranged from 12 to 19 years (mean age-16.1yrs) and their educational level was at least sixth grade. The data was collected from St.Patrick's School Karachi, St.Patrick's College Karachi and St. Joseph College Karachi.

Measures

Interview Form

Demographic/Personal information was obtained through items which focused on the subject's age, gender, religion, residential and educational institute locality, geographical region, family structure, birth order, number of siblings, parent's employment and educational status, family members and structure, family income and socioeconomic class. Total administration time for this form is approximately 10-15 minutes.

Wide Range Achievement Test-3

Reading subscale of WRAT-3 (Wilkinson, 1993) consists of 42 items used to tap English reading grade.

Rosenberg Self-Esteem scale

Rosenberg Self-Esteem scale (Rosenberg, 1965) modified version to measure level of self-esteem. It consists of 10 items with a 4-point, Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). Total administration time is 5-10 minutes.

Reynolds Adolescent Depression Scale

Reynolds Adolescent Depression Scale (RADS-2; Reynolds, 2002) is a brief, 30 items self report measure that includes subscales which evaluate the current level of an adolescent's depressive symptomatology along four basic dimensions of depression: Dysphoric Mood, Anhedonia /Negative Affect, Negative Self Evaluation, and Somatic Complaints. Total administration time is 10-15 minutes.

Procedure

Sample of the present study was taken from missionary and their other respective high schools and colleges located in different middle class areas of Karachi. The entire sample was drawn from middle socioeconomic class. Information regarding socioeconomic status, residential locality, parent's income level, total income of the family, number of family members, earning members and educational status were also taken. Permission and letter of consent describing the purpose of the research and inviting participants was provided along with the measures to head of all educational institutes. After getting permission from authorities, the administration of the measures was done individually on each participant. In order to assess English Proficiency grade level of the participants which was a requirement for further administration of other measures in

English language, Reading subscale of Wide Range Achievement Test-3 (WRAT-3; Wilkinson, 1993) was administered. Only those participants having at least sixth grade level of English Proficiency were included. Then Rosenberg Self-Esteem scale modified version (RSE; Rosenberg, 1965) and Reynolds Adolescents Depression Scale (RADS-2; Reynolds, 2002) were administered to measure level of self esteem and depression in adolescents. The whole procedure took approximately 40-60 minutes with each individual. After data collection scoring was done with the help of respective manual of scales.

Statistical analysis

In order to interpret the data in statistical terminology the descriptive statistics (Means, St.D, St. Error of Mean, percentages and frequencies) and Analysis of Variance (ANOVA) were conducted with the help of Statistical Package for Social Sciences (SPSS, 12.0).

Operational definition of the terminology

Self-Esteem: Battle defines self-esteem as which "refers to the perception the individual possess of his or her own worth" (Battle, 1992).

Depression: Depression is a mood disorder characterized by a range of symptoms that may include feeling depressed most of the time, loss of pleasure, feelings of worthlessness, and suicidal thoughts, as well as physical status that may affect eating, sleeping and other activities. There are four basic dimension of depression: Dysphoric Mood, Anhedonia /Negative Affect, Negative Self Evaluation, and Somatic Complaints (Reynolds, 2002).

Adolescents: Children falling in the age range of 12 years to 19 years.

Birth order: Birth order is defined as the sequential position of a person among his/her siblings in respect to the order of birth (Adler, 1979).

First Born: First born child in family.

Later Born: Second, third and last born child in the family.

Religious Minorities: Religious Minorities mean the adolescents of Christian and Hindu community in Pakistan.

RESULTS

Table I
Descriptive statistics of the data by Birth Order

Groups		Frequency	%
First born		17	23.9
Later Born	Second born	12	16.9
	Third born	21	29.6
	Last born	21	29.6

Table II
Descriptive statistics by Gender

Groups	Female		Male	
	N	%	N	%
Hindu	14	45.16	23	57.50
Christian	17	54.84	17	42.50
Total	31	100	40	100

Table III
Mean Age of the sample

	Female N=31	Male N=40	Total N=71
Mean Age	16.533	15.853	16.149

Table IV
Descriptive statistics of the variable of Self -Esteem by Birth Order

Self esteem		N	Mean	Std. deviation
First born		17	17.12	3.238
Later Born	Second born	12	19.67	3.725
	Third born	21	20.29	3.036
	Last born	21	19.43	3.325

Table V
ANOVA among adolescents of various birth orders on the variable of self esteem

	Sum of squares	df	Mean square	F	Sig
Between groups	102.112	3	34.037	3.142	0.031
Within groups	725.860	67	10.834		
Total	827.972	70			

Analysis of the results indicate significant difference F (3, 67) = 3.142, p <0.05 among minority adolescents with different birth orders on the variable of Self-Esteem

Table VI
Post Hoc Comparison among minority adolescents with different Birth Order on the variable of Self-Esteem

Groups		Mean difference	Sig	95 % Confidence interval	
				Lower Bound	Upper Bound
First born	Second born	-2.549(*)	.044	-5.03	-.07
	Third born	-3.168(*)	.004	-5.31	-1.02
	Last born	-2.311(*)	.035	-4.45	-.17
Second Born	Third born	-.619	.605	-3.00	1.76
	Last born	.238	.842	-2.14	2.62
Third Born	Last born	.857	.402	-1.17	2.88

** The mean difference is significant at the .05 level.*

Table IV
Descriptive statistics of the variable of Depression by Birth Order

Depression	N	Mean	Std.deviation
First born	17	62.65	13.820
Second born	12	58.75	11.779
Third born	21	59.38	10.161
Last born	21	59.29	9.722
Total	71	60.03	11.144

Table VII
ANOVA among minority adolescents of various birth orders on the variable of Depression

	Sum of squares	df	Mean square	F	Sig
Between groups	156.573	3	52.191	0.410	.747
Within groups	8537.370	67	127.423		
Total	8693.944	70			

Analysis of the results indicate insignificant difference F (3, 67) = 0.410, p >0.05 among minority adolescents with different birth orders on the variable of Depression.

Table VIII
Post Hoc Comparison among minority adolescents with different Birth Order on the variable of Depression

Groups		Mean difference	Sig	95 % Confidence interval	
				Lower Bound	Upper Bound
First born	Second born	3.897	.363	-4.60	12.39
	Third born	3.266	.378	-4.08	10.62
	Last born	3.361	.365	-3.99	10.71
Second Born	Third born	-.631	.878	-8.78	7.52
	Last born	-.536	.896	-8.69	7.62
Third Born	Last born	.095	.978	-6.86	7.05

DISCUSSION

The analysis of the present study indicates significant difference ($F(3, 67) = 3.142$, $p < 0.05$) on the variable of self-esteem and insignificant difference ($F(3, 67) = 0.410$, $p > 0.05$) on the variable of depression among minority adolescents with different birth order in their families. The transient enthusiasm with which birth order research is investigated is partly caused by the accompanying revival of the nature versus nurture in the formation of human personality debate, and partly by inconsistent and conflicting findings in this area (Claxton, 1994).

Our results show significant difference in the level of self-esteem of first born as compared to second, third and last born (Table VI), which indicates that first born adolescents, have low self-esteem as compared to their counterparts. Birth order theory holds that children develop their behavioral patterns largely as a result of their position within their family (Morales, 1994). Parents are often overly anxious about their first child and may be more restrictive with them than with later children (Eisenman, 1992). They may experience more inconsistent treatment which is thought to be detrimental to formation of a stable self concept and foster greater dependence and fearfulness (Hilton, 1967 in Ernst & Angst, 1983). McHale et al. (1995) conducted research on the differential treatment of siblings and its effects on children's well-being. They found that differential treatment almost always took the form of favoritism toward the younger sibling. Their findings indicated that there may be some positive concomitants, particularly for younger children's well-being and ratings of their parent-child relationships, of being the favored child. As Zervas and Sherman (1994) found that "total self-esteem and two facets of self-esteem were related to parental favoritism. Again, it is not so much that the parents actually favor one sibling over another, but rather that it is perceived to be that way by the child. Freud believed that "being the favored child leads to self-confidence (Zervas & Sherman, 1994).

First born's evaluation about himself changes on the birth of a sibling results in significant changes in the family environment. According to Baydar (1997) positive interactions with an older child may diminish, especially if the birth interval is short and the mother adopts a more controlling parenting style. Further researches have also shown that due to higher expectations that are placed on the oldest child in a family, first-born experience more guilt, anxiety, and difficulty in coping with stressful situations (Sunbeck, 2002 in Karpacz (Ed.)).

Oldest children are seen as more ambitious, given more responsibility and often feel more pressure to succeed (Richardson & Richardson, 1990), yet the experience of dethronement is thought to make firstborns vulnerable to the effects of stress and uncertain in difficult situations (Ernst & Angst, 1983). Middle children are often thought to struggle with finding their place in the family and gaining recognition (Richardson & Richardson, 1990). Youngest children are believed to be accustomed to receiving attention and thought to misbehave if they feel a lack of attention (Nuna, 1998).

Parental expectations from their first born tend to be very high and they incorporate these feelings in their children. First born may feel anxious regarding fulfilling the expectations of their parents. According to Hoopes and Harper, (1987) first born feels validation from other people especially authority figures however when validation is based on opinions from others the validating process may only last for a short time and can be inconsistent. First children must achieve other outcomes in order to continue to feel worthwhile. Their self esteem is often based more on what they can do than on who they are. Therefore when the child does not receive messages from others they can feel incompetent, which causes a threat to their sense of well being. When the external validation disappears the child may feel extremely hurt and neglected.

Although the analysis of the findings of table II (F (3, 67) = 0.410, p >0.05) indicate insignificant difference on the variable of depression of adolescents with different birth order which is inconsistent with the hypothesis formulated. But there are some differences found between the level of depression of different ordinal positions as the mean score (X=62.65) of first born is higher as compared to second (X=58.75), third (X=59.38) and last born (X=59.29) adolescents. According to a psychoanalytic view, distress instigated by the birth of a sibling causes the older child much jealousy and bitterness which are often repressed and may manifest as adulthood insecurity (Falbo, 1984). It is generally agreed that there is some dethronement effect, but its strength and duration are not agreed upon (Ernst & Angst, 1983). The firstborn continues to demand and strive for the same attention and praise from their parents which was given to them before the siblings were born. The first born may come to feel unloved through the perceived loss of mother's love to the new baby.

The second born never expects complete parental attention, supposedly fostering greater cooperation. The stereotype of a neglected middle child may have some basis. This may be an internalized sense of lack of a specific role in the family, and difficulty finding a unique identity, especially after being displaced by a third born child (Buckley, 1998). However youngest children are supposedly more able to successfully pace themselves against older siblings without experiencing psychological exhaustion as the middle child (ren) may encounter (Buckley, 1998).

The relationship between birth order position and psychopathology is well researched, but remains poorly understood due to contradictory findings (Altus, 1972). As Gates et al. (1998) and Lessing and Oberlander (1967) both found firstborns to have the highest self-esteem (excluding only children), Rosenberg (1965) found only children to have the highest self-esteem, and Greenberg et al. (1963) found firstborns to have the lowest self-esteem. However the belief that first born experiences more mental illness has been widespread (Skinner, 1997). Factors along with birth order like family size, number of children, family and social support are important aspects which may also contribute in the psychological well being of individual, especially during childhood or adolescence. Good intellectual and physical development, health status and psychological well being

of the individuals depend upon good family and social support, which in turn need adequate family size and structure, (Kaplan et al.1992). Therefore these factors should be taken under consideration in future researches when studying the effects of birth order.

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SCHOOL SOCIAL BEHAVIOR OF PREDOMINANTLY INATTENTIVE, PREDOMINANTLY HYPERACTIVE/ IMPULSIVE AND COMBINED TYPE ADHD CHILDREN

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ABSTRACT

Attention Deficit / Hyperactivity Disorder (ADHD) has two factors, inattention and hyperactivity/impulsivity, according to the reconceptualization of ADHD by Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 1994). The two factors comprise three subtypes: predominantly inattentive, predominantly hyperactive/ impulsive, and a combined type. The focus of the present study was to screen out ADHD children falling in these three subtypes through Diagnostic Scale for Attention Deficit Hyperactivity Disorder (DS-ADHD) and finding out their differences on Urdu translated version of School Social Behavior Scale (Loona & Kamal, 2004), that comprised of two subscales, namely Social Competence and Anti Social Behavior. ADHD children were diagnosed by the help of DS-ADHD and categorized into three subtypes of ADHD namely predominantly inattentive, predominantly hyperactive/impulsive, and a combined type. Findings of the present study proved the hypothesis that ADHD predominantly hyperactive/impulsive children will score high on total and subscales of Social Competence as compared to ADHD predominantly inattentive and combined type children. However, the second hypothesis of the study that ADHD predominantly inattentive children will score high on total and subscales of Antisocial Behavior as compared to ADHD predominantly hyperactive/ impulsive, and combined type proved non-significant.

INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) is a childhood behavior disorder that includes problems related to inattentiveness and hyperactivity-impulsivity. Each of these two components of the disorder is defined in terms of several behavioral

criteria. Inattentiveness is characterized by behaviors such as carelessness, forgetfulness in daily activities, and problems related to attention. Children suffering from inattention commonly lose their belongings, are easily distracted, can not follow through instructions, and have difficulty in organizing tasks. Fidgeting, restlessness, running about inappropriately, difficulty in playing quietly, and talking excessively characterize hyperactivity. Impulsivity is evident in children, who blurt out answers, can not wait their turn, and interrupt or intrude on others (Hulgin & Whitbourne, 2000). There is increasing evidence that symptoms associated with ADHD continue into adolescence and adulthood for a substantial number of individuals (Klein & Mannuzza, 1991; Weiss & Hechtman, 1986).

Douglas (1997) theorized that the disorder comprise four major deficits, i.e., (i) the investment, organization, and maintenance of attention and effort; (ii) the ability to inhibit impulsive behavior; (iii) the ability to modulate arousal levels to meet situational demands; and (iv) unusually strong inclination to seek immediate reinforcement (also see Barkley & Marsh, 1996).

The diagnosis of ADHD requires display of criterion behaviors for a particular duration. Although these symptoms may appear to some degree in normal children and may vary with developmental level, but diagnosis of ADHD demands display of six or more symptoms of inattention or hyperactivity-impulsivity for at least last six months. The display of symptoms should be to a degree that is maladaptive and inconsistent with developmental level. Behavioral manifestations of ADHD depend somewhat on the settings in which they are observed. Some children appear pervasively inattentive, hyperactive, or impulsive with parents, teachers, or peers. Others appear to show disturbed behavior in only one setting and are said to show situational ADHD (Walker & Roberts, 1992).

The primary clinical characteristics of ADHD according to DSM-IV (1994) are Inattention, Hyperactivity and Impulsivity. The problem with attention is witnessed in child's inability to sustain and respond to tasks, play activities as long as other children of the same age and to follow through rules and instructions. These children are disorganized, distracted, and forgetful than others of the same age. Parents and teachers of ADHD children frequently complain that their children do not seem to listen or pay attention as they should for their age. They can not concentrate, are easily distracted, fail to finish assignments, day dream, and change activities more often than others (Barkley, DuPaul, & McMurray, 1990).

Children with ADHD often are described as *hyperactive*, always on the run, restless, fidget, and unable to sit still. These children squirm, wiggle, tap their fingers, and elbow their classmates. Hyperactive children appear to have difficulty in regulating their actions according to the wishes of others or to the demands of the particular situation. Parents and teachers describe them as acting as if driven by a motor, incessantly in motion, always on the go, and unable to wait for events to occur (Nelson & Israel, 2000).

A number of psychological characteristics have been associated with hyperactivity, obstinacy, stubbornness, negativism, bullying, increased mood liability, low frustration tolerance, temper outbursts, and low self-esteem. These characteristics may be the by product of academic and social problems frequently encountered by hyperactive children. These children are more likely to have poor school achievement, specific learning disabilities and higher incidence of conduct disorders. Hyperactive children, especially those who are also aggressive, may have serious disturbances in their peer relations (Hechtman & Weiss, 1983).

The essence of *impulsivity* is a deficiency in inhibiting behavior, which appears as "acting without thinking". The child may jump in and try to solve a problem before figuring out first step, heedlessly engage in dangerous behaviors, cut in line in front of others, or take shortcuts when performing a task (Barkley & Marsh, 1996).

The prevalence of attention-deficit hyperactivity disorder is frequently estimated at about 3 to 5 per cent of the school-age population. This figure is based on clinic cases, when parents and teachers provide data; prevalence is variable and reaches as high as 20 per cent (American Psychological Association, 1994). Malhi and Singhi (2001) conducted a study aimed at assessing the psychosocial adjustment of children with Attention Deficit Hyperactivity Disorder (ADHD) and contrast with a matched group of healthy children. ADHD has been estimated to be present in as many as 5% to 10% of all school age children (e.g., Anderson, Williams, McGee, & Silva, 1987; Bhatia, Nigam, Bohra, & Malik, 1991; Wolraich, Hannah, Pinnock, Baumgaertel, & Brown, 1996).

Parents and teachers often describe ADHD children as "blurting out answers to questions before the questions have been finished" and "wanting what they want when they want it". Children with ADHD have a lot of trouble waiting for things. ADHD have considerable problems with holding back their initial response to a situation. So as to think before they finally act. They often blurt out comments that they would not likely have made and they thought first. They may act quickly on an idea that comes into their mind without considering that they were in the middle of doing something else that should be finished first. They are excessive and loud talkers, often monopolizing conversations. This behavior is often viewed as rude and insensitive and has negative consequences in both the social and educational arenas. Teachers of ADHD children often note that children often "blurt out comments without raising their hands" in class and "start assignments or tests without reading the directions carefully". They frequently are described as "not sharing" what they have with others and of "taking things they want that don't belong to them" (Barkley, 1995).

Hyperactivity and the impulsiveness seen in ADHD children are part of the same underlying problem a problem with inhibiting behavior. James (1950) said "it is not possible for humans to pay attention to any one thing for more than a few seconds. All of us keep adjusting our eyes and our bodies as we attend to things and often look away

from things briefly before returning the urge to break off our attending to the task to do something else that creates our sustained attention. The ability to keep returning attention to something requires that a person also be able to inhibit urges or tendencies to do other things". (pp. 36-37). The problem with sustained attention in those with ADHD may actually be part of their problem with inhibiting responses to things around them.

Those with ADHD find it much more difficult to resist distracting temptations and to sustain this type of inhibition over urges to do other things while they are working on a lengthy task.

This inattentiveness is that others frequently have to remind those with ADHD of what they are supposed to be doing. Those who supervise the child with ADHD end up frustrated and angry. The ADHD child may fail, be retained in a grade, and eventually dropout. According to Barkley (1996) difficulties with following rules and directions are related to the underlying problem with impulsiveness. It is clear whether the impulsiveness creates the problem by disrupting the rule following when urges to switch to competing activities arise or the impulsiveness stems from an impaired ability of language to guide and control or govern behavior.

ADHD children work inconsistently. Because most ADHD children are of average or greater intelligence, their ability to produce consistently acceptable work often perplexes those around them. The problem is not that they can not do the work but that they can not maintain this consistent pattern of work productivity the way others can. It is quite possible that inconsistent work productivity is a by product of other symptoms, particularly of the core impairment of impulse control. Consistent work productivity demands the ability to inhibit impulses to engage in other, more immediately fun or rewarding activities, so the more limited and erratic one's impulse control is the more variable will be his or her work productivity (Barkley, 1995).

Objective

The objective of the present study is to find out differences in the ADHD predominantly inattentive, ADHD predominantly hyperactive/impulsive, and ADHD combined type children on School Social Behavior Scale (SSBS). A number of psychological characteristics have been associated with hyperactivity,like obstinacy, stubbornness, negativism, business, bullying, increased mood liability, low frustration tolerance, temper outbursts, and low self-esteem. These characteristics may be the outcome of academic and social problems frequently encountered by hyperactive children. Hyperactive children are more likely to have poor school achievement, specific learning disabilities and higher incidence of conduct disorders. Hyperactive children, especially those who are also aggressive, may have serious disturbances in their peer relations (Hechtman & Weiss, 1983).

Hypotheses

1. ADHD predominantly hyperactive/impulsive children will score high on total and subscales of Social Competence Scale as compared to ADHD predominantly inattentive type and combined type children.

2. ADHD predominantly inattentive children will score high on total and subscales of Antisocial Behavior Scale as compared to ADHD predominantly hyperactive/ impulsive type and combined type.

METHOD

Sample

Sample of the present study consisted of 187 ADHD children that were screened out by the help of DS-ADHD from the total sample of (N = 468) children of different Model schools of Islamabad, Pakistan. The sample of ADHD children consisted of (n = 79) girls and (n = 108) boys. The age range of the total sample was from 7 to 13 years. Mean age of the total sample was 10.50 years and for girls it was 10.61 years, and for boys it was 10.42 years. ADHD sample of children was further categorized into three subtypes of ADHD namely Predominantly Hyperactive / Impulsive, Predominantly Inattentive type, and Combined type. The sample distribution in these subtypes of ADHD was, Predominantly Hyperactive / Impulsive (n = 23), Predominantly Inattentive type (n = 49), and Combined type (n = 115).

Instruments

Diagnostic Scale for Attention Deficit Hyperactivity Disorder (DS-ADHD) and School Social Behavior Scale (SSBS) were used in the present study. In addition a demographic information sheet for the child was also given. In which information related to child's age, sex, class, academic performance was asked.

I. Diagnostic Scale for Attention Deficit Hyperactivity Disorder (DS-ADHD)

Diagnostic scale for attention deficit hyperactivity disorder based on diagnostic criteria for ADHD in Diagnostic and Statistical Manual of Mental Disorders (DSM – IV, 1994) was developed. DS-ADHD had three subcategories including Inattention, Hyperactivity and Impulsivity.

II. School Social Behavior Scale (SSBS)

School Social Behavior Scale of Merrell (1993) was translated into Urdu by Loona and Kamal (2004), translated scale was used in the present study to find out

differences in the School Social Behavior of three subtypes of ADHD children. School Social Behavior Scale (SSBS) is consisted of two scales namely Social competence scale and Antisocial behavior scale. Social competence scale further includes three subscales i.e., Interpersonal Skills, Self-Management Skills, and Academic Skills. While Antisocial behavior scale includes three subscales i.e., Hostile-Irritable, Antisocial-Aggressive, and Disruptive-Demanding subscale. SSBS was scored by the help of five point rating scale. "Never" was rated as 1, Rarely as 2, Often as 3, Very often as 4, and "Always" as 5. SSBS was consisted of total 65 questions. Scores on the Social Competence scale could range from minimum 32 to maximum 160. Scores on the Antisocial Behavior scale could range from minimum 33 to maximum 165.

Procedure

ADHD children were screened out using DS-ADHD from the total sample of (*N* = 468), in which (n = 187) children were screened out as ADHD, these children had shown six or more symptoms of Inattention and six or more symptoms of Hyperactivity/impulsivity for the last six months. For exploring differences of subcategories of ADHD, sample was further categorized into ADHD predominantly inattentive, Hyperactive/Impulsivity type, and ADHD combined type. This categorization was also made according to the DSM-IV (1994) criteria. Children with six or more symptoms of inattention but fewer than six symptoms of H/I were diagnosed with ADHD-Predominantly Inattentive type (ADHD/IN), Children with six or more symptoms of H/I but fewer than six symptoms of inattention were diagnosed with ADHD-Predominantly Hyperactive/ Impulsive type (ADHD/HI), and Children with six or more symptoms on both dimensions were diagnosed with ADHD- Combined type (ADHD/CT). Moreover differences of these subcategories on SSBS were also explored to find out their differences on Social Competence Scale and Antisocial Behavior Scale.

RESULTS

Differences on SSBS by ADHD Subtypes

Table 1

Means, Standard deviations and F-ratio of ADHD predominantly Hyperactive/Impulsive, Predominantly Inattentive and Combined type on SC and its subscales (N = 187)

Groups	*M*	*SD*	*F*
Social Competence			
Hyperactive/Impulsive	91.35	23.97	
Inattentive	72.51	18.74	8.424*
Combined type	74.59	18.42	
Total	76.11	20.00	
Interpersonal Skills			
Hyperactive/Impulsive	39.78	11.76	
Inattentive	29.41	10.04	8.310*
Combined type	32.87	9.72	
Total	32.81	10.46	
Self Management Skills			
Hyperactive/Impulsive	28.78	7.64	
Inattentive	26.73	6.86	5.189*
Combined type	24.28	6.77	
Total	25.48	7.05	
Academic Skills			
Hyperactive/Impulsive	22.78	7.06	
Inattentive	16.37	4.22	13.998*
Combined type	17.44	4.72	
Total	17.82	5.29	

df = 185,2. p<.000*

ADHD predominantly hyperactive/impulsive children had highest mean value as compared to ADHD predominantly inattentive type and combined type on Social competence (*M* = 91.35), Interpersonal Skills (*M* = 39.78), Self Management Skills (M =28.78), Academic skills (M = 22.78). Findings proved the hypothesis no. 1 that ADHD predominantly hyperactive/impulsive children will score high on total and subscales of Social competence as compared to predominantly inattentive type and combined type children. ANOVA scores show a significant difference between ADHD predominantly hyperactive/impulsive, predominantly inattentive and combined type children. Therefore it can be concluded that ADHD predominantly hyperactive/impulsive children have relatively better Interpersonal skills as compared to predominantly inattentive type and combined type.

Table II

Means, Standard deviation and F-ratio of ADHD predominantly Hyperactive/Impulsive, Predominantly Inattentive and combined type on ASB and its subscales (N = 187)

Groups	*M*	*SD*	*F*
Antisocial Behavior			
Hyperactive/Impulsive	84.57	21.49	15.584
Inattentive	76.24	19.45	
Combined type	97.24	24.11	
Total	90.18	24.38	
Hostile Irritable			
Hyperactive/Impulsive	37.22	10.64	14.739
Inattentive	30.10	9.94	
Combined type	40.23	11.39	
Total	37.21	11.72	
Antisocial Aggressive			
Hyperactive/Impulsive	22.96	7.19	12.856
Inattentive	21.35	6.93	
Combined type	28.01	8.80	
Total	25.64	8.67	
Disruptive Demanding			
Hyperactive/Impulsive	24.39	6.46	11.853
Inattentive	24.80	5.26	
Combined type	29.00	6.09	
Total	27.33	6.27	

*df = 185,2. *p<.000*

ADHD children who belonged to combined type had highest Mean as compared to ADHD predominantly hyperactive/impulsive and predominantly inattentive type on Antisocial behavior (M = 97.24). ADHD children who belonged to combined type also had highest Mean as compared to ADHD predominantly hyperactive/impulsive and predominantly inattentive type on Hostile Irritable behavior (M = 40.23), Antisocial Aggressive behavior (M = 28.01), Disruptive Demanding behavior (M = 29.00). It gave evidence that ADHD combined type children exhibit more Antisocial behavior as compared to predominantly hyperactive/impulsive and predominantly inattentive type children. Hypothesis no. 2 that ADHD predominantly inattentive children will score high on total and subscales of Antisocial behavior as compared to ADHD predominantly hyperactive/impulsive children and ADHD combined type children has been proved non significant.

DISCUSSION

Attention Deficit Hyperactivity Disorder is a disorder that prevents children from keeping their mind on particular task and also results in hyperactivity. It seriously curtailed their ability to concentrate on the tasks. There is much functional impairment associated with the disorder including poor social functioning, difficulties in peer relations, inadequate and delayed skills (easily frustrated), academic failures and antisocial behavior. These deficiencies are exacerbated in school and in many cases children are excused as immature and held back or marginally passed into the next grade.

The main focus of the present study was to explore differences between the subcategories of ADHD children including predominantly inattentive, predominantly hyperactive/impulsive and combined type on Social Competence Scale of SSBS and its subscales i.e., Interpersonal Skills, Self Management Skills and Academic Skills. Moreover, differences on the Antisocial behavior subscales namely Hostile Irritable, Antisocial Aggressive, and Disruptive demanding were also explored. The categorization into the three subtypes of ADHD was made after quite extensive screening procedure. Children with six or more symptoms of inattention but fewer than six symptoms of hyperactivity/impulsivity were diagnosed with ADHD predominantly inattentive type, children with six or more symptoms of hyperactivity/impulsivity but fewer than six symptoms of inattention were diagnosed with ADHD predominantly hyperactive/impulsive type, and children with six or more symptoms on both dimensions were diagnosed with ADHD combined type. This categorization was made according to the criteria suggested by DSM-IV (1994). The number of children in each group was ADHD predominantly inattentive type 49; ADHD predominantly hyperactive/ impulsive type 23, and ADHD combined type 115 children among the total of 187 children.

Results of present study indicated significant differences between three subtypes of ADHD and first research hypothesis that ADHD predominantly hyperactive/impulsive children will score high on social competence and its subscales as compared to ADHD inattentive and combined type children proved significant (Table I). The findings of the present research confirmed the findings of Barkley, DuPaul, and McMurray (1990) that children with ADHD inattentive type display poor social functioning than ADHD predominantly hyperactive/impulsive and combined type children. Current research findings also revealed that ADHD predominantly hyperactive children performed relatively better than children of ADHD predominantly inattentive and combined type.

According to the findings of Maedgen and Carlson (2000) study on social functioning and emotional regulation in the attention deficit hyperactivity disorder, there were distinct patterns of social dysfunction between ADHD subgroups. They compared 16 children with attention deficit hyperactivity disorder (ADHD) combined type, 14 children with ADHD predominantly inattentive type and 17 controls on parent and teacher ratings of social status and academic performance. Findings of the study revealed

that ADHD combined type puts children at risk for completing their education, peer rejection, and delinquency. As in the present study, findings have shown that ADHD predominantly hyperactive/impulsive children scored high on social competence as compared to ADHD combined type and inattentive type children. It showed that ADHD predominantly hyperactive/impulsive children function relatively better on interpersonal skills, self management skills, and academic skills as compared to ADHD combined type and inattentive type children.

Second hypothesis of the present study was that ADHD predominantly inattentive type will score high on total and subscales of antisocial behavior as compared to predominantly hyperactive/impulsive type and combined type. That hypothesis proved non-significant because ADHD combined type children scored significantly high on total and subscales of antisocial behavior as compared to other two categories. Findings have confirmed the results of a study done by Wheeler and Carlson (1994), in which, they concluded that ADHD combined type children were rated by parents and teachers both as more deviant in social performance. Moreover, current findings also revealed that combined type children, who have high score on inattention and hyperactivity/ impulsivity scale exhibit more antisocial behavior. It is interesting finding that revealed that combined type suffers from dual problems and it contributes more in becoming antisocial and disruptive.

Although the second hypothesis proved non-significant however, this finding is similar to the study of Maedgen and Carlson (2000) that children with ADHD combined type showed more aggressive behavior and they displayed emotional regulation characterized by high intensity and high levels of negative behavior. In contrast, children with ADHD inattentive type were perceived as displayed social passivity and showed deficits in social knowledge.

The present research is a useful contribution in the field of disruptive behavior disorder because almost 3 to 5% children in their middle childhood i.e., 6 to 12 years of age, suffer from Attention Deficit Hyperactivity Disorder (Barkley, 1995). It leads to severe social dysfunction and academic problems in the subsequent years. In Pakistan, unfortunately, there is very little awareness about the childhood behavior disorders and parents and teachers usually blame children as problem creator. An important aspect that social problems and underachievement of children can be due to their behavior problems is usually ignored. Moreover, there is insufficient research done in the area of developmental psychopathology in Pakistan and particularly on ADHD and its effects on the social functioning of the children.

In the light of the findings and discussion of the present research it can be concluded that ADHD is a contributory factor in the social dysfunction and problematic behavior of children. In addition ADHD children suffer from low social competence including poor interpersonal skills, self management, and academic skills. ADHD

children experience more Antisocial behavior including hostile irritable, antisocial aggressive and disruptive and demanding behavior which might be an outcome of their low social competence.

It is essential to create awareness about this disorder and screen out children with ADHD from different settings so that their behavior can be monitored and teachers and parents can be taught specific strategies and interventions to deal with these children. It would prove helpful for these children to perform relatively better in their life as well as in their schools. It will also help these children in enhancing their social competence and eliminating their antisocial behavior. The development of DS-ADHD by translating the Diagnostic Criteria (DSM-IV, 1994) for Attention Deficit Hyperactivity Disorder (ADHD) into Urdu will prove a useful contribution for diagnosis of ADHD in children. The early diagnosis and suitable intervention strategies by teachers and parents would prove useful in improving, social skills, academic performance, and mental health of ADHD children. Moreover, present research will proved a valuable contribution in planning future researches related to Educational, Child, and Clinical Psychology.

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SELF-ESTEEM AS A PREDICTOR OF AGGRESSION

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ABSTRACT

The purpose of the present study was to investigate the relationship between self-esteem and aggression. After detailed literature review it was hypothesized that; low self-esteem would predict high aggression. Sample of the present research consisted of 162 individuals (84 males and 78 females). The age ranges of participants was from 19 to 25 years (mean age 22.12 years). Their educational level was from inter to graduation and they belonged to middle socioeconomic status. The sample of the research was selected from different educational institutions of Karachi. Personal information form was used which consisted of the subject's age, gender, education, marital status and socioeconomic class. Rosenberg Self-Esteem Questionnaire (RSE; Rosenberg, 1965) was administered to assess self-esteem of the subjects and Aggression Questionnaire (AQ; Buss & Perry, 1992) was administered to assess the level of aggression. Regression Analysis was applied for statistical analysis of data. The findings were consistent with the hypothesis formulated, it was found that self-esteem is a significant predictor of aggression ($F = 13.987$, $df = 1, 160$, $p<.001$). Three sub-domains of aggression, physical aggression ($F = 6.084$, $df = 1, 160$, $p<.05$), hostility ($F = 19.831$, $df=1, 160$, $p<.001$) and anger ($F=10.161$, $df = 1, 160$, $p<.01$) were significantly predicted by low self-esteem. However verbal aggression was not significantly predicted by low self-esteem ($F = 0.278$, $df = 1, 160$, $p>.01$) in the present study.

INTRODUCTION

The concept of self-esteem has been studied extensively throughout the psychology literature since its emergence. Rosenberg (1986) views the development of self-esteem from a cognitive developmental approach. Without certain cognitive capacities the individual cannot conceptualize themselves in certain self-esteem terms.

High self-esteem involves feelings of self-acceptance and self-respect, not feelings of superiority over others. Low self-esteem involves feelings of unworthiness, inadequacy, and lack of respect for themselves. Rosenberg (1986) defined the term self-esteem as "the totality of the individual's thoughts and feelings having reference to him-self as an object". Further more self-esteem has been defined as the favorability of an individual's self evaluation in cognitive, affective and social domains (Brown, 1993).

Rosenberg (1965) takes low self-esteem as an element that weakens ties to society; according to social-bonding theory, weaker ties to society decrease conformity to social norms and increase delinquency (Hirschi, 1969). Humanistic psychologists such as Rogers (1961) explain reason of psychological problems, including aggression due to a lack of unconditional positive self regard. Psychoanalyst considers that low self-regard motivates aggression. For example, Horney (1950) and Adler (1956) theorized that aggression and antisocial behavior are motivated by feelings of inferiority rooted in early childhood experiences of rejection and humiliation.

Taking insight from the psychological literature some researchers (e.g. Baumeister et al. 1996, 1998, 2000, & 2003; Bushman, & Baumeister, 1998; Kirkpatrick et al. 2002; Perez et al., 2005; and Webster, & Kirkpatrick., 2006) extensively pursue the mechanism of self-esteem in relation to aggression.

Work of Baumeister with his colleagues (1996, 1998, 2000, & 2003) is more familiar and prominent regarding relationship between self-esteem and aggression. Regarding his work it is crucial to conclude whether self-esteem is a predictor of aggression or not because the results of his studies are contradictory e.g in a study it was found that self-esteem and aggression are positively related with each other but this link between self-esteem and aggression probably occurs at the high end of the self-esteem continuum; that is, unrealistically high self-esteem not low self-esteem, contributes to aggression and crime (Baumeister, Smart, & Boden, 1996). On the other hand Bushman & Baumeister (1998) found that there is no relationship between self-esteem and aggression. His findings are also confirmed by many researches (e.g. Kirkpatrick, Waugh, Valencia & Webster, 2002; Konrath, Bushman & Campbell, 2006; Twenge & Campbell, 2003). After further persuasion it was found that self-esteem and aggression are positively related to each other (Baumeister, Bushman, & Campbell, 2000).

In addition to this, several other studies in past literature failed to find relationship between low self-esteem and externalizing problems (e.g., Byrne, O'Malley & Bucheman, 1981; Jang & Thornberry, 1998; McCarthy & Hoge, 1984). Buss and Perry (1992) studied the relationship between self-esteem and sub-domains of aggression such as anger, physical aggression, verbal aggression and hostility, results of their study found no relationship between self-esteem and physical or verbal aggression. However, a negative correlation was found between hostility and self-esteem level. On the other side of mirror some studies suggest that people with relatively lower level of self-esteem are

at greater risk of behaving aggressively (Ostra & Forrest, 1985) one possible explanation of this relation is might be individuals who have low self-esteem may attempt to enhance their self-perception by demeaning or dominating others (Toch, 1995).

Self-esteem has often been linked with aggression. Bjork, Dougherty and Moeller (1997) defined aggression as the deliberate presentation of an aversive stimulus to another. Several psychological causes have been associated with people being more prone to act aggressively; one of the reasons is the level of self-esteem of the aggressive individual. It was reported in an empirical study that any extreme form of self-esteem, whether intensely positive or negative, may encourage aggression (Papps & O'Carroll, 1998). The results of another research indicate that self-esteem is related to the Physical Aggression subscale, which has been linked to real-world displays of violence (Buchman & Wells, 1998).

In recent literature the persuasion to clarify the controversy towards relationship between self-esteem and aggression seems an ongoing process. Low self-esteem was found to be related to anger and hostility, and several specific problem-solving dimensions were found to be related to anger, hostility, and physical aggression. A series of path analyses found support for a mediational model in which the link between self-esteem and anger is fully mediated by negative problem orientation. In addition, the results also suggested that negative problem orientation partially mediates the relationship between self-esteem and hostility (D'zurilla et al., 2003).

Further more Perez, Vohs and Joiner (2005) studied a curvilinear association between self-esteem and physical aggression, they found that self-reports of physical aggression from undergraduates were highest among those with either low or high self-esteem, and lowest among those with moderate self-esteem. They claimed that the resulting U-shaped quadratic relationship helps resolve discrepant research that has either supported negative, positive, or null relationships between self-esteem and aggression. While in another school-based Asian sample findings indicates that with respect to self-esteem scores, both aggressive and non-aggressive students did not differ significantly from each other (Ang, 2005). Results of another research indicates that the dynamic, functional, and domain-specific nature of self-esteem is differential predictor of aggression and self-esteem is inversely related to behavioral aggression and narcissism, although that relationship between self-esteem and aggression is complex (Webster & Kirkpatrick, 2006).

Keeping in view the inconsistencies regarding self-esteem and aggression debate, present study is an attempt to explore the relationship between the two variables in our culture.

Therefore on the basis of literature review it was hypothesized that:

1. Low self-esteem would predict high aggression.

METHOD

Sample

Sample of the present research consisted of 162 individuals, out of which 84 were males and 78 were females. Their education level was from Intermediate to graduation and they belonged to middle socioeconomic status. The sample of the research was taken from different educational institutes of Karachi. The age range of the participants was from 19 to 25 years (mean age 22.12 years).

Measures

a) Demographic Information: Personal information was obtained through items focusing on the subject's age, gender, and socioeconomic class.

b) Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965), a ten item scale developed to measure global self-esteem. Each item was rated on a 4 point scale from strongly agree to strongly disagree, with higher scores reflecting high self-esteem.

c) The Aggression Questionnaire (AQ; Buss & Perry, 1992). The AQ consists of 29 items that are divided into four subscales: Physical Aggression (9 items), Verbal Aggression (5 items), Anger (7 items) and Hostility (8 items). Items are answered on a 5-point scale ranging from 0 (very uncharacteristic of me) to 5 (very characteristic of me). Evidence of satisfactory validity and reliability are provided by Buss and Perry (1992). Reliability coefficients for each subscale were satisfactory (.82 to .90).

Procedure

Sample of the research was drawn from different educational Institutes of Karachi. After getting consent from subjects, they were briefed about the purpose of the present research and were assured that the data will purely be used for research purpose and their identities will not be revealed to any one. Once the rapport was established, with the help of examiner personal information form was filled focusing on the subject's age, gender, education, and socioeconomic class. Then Rosenberg Self-Esteem Scale (Rosenberg, 1965) was administered in order to measure the level of self-esteem. After five minutes break the Aggression Questionnaire (Buss and Perry, 1992) was administered on the subjects.

Scoring and Statistics

After data collection the questionnaires were scored according to standard procedure. In order to interpret the data in statistical terminology the descriptive statistics (Means and Standard Deviation) was done. Furthermore Regression Analysis was applied to assess the predictive relationship of self-esteem and aggression.

RESULTS

Table I
Descriptive Statistics of Self-Esteem, Aggression and its sub-domains

Variables	Mean	Std. Deviation	N
Self Esteem	18.59	3.640	162
Aggression	84.20	13.690	162
Physical Aggression	24.55	5.137	162
Verbal Aggression	15.99	4.076	162
Hostility	23.15	5.599	162
Anger	20.50	4.745	162

Table II (a)
Modal Summary of Regression Analysis of Self-Esteem as a Predictor of Aggression

	Sum of Squares	df	Mean Square	F	Sig.
Regression	2425.623	1	2425.623	13.987	.000
Residual	27748.056	160	173.425		
Total	30173.679	161			

Table II (b) Coefficients

	B	t	Sig.
(Constant)	104.017	19.264	.000
Self esteem	-1.066	-3.740	.000

Dependent Variable: Aggression
Durbin-Watson= 1.998

Table III (a)
Modal Summary of Regression Analysis of Self-Esteem as a Predictor of Physical Aggression

	Sum of Squares	df	Mean Square	F	Sig.
Regression	155.623	1	155.627	6.084	.015
Residual	4092.478	160	25.578		
Total	4248.105	161			

Table III (b) Coefficients

	B	t	Sig.
(Constant)	29.569	14.260	.000
Self esteem	-.270	-2.467	.015

Dependent Variable: Physical Aggression
Durbin-Watson=1.927

Table IV (a)
Modal Summary of Regression Analysis of Self-Esteem as a Predictor of Verbal Aggression

	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.649	1	4.649	.279	.598
Residual	2670.345	160	16.690		
Total	2674.994	161			

Table IV (b) Coefficients

	B	t	Sig.
(Constant)	15.128	9.050	.000
Self esteem	.047	.528	.598

Dependent Variable: Verbal Aggression
Durbin-Watson=2.071

Table V (a)
Modal Summary of Regression Analysis of Self-Esteem as a Predictor of Hostility

	Sum of Squares	df	Mean Square	F	Sig.
Regression	556.286	1	556.286	19.831	.000
Residual	4490.856	160	28.066		
Total	5047.142	161			

Table V (b) Coefficients

	B	t	Sig.
(Constant)	32.648	15.030	.000
Self esteem	-.511	-4.455	.000

Dependent Variable: Hostility
Durban Watson=1.734

Table VI (a)
Modal Summary of Regression Analysis of Self-Esteem as a Predictor of Anger

	Sum of Squares	df	Mean Square	F	Sig.
Regression	216.436	1	216.436	10.161	.002
Residual	3408.064	160	21.300		
Total	3624.500	161			

Table VI (b) Coefficients

	B	t	Sig.
(Constant)	26.420	13.962	.000
Self esteem	-.319	-3.188	.002

a Dependent Variable: Anger
Durban Watson=1.955

DISCUSSION

An analysis of the results indicate that low self-esteem is a significant predictor of aggression, ($F = 13.987$, $df = 1, 160$, $p<.001$) implying the fact that low self-esteem direct people to behave aggressively. This finding is consistent with the hypothesis formulated and also with previous researches. Research findings suggest that people with low self-esteem are more prone to behave aggressively (Anderson, 1994; Sharpe & Taylor, 1999; Holt, 2005). Another research findings by Demellian et al. (2005), suggest that Self-esteem was negatively correlated with the total aggression and with all of the subscales except verbal aggression. The individuals with low self-esteem perceive themselves as underachievers in comparison to others, and these feelings of inadequacies in the domains that are regarded by the society may continue to frustrate them and this frustration usually results in aggressive behaviors.

Findings of the study further indicated that self-esteem is a significant predictor of physical aggression ($F = 6.084$, $df = 1, 160$, $p<.05$), hostility ($F = 19.831$, $df=1, 160$, $p<.001$) and anger ($F=10.161$, $df = 1, 160$, $p<.01$). Individuals because of having low self-esteem perceive others as empowering them by their aggressive actions; in reaction to this they defend their self-esteem while being hostile. Tracy and Robins (2003) suggested that individuals protect themselves against feelings of inferiority and shame by externalizing blame for their failures, which leads to feelings of hostility and anger toward other people.

Analyses of a variety of aggressive and violent acts have focused on perpetrators with low self-esteem. For example, low self-esteem is a common characteristic among violent youth gangs (Anderson, 1994), bullies (O'Moore & Kirkham, 2001), and late adolescents who perceive themselves as having aggressive tendencies (Gjerde, Block, & Block, 1988). Different hypotheses exist as to why low self-esteem may be correlated with aggression. For instance, one theory suggests that low self-esteem may lead to violence because of limited sources of self-esteem available to the person; thus, low self-esteem people may turn to aggression as an alternative source (Papps & O'Carroll, 1998).

Findings of our study further revealed that low self-esteem was not a significant predictor of verbal aggression ($F = 0.279$, $df = 1, 160$, $p>.05$). It provokes us to search the etiology in the other aspect of the individuals' life, especially the pattern of verbal communication prevailing in the families. Generally in our culture verbal expressions are not facilitated by the parents or adults of the families as well as teachers in educational institutions. An open expression of thoughts and feelings are considered as an act of indecency and are forced to suppress them. That's why often children complain that, "their parents do not listen to their ideas, accept their opinions as relevant or try to understand their feelings and points of view" (Siddiqui, 2003). When children not getting solutions to their problems by mutual communication, they divert their expression from verbal to physical aggression. As according to Siddiqui (2003), absence of

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