

CCP

www.pu.edu.pk/ccp

2006
No. 1
ISSN 1818-6416

Published annually
by the
Centre for Clinical Psychology

Pakistan Journal of Professional Psychology: Research and Practice



Editor

Nosheen K. Rahman. Ph.D.

Pakistan Journal of Professional Psychology: Research and Practice

Editor

Dr. Nosheen K. Rahman Centre for Clinical Psychology, University of the Punjab, Lahore.

Associate Editors

Dr. Aisha Sitwat Centre for Clinical Psychology, University of the Punjab, Lahore.
Dr. Ashiq Ali Shah Clinical Psychologist, St. Joseph Hospital, Hamilton, Ontario, Canada.
Dr. Riffat Zaman Department of Psychiatry, Agha Khan University Hospital. Karachi.
Dr. Ghazala Rahman National Institute of Psychology, Quaid-i-Azam University, Islamabad.
Dr. Anila Kamal National Institute of Psychology, Quaid-i-Azam University, Islamabad.

Board of Consulting Advisors

Dr. Zahid Mehmood Department of Clinical Psychology GCU, Lahore.
Dr. M. Hafeez Department of Sociology, Punjab University, Lahore.
Dr. Seema Munaf Institute of Clinical Psychology, University of Karachi.
Dr. Maher Bano Department of Psychology, Peshawar University, Peshawar.
Dr. Pervez Naeem Tariq National Institute of Psychology, Quaid-i-Azam University, Islamabad.

Editorial Board

Dr. Urusa Fahim San Francisco, USA.
Dr. Saiqa Khan Psychiatry Department, Aga Khan University, Karachi.
Dr. Nigar Khawaja School of Psychology and Counselling, Australia.
Dr. Hamid Sheikh Mustafa Town, Lahore.
Dr. Rukhsana Kausar Department of Psychology, Fatima Jinnah women University, Islamabad.
Dr. Naseem Shaukat New Garden Town, Lahore.
Dr. Saleh Jalil 50 Lyndhurst drive, Canada.
Dr. Salma Siddiqui Department of Psychiatry, CMH, Bahawalpur.
Mr. Sohail Chand Statistics Department, University of the Punjab, Lahore.
Dr. M. Shafiq Department of Psychology, Jamia Millia Islamia, New Delhi, India.
Dr. Dilruba Afroze Department of Psychology, University of Dhaka, Bangla Desh.
Dr. Manzoor-ul-Haque Department of Psychology, Sind University, Hyderabad.
Dr. Ajit Dalal Department of Psychology, University of Allahabad, India.

Publishers

Punjab University Press
Quaid-i-Azam Campus, Lahore-Pakistan

Pakistan Journal of Professional Psychology: Research and Practice

2006
No. 1
ISSN 1818-6416

- Psychosocial correlates of speech-language impairment in the context of
bilingual learning environment in a multicultural setting. 1
Aman Ullah Khan
- Psychosocial correlates of epilepsy 10
Eram Irshad and Maher Bano
- Psychosocial personality features: Among the N.W.F.P. male population. 19
Farhana Jahangir
- Beliefs and self esteem as predictors of depressive symptoms among urban
adolescents of Lahore, Pakistan. 25
Nosheen Khan Rahman and Masha Maqbool Ahmed

Message from the Director
CENTRE FOR CLINICAL PSYCHOLOGY



The Higher Education Commission (HEC) emphasizes high standards in educational and professional development through training and research. Today, Pakistan is facing many challenges, which includes population, poverty, drug related, educational and health related problems; gender related issues; natural and other disasters, un-employment; weakening of family ties; rapid change in value system, etc. Consequently there is confusion experienced both at the individual level and also at the family and community level, resulting in extreme stress. In addition, with the increased urbanization and the rapidly changing International climate there is an increase in the incidence of psychological problems.

These problems pose a great threat to the society and a challenge to the researchers and professionals working especially in the field of mental health. It is important not only to provide professional help to the needy but also to improve upon quality of services, which are provided by conducting research on issues of social significance.

I am glad that the Centre for Clinical Psychology is starting publication of its Journal: "Pakistan Journal of Professional Psychology: Research and Practice", which will benefit researchers and professionals working in Mental Health. I strongly urge professionals and researchers working in this field to contribute in this journal by sending quality research articles, to make it a high standard research publication.

Prof: Dr. Nohsheen K. Rahman

Psychosocial Correlates of Speech-Language Impairment in the Context of Bilingual Learning Environment in a Multi Cultural Setting

Aman Ullah Khan

Language impairment is a major social and health problem. Most of the speech problems are the result of psychosocial correlates in cross-cultural / cross-linguistic perspectives. Hypotheses were formulated relevant to pro-active mother-child verbal transaction, bilingual families, medium of instruction, and religious institutions (madressahs). Research entailed a questionnaire administered on speech-language disorders at the educational institutions / and OPD referrals, diagnosed as speech-language disorders, non-organic in Karachi SouthWest District. The data so collected were subjected to chi-square testing. In terms of the stated objectives, overall results of the research study supported two of the hypotheses pertaining to proactive mother-child verbal transaction, and madressah education (religious institution / school), whereas the other hypotheses remained deficient of the required support for the hypothesized variables like mother-father tongue compatibility i.e. monolingual families and medium of instruction.

While speech-language impairment is considered a major social and health problem, it is quite difficult to define the impairment solely and simply with reference to the attributes of a person's speech. For most practical purposes, speech-language pathology may be defined as speech defects with features of speech that tend to create personal problems that are handicapping or potentially handicapping interpersonal relationships (Bloodstein, 1984). Speech-language disorders may be classified into four main categories: stuttering (fluency) / cluttering disorders, disorders of articulation, voice disorders, and language disorders (Evelyn & Rees, 1972). Various studies have established the fact that "functional" and "organic" factors tend to interact in complex ways to determine the quality of any communication (John, 1976). The major sources of organic disorders are: structural discords, neurological disorder, auditory disorders, endocrinological disorders (cretinism), etc. On the other hand, functional disorders of speech may be due to either faulty learning (a disorder of learning) or faulty motivation, i.e. heightened drive states such as anxiety or other motivation that conflict with normal speech which account for 70-80% of speech language pathology (Cornett, & Chabon, 1988). Various psychological theories attempt to explain the dynamics of speech language pathology in the light of sociological conditions and their impact on the mind resulting into the undesirable symptomatology.

Proactive mother-child relationship is one of the important areas considered relevant to the

development of faulty speech-language faculty in a child in various research studies. In the proactive mother-child relationship, the main focus is on the early social environment which is critical for language development and that in infancy this environment is provided largely by a mother or mother substitute who feels affection for the child (Robert & Glucksberg, 1977). Proactive verbal transaction may be defined as an active participation in verbal exchange of utterances between mother / caregiver and child within a social environment, duly marked with love, care, and compassion (Robert & Glucksberg, 1977). With reference to this context, maternal deprivation called hospitalism is another important phenomenon and is defined as either separation from the mother or inadequate maternal care resulting in retarded growth, increased susceptibility to disease, higher infant mortality, and a delay in general maturation including the acquisition of language. The symptoms of hospitalism may also occur at home when an infant receives insufficient maternal care (Robert & Glucksberg, 1977).

Bilingualism is another important area that has been viewed with concern by some of the research studies carried out in the educational, and socio-cultural perspective. A number of studies (Hakuta & Garcia, 1989; Lambert & Peal, 1972; Lindholm, 1991) have suggested that bilingual students actually have an advantage over monolinguals. For example, speakers of two languages show more cognitive flexibility. They have more linguistic possibilities available for containing situations they encounter because of their multiple-language abilities (Lindholm, 1991). In turn,

this permits them to solve problems with greater creativity. On the contrary, Mehdi (2002) has maintained that there is always a possibility that children exposed to two different languages might experience speech delay if their linguistic exposure is unevenly distributed. When that happens, a young child can experience hesitation and confusion, especially when it comes to communicating in the language to which he or she has been inadequately exposed. To prevent this from happening, Mehdi (2002) suggests that one parent should speak the native language with the child while the other the second language. Then children would be able to associate each parent with a different sound and language pattern.

In the context of bilingualism / multilingualism vis-à-vis medium of instruction in Pakistani school system, according to Mansoor (2001) medium of instruction is one of the most decisive factors in school achievement of the children. Bilingualism by definition implies a learning process where at least two languages are involved. Pakistani students have a multilingual and a multicultural background where Urdu is the mother tongue of only 7 percent of the population and a host of regional languages such as Punjabi, Sindhi, Balochi, Pushto, Seraiki, Gujrati, Memon / Kachi, Hindko, and Brohi along with their numerous dialects are spoken by the majority. The methods of instruction adopted: Urdu, English, Arabic, and any other local language are generally perceived as posing a threat to the regional learners having their mother tongue different from that of the prevalent medium of instruction at their educational institution (Mansoor, 2001). In speech-language developmental perspective, the dichotomy may result in various types of disorders. Thus, it calls for a scientific study of the factors working in bilingualism / multilingualism vis-à-vis medium of instructions in our school system.

According to Rehman (2003) the situation in some areas in both urban and rural parallel educational institutions of 'madressah' are functioning with a mixed medium of instruction i.e. Arabic and Urdu. This further compounds the situation. In addition, English and Urdu are taught till the Intermediate (Class-12) or Graduation (Class-14) as compulsory subjects. All the educational policies underscore the importance of mother tongue on education at the primary level, except in Sindh, where, Sindhi language is also an alternate medium of instruction till High School (Rehman, 2003). Rahman has carried out an in-depth analysis of the impact of bilingualism / multilingualism (Urdu, English and Arabic) in the

development of speech-language pathology in the educational system of Pakistan. According to Abbas (2003) the educational system in Pakistan encompasses Urdu and English medium of instruction parallel to madressah system that is mainly characterized by Arabic and 'Dini Ulum' (religious teachings) taught in highly stressful environmental conditions at some of the religious institutions (madressahs). The concept of bilingualism / multilingualism has been critically examined in the perspective of fear and stress and various speech disorders.

In Pakistan, there is a strong need to ascertain incidence of speech-language impairment. Amongst the cases come for help, many are not diagnosed with speech impairment and go unnoticed because of low awareness. These cases otherwise can be managed, and hence are a source of genuine concern (Mehdi, 2002). This study has been carried out to explore the incidence of speech-language pathology, classification, etiological factors and its psychosocial correlates in particular reference to cross-cultural and cross-linguistic perspective. The study, therefore, aims at a careful investigation of finding out various environmental (non-organic) factors responsible for speech-language pathology in South/ West district, Karachi.

Based on the findings of the currently available literature, certain hypotheses were formulated to ascertain the degree of relationship between the psycho-social variables (correlates) and speech-language pathology as follows:

Hypothesis 1: Pro-active mother-child verbal transaction is positively related with speech-language development.

Hypothesis 2: Monolingual families (mother-father tongue compatibility) as compared to bilingual families are positively related to speech-language development.

Hypothesis 3: Incompatibility of mother tongue vis-à-vis medium of instruction in the educational institution is related to speech-language pathology.

Hypothesis 4: Children studying at religious institutions (madressahs) display greater susceptibility to speech-language pathology.

Method

Sample

For the purpose of this study, the probability sampling procedures were adopted (Guilford, 1956). A list of registered educational institutions established

in Karachi South-West District was procured by the researcher from the Department of Education, Sindh. A combined sample of around 100 participants was drawn from the educational institutions as well as through referrals from PAF Masroor Hospital / Aero-Medical Institute, Psychiatric Centres and Clinics. The actual sample, however consists of 93 cases of speech-language disorder after ruling out physical and organic causes of speech-language pathology such as mental retardation, autism, head injuries, cleft palate, aphasia, larynxgectomy etc. The analyses of the data was carried out on 93 participants with speech-language pathology.

Measures

Questionnaire for demographic information and speech-language pathology information:

The researcher designed a questionnaire comprising of 60 items. The questionnaire included information regarding the participant, his/her family and speech disorder, e.g. name, age, sex, residential address, type of educational institutions, medium of instructions, academic progress at the school, parents' availability at home (number of hours), parents' marital an consanguinity status, occupation, monthly income, family extension (joint/nuclear), mother-tongue compatibility (bilingual / multilingual), order of birth, history of physical / psychiatric illness and speech pathology, etc.

Stuttering Severity Instrument (SSI):

To ascertain the cases of stuttering disorders, SSI diagnostic scale was administered. The SSI attempts to meet the criteria of simplicity, objectivity, and sensitivity of fluency changes of clinical significance. It is reliable, valid and usable with children and adults. The frequency, duration and associated physical

concomitants of prolongations or repetitions of short speech segments are described. Scoring of responses ranged from 0 to 45. The reliability of .84 and validity of .89 qualify the instrument for clinical and research purposes. The SSI Test Form is divided into four major areas: frequency, duration, physical concomitants, and severity conversion tables for children and adults. Stimulus material was used to elicit conversation from the non-reader and to provide reading materials for the reader. The severity of a person's stuttering can be ascertained by comparing his/her scores to the normative data presented in the form of percentiles from very mild to very severe categories. A single numerical score of the SSI provides an assessment of severity and a reference point for measuring clinical changes in language fluency.

Procedure

After seeking consent from the participants and explaining the purpose of the research, the questionnaire regarding demographic, family and illness information was individually administered to each of the respondent and his/her family members.

The investigator examined the tongue movement, lip movement and oral structure deviation anomalies in the participants. He also asked participants about physical causes of symptoms. After ruling out the physical basis of symptoms, diagnostic scales were used to determine the severity, i.e. very mild, mild, moderate, severe, and very severe. To ascertain the cases for stuttering disorders, SSI diagnostic scale was then administered.

Results

The results are presented in the following Tables.

Table 1
Distributions of the sample by overall diagnosis of the speech- language disorders (N = 93)

Sr. No	Overall Diagnoses	Sample Code	Frequency	Percentage
1	Very Mild	A	11	11.82
2	Mild	B	25	26.90
3	Moderate	C	24	25.80
4	Severe	D	18	19.35
5	Very Severe	E	15	16.12

Almost half the cases fall into mild to moderate categories

Table 2

Distribution of the sample with age at the time of diagnosis, the duration of speech-language disorder, medium of instruction & types of institution.

Sr. No	Age at Diagnosis	Sample Code	f	%
1	Less than 6 years	A	34	36.56
2	6 to 10 years	B	45	48.38
3	11 to 15 years	C	14	15.06
Duration of the Disorder				
1	Less than 3 years	A	9	9.70
2	3 to 5 years	B	52	55.90
3	6 to 8 years	C	28	30.10
4	9 to 11 years	D	4	4.30
Medium of Instructions				
Sr. No	Medium of Instructions			
1	English	A	07	7.3
2	Urdu + English	B	12	13.00
3	Urdu	C	51	55.00
4	Arabic + Urdu	D	23	24.70
Types of Institution				
1	Public School (HS)	A	07	7.50
2	Public School (NS)	B	63	67.75
3	Madressah (RS)	C	23	24.65

Table 2 shows that most diagnoses were made before the age of 11, most participants with speech language pathology were having the disorder from 3-5 years, almost half the participants received

education in an Urdu medium school and almost two-third of the sample was from the Public normal schools.

Table 3
Distribution of the sample by mother-tongue of the respondents' mothers

Sr. No	Mother-tongue (Mothers)	Sample Code	f	%
1	Urdu	B	21	22.57
2	Sindhi	C	22	23.65
3	Balochi	D	4	4.30
4	Punjabi	E	25	26.88
5	Makrani	G	3	3.23
6	Kachi / Memon	J	10	10.75
7	Pashto	N	4	4.30
8	Hindko	O	4	4.30

Table 3 shows that Urdu, Sindhi and Punjabi were the most frequently spoken languages at home.

Table 4
Relationship between the mother-child verbal transactions and speech-language pathology: (df = 4)

Mother-child Transactions	Grades on Speech Language Pathology Assessment Scale					Chi-square
	Very mild	Mild	Moderate	Severe	Very Severe	
High Average	35.7 (5/14)	21.42 (3/14)	21.42 (3/14)	14.30 (2/14)	7.15 (1/14)	
Average	8.70 (6/69)	27.50 (19/69)	29 (20/69)	21.75 (15/69)	13.5 (9/69)	19.17*
Low Average	0 (0/10)	30 (3/10)	10 (1/10)	10 (1/10)	50 (5/10)	

* = p < .05

In Table 4 analysis of chi-square shows a significant difference in result pertaining to proactive mother-child verbal transaction for speech-language development.

Table 5
Relationship between monolingual / bilingual families and speech-language pathology: (df=4)

Mother-Father Compatibility (Mother Tongue)	Grades on Speech Language Pathology Assessment Scale					Chi-square
	Very mild	Mild	Moderate	Severe	Very Severe	
Compatible	11.42 (8/10)	25.70 (18/10)	24.27 (17/10)	21.42 (15/10)	17.13 (12/10)	1.19
Incompatible	13.04 (3/23)	30.42 (7/23)	30.42 (7/23)	13.04 (3/23)	13.04 (3/23)	(n.s)

n.s = non-significant

The results in Table 5 shows no significant difference between monolingual and bilingual families with regard to speech-language pathology.

Table 6
Relationship between the mother-tongue (MT) compatibility with medium of instruction (MOI) and speech-language pathology (df = 4)

MT / MOI Compatibility	Grades on Speech Language Pathology Assessment Scale					Chi-square
	Very mild	Mild	Moderate	Severe	Very Severe	
Compatible (B) vs (b)	25 (4/16)	12.5 (2/16)	37.5 (6/16)	18.75 (3/16)	6.25 (1/16)	
Low compatibility (BCDEGHI) vs (ab+jb)	7.14 (5/70)	31.42 (22/70)	22.8 (16/70)	20 (14/70)	18.57 (13/70)	9.99*
Very low compatibility (BCEG) vs (a)	28.57 (2/7)	14.28 (1/7)	28.5 (2/7)	14.28 (1/7)	14.28 (1/7)	

Note: Mother tongue = MT, A = English, B = Urdu, C = Sindhi, D = Balochi E = Punjabi, G = Makrani, F = Katchi/Memon
N = Pashto, O = Hindko, J = Arabic. Medium of instructions = MOI, a = English (MOI), b = Urdu (MOI),
ab = English & Urdu (combined MOI), j = Urdu & Arabic (MOI) * = p < .05

The Chi-square analysis shows a significant effect of mother-tongue compatibility with medium of instruction and speech-language pathology.

Table 7
Relationship between the education at the religious institution (Madressah) and speech-language pathology: (df = 4)

Educational Institutions	Grades on Speech Language Pathology Assessment Scale					Chi-square
	Very mild	Mild	Moderate	Severe	Very Severe	
Liberal Educational Institutions	28.57 (2/7)	14.28 (1/7)	28.57 (2/7)	14.28 (1/7)	14.28 (1/7)	
Normal Institutions (Public/Private)	14.28 (9/63)	31.75 (20/63)	28.57 (18/63)	17.46 (11/63)	7.93 (5/63)	18.14*
Religious Institutions (Madressah)	0 (0/23)	17.39 (4/23)	17.39 (4/23)	26.08 (6/23)	39.13 (9/23)	

* = p < .05

The Chi-square results in Table 7 shows a significant effect of education in religious institutions with speech-language pathology.

Discussion

In terms of the stated objectives, overall results of the present study supported two of the hypotheses pertaining to proactive mother-child verbal transactions, and madressahs' education, while the other hypotheses remained deficient of the required support for the hypothesized variables, like mother-father tongue compatibility (monolingual families) and medium of instruction.

In the context of psychological correlates, the present research study has attempted to develop an important area pertaining to proactive mother-child verbal transactions. The concept of verbal transactions implies that the early social environment is critical for language development (Robert & Glucksberg, 1977). The underlying inference is that in order to develop normal language, the child must have an emotionally satisfying relationship with the mother / mother figure or mother substitute (Bloodstein, 1984). Any denial or deprivation of this relationship may cause detrimental effects on the normal language development of the child. The most clear-cut example of psychosocial deprivation is physical isolation of a child from all social contacts, more commonly referred to as maternal deprivation. Studies have shown that its effects on early development are far-reaching. They include retarded growth, increased susceptibility to disease, higher infant mortality, and delay in general maturation, which includes the acquisition of language (Robert & Glucksberg, 1977). Analysis of the results of the present study duly support the relationship between proactive mother-child verbal transactions and speech language development. It can safely be assumed that children with developmental language difficulties tend to reveal a few speech-language difficulties, such as late onset of language, restricted use and comprehension of words, limited length of their utterances, and failure to grasp grammatical rules needed to produce and understand language at a level appropriate to age.

The research hypothesis stating that the mother-father tongue compatibility (monolingual families) was positively related to speech-language development as compared to bilingual families, was not supported. The inference may therefore lead to the conclusion that there is no significant difference between monolingual and bilingual families with regard to speech-language development (see Table 8). However many studies have suggested that bilingual students may have an edge over students who are monolinguals (Hakuta and Garcia, 1989; Lambert & Peal, 1989; Lindholm, 1991). Generally, it has been

observed that speakers having capability of expressing themselves in two or more languages demonstrate greater jumpstart in situational adaptability. The combinations and permutations of words / vocabulary that they usually possess provide them with a wider repertoire of linguistic possibilities for dealing with situations they encounter because of their multiple-language abilities. Also, this allows them to handle situations with greater innovation and versatility (Lindholm, 1991). Mehdi (2002) however, has maintained that there was always the possibility that children exposed to two different languages might experience speech delay if their linguistic exposure is unevenly distributed. To support this conjecture she further explains that a young child can experience hesitation and confusion, especially when it comes to communicating in the language to which he or she has been inadequately exposed. In order to prevent this from happening, she suggested that children should be provided with a proactive environment, wherein they can develop association with each of the parents speaking a different dialect and language pattern. This would necessitate on an environment where one parent would speak the native language with the child while the other the second language (Mehdi, 2002).

The hypotheses in the present research did not uphold the assertion that the mother-tongue incompatibility with the medium of instructions (MOI) was related to speech-language pathology. Medium of instructions vis-à-vis bilingualism has always been considered as one of the decisive factors in school achievement of the children and possibly speech language pathology. It is generally expected that children exposed to two different languages might experience speech delay if their linguistic exposure is unevenly distributed (Mehdi, 2002). Apprehensions have been vocalized that the medium of instruction which is adopted (Urdu, English or Arabic) poses a threat to the regional learners having their mother tongue different from that of the prevalent medium of instruction at their educational institution (Mansoor, 2001). In the present research study, it was claimed that monolingualism was positively related to speech-language development. In other words, the test results supported the null hypothesis that claimed incompatibility of mother-tongue vis-à-vis medium of instruction which was not positively related to speech language pathology. However, there is much evidence to suggest that children who are bilingual are not at an intellectual disadvantage as compared to children who are monolinguals. To support this further, there has been a growing body of research that suggests that people who speak more than one language may well have some cognitive advantages over monolinguals

(Lindholm, 1991). In the perspective of bilingual / cross-linguistic and cross-cultural impact on the communication disorders, some important studies have been carried out by Hakuta & Garcia (1989), Lambert and Peal (1972) and Lindholm (1991). These studies suggest that bilingual students actually have an advantage over students who speak just one language. For example, speakers of two languages show more cognitive flexibility. They have more linguistic possibilities available for dealing with situations they encounter because of their multiple language abilities. In turn, this permits them to solve problems with greater creativity (Lambert & Peal, 1972). Bilingual students are also better aware of the rules of language and they may understand linguistic concepts more readily (Hakuta & Garcia, 1989).

In the context of existing parallel education system in Pakistan, which includes both Urdu and English Medium of instruction and the madressah educational system, which includes Arabic and Urdu languages. The hypothesis seeking relationship between the children studying at the religious institutions (madressahs) and susceptibility to speech-language pathology provides important indicators on the environmental conditions that exist in these educational systems. This suggests what remedial measures may be taken to overcome the delays in speech-language development. The data collected, however, shows that the children studying at the religious institutions (madressahs) display greater susceptibility to speech-language pathology. In the perspective of educational system prevalent in Pakistan, the hypothesis stating that children studying at the religious institutions (madressahs) do not display greater susceptibility to speech-language pathology is of utmost importance.

Educational system in Pakistan is plagued with a number of dichotomies like out-dated curriculum, faulty methodology, defective examination system, low budgets, etc (Abbas, 2003). Of all these, parallel Urdu / English medium schools (medium of instructions) and the madressahs system mainly characterized by Arabic and 'Dini Ulum' (religious knowledge) have recently caught attention of government authorities and the intelligentsia. While the Urdu / English medium institutions have government prescribed syllabus, the madressahs have 'Dars-i-Nizami' taught by 'Maulvis' (religious teachers / scholars; the equivalent of priests in religious seminaries) (Rehman, 2003). Generally, critics of madressahs are of view that the method of teaching at these seminaries is characterized with a typical harassment, fear of authority (Maulvis) and strict discipline. Some of them want the students to be

indoctrinated in a 'Munazra' style (debate), loaded with emotive tone; more rhetoric and less substantive. The critics are of strong conviction that unnecessary and excessive scolding and pounding of students in madressah has induced a feeling of worthlessness among students and shaken their self-confidence. Moreover, critics allegedly blamed madressah for indulgence in ever increasing incidence of homosexuality. (Abbas, 2003). Due to strong hold and authoritarian attitude of some of the religious teachers, a child studying in the madressah may develop anxiety, tension and physiological abnormalities. His / her emotional, physical, social and psychological development is arrested due to various types of anxiety, tension, depression and aggression which in a way may help explain the adverse effects on the speech-language development of the students studying at these madressah (Shahid, 1992).

The conclusion as to the susceptibility of children to speech-language disorders in view of the environmental conditions that exist in our madressah system needs a cautious approach with due skepticism. Ironically, the environmental conditions, that have been cited for being responsible for speech disorders at madressahs, are also prevalent in Urdu / English Medium Schools, though with varying degrees. While cognizant of the environmental conditions that are present in both the parallel systems, labeling the madressah only for the negative outcome would be an oversimplification of the fact. The supporting data in this study, therefore, needs a more detailed scrutiny through subsequent researches in speech-language pathology with larger sample size, to ascertain the validity of this assertion. The future research in this area may involve cohort studies, so that the exact contours along with the complexities of the speech-language pathology could be ascertained for better prognosis.

References

- Abbas, Y. (2003, January 4). Spare the rod please and help the child. *Dawn*, p. 4.
- Allen, L. E. (1960). *Experimental design in psychological research* (3rd ed). USA: University Press, Seattle Washington.
- Bloodstein, O. (1984). *Speech pathology: An introduction*. USA: Houghton Mifflin company.
- Cornett, S. C., & Chabon, S. S. (1988) *The clinical practice of speech language pathology*. USA: Merrill Publishing Co.

- Evelyn, P., & Rees, N. S. (1972). Disorders of articulation: Some clinical applications of distinctive feature theory. *Journal of Speech and Hearing Disorders*, 37, 451-461.
- Glyndon, D. R. (1984). *Stuttering severity instrument (SSI) for children and adults*. (Rev. ed). USA: CC Publications Inc.
- Guilford, J. P. (1956). *Fundamental statistics in psychology and education*. (3rd ed.). New York: McGraw-Hill.
- Hakuta, K., & Garcia, E. E. (1989) Bilingualism and education. *American Psychologist*. USA.
- John, D. (1976). *Children's illocutionary acts in discourse relations: comprehension and production*. New York: Roy Freedle Lawrence Erlbaum Associates.
- Lambert, W. E., & Peal, E. (1972). The relation of bilingualism to intelligence. In A. S. Dil (Ed.). *Language, psychology and culture*. Stanford: Stanford University Press .
- Lindholm, K. J. (1991) Two-way bilingual/immersion education: Theory, conceptual issue, and pedagogical implications. In R. V. Pedilla & A. Benavides (Eds.), *Critical Perspectives on bilingual education research*. Tempe, USA: Bilingual Review Press .
- Mansoor, S. (2001, October 14) Bilingual education: The best approach. *Dawn*, p 3.
- Mehdi, Z. (2002, September 1) Language acquisition in children. *Dawn*, p 4.
- Rehman, T. (2003, January 12), The education of maulvis. *Dawn*, p 8.
- Robert, M. K., & Glucksberg. (1977). Social and nonsocial speech. *Scientific American*, 107.
- Shahid, S. M. (1992). Child under stress in developing countries, seminar article at 8th All Pakistan Psychological Conference, Lahore, Pakistan.

Psychological Correlates of Epilepsy

Erum Irshad and Maher Bano
Department of Psychology, University of Peshawar
Peshawar, N.W.F.P., Pakistan.

The main objective of the present research was to investigate the vulnerability of epileptics towards various psychological disorders. It was hypothesized that epileptics are significantly different from non-epileptics in terms of their vulnerability to psychological disorders. The sample included 30 epileptics (i.e. grandmal, myoclonic, primary partial seizures, temporal lobe) from Institute of Neurosciences, Hayat Shaheed Teaching Hospital and Mental Hospital Peshawar and 30 non-epileptics volunteers were selected from the population of Peshawar University. Human Figure Drawing Test (HFDT) and Minnesota Multiphasic Personality Inventory (MMPI-1) were administered individually on each participant. Results indicated significant qualitative and quantitative differences between epileptics and non-epileptics. Epileptics scored higher than non-epileptics on several clinical scales of MMPI: Among epileptics, patients with temporal lobe epilepsy showed higher mean scores on emotional indicators (of HFDT) as compared to other epileptics and non-epileptics suggesting that epileptic group may have more emotional problems. Therefore, it was concluded that epileptic patients were more anxious, aggressive, insecure and on the whole had poor self-concept and more symptoms of depression.

Epilepsy is the common neurological problem, evenly distributed throughout the world. It is estimated that every 200th person (0.5 percent of the population) suffers from epilepsy. Prevalence among children is reported to be higher i.e. roughly every 70th child (1.4 % of all children) is affected (Bett, 2000). Epilepsy has been defined as a recurrent paroxysmal disorder of cerebral function characterized by sudden, brief attacks of altered consciousness, motor activity, sensory phenomena or inappropriate behavior caused by abnormal excessive discharge of cerebral neurons (Dennis, 1991).

The history of epilepsy has close links with psychiatry. Both have links with gods, demons, witches, supernatural and have evoked prejudice, disaffection, and malediction from other members of society. Both illnesses can be found in the earliest of medical writings but further, their symbiotic relationship has been a persistent historical theme. While Greeks referred epilepsy as sacred disease, resulting from the invasion of the body by a god, Hippocrates (460-377 BC) on the contrary declared it a natural affliction with hereditary origin. Hill (1981) reported views of Hippocrates that "Melancholic ordinarily become epileptics, and epileptics melancholic". Historical writings describe association between the moon, epilepsy and insanity. In Rome epilepsy was known as morbidus lunaticus. The

timing of seizures thought to be related to light of the full moon and called lunaticos epileptics by Julius Firmicus Maternus in the fourth century AD (Adams, Klinge & Keiser, 1973). In the later half of 19th century, first neuronal theory of epilepsy defined it as occasional, sudden, excessive, rapid and local discharge of gray matter (Reynolds, 1986).

In electrophysiological study of patients with psychomotor surgeries, scientists were impressed with the association of EEG abnormalities in the anterior temporal area with disturbances in personality, since then the concept has expanded and an enormous, controversial literature has evolved relating temporal lobe epilepsy to personality disorders (Lennox, 1992). Epidemiological study by Pond (1989) has suggested that as many as one-third or more patients with active epilepsy have significantly disabling additional psychological problems, which range from cognitive impairment and behaviour disorders to psychiatric illness of all types, especially depression and anxiety (Hill, 1981).

The nature, scale and complexity of its associated psychological disorders emphasize that epilepsy sits firmly on the bridge or interface between neurology and psychiatry and that the study of these associations can be expected to illuminate other aspects of these two disciplines (Trimble & Reynolds, 1976). It is impossible to identify a single cause of the majority of

cases of epilepsy. These cases are known as idiopathic but about one-third of these cases are symptomatic, suggesting there is a definite etiological factor.

Symptomatic epilepsy could be due to prenatal injury, metabolic defects, malformations and disorders, infections, postnatal trauma, brain tumor and vascular disease. Apart from etiological factors, there are some precipitating factors such as stress or fatigue, illness, flashing lights (photic epilepsy), falling asleep or waking up, physical posture, hyper-ventilation, music and noise, drugs, poisons and alcohol, increase in body fluid, hypoglycemia and alternation, and stoppage or withdrawal of medication.

Classification of Epilepsy

Idiopathic Epilepsy

In idiopathic epilepsy, no specific cause can be found and virtually all patients with this type of epilepsy require anti-convulsant drug therapy.

Symptomatic Epilepsy

Although in symptomatic epilepsy, a primary disease may be recognised, patients may still require anticonvulsant, either because the primary condition is not amenable to therapy or they are waiting for primary therapy such as surgery for a tumour. Each of these two groups can show any of the seizure types: (1) Partial seizures (2) Generalized seizures.

The four major types of epilepsy which are focused in this study are:

1) *Grand Mal*

It is the most dramatic manifestation of the disease and can be very frightening for the onlooker. During the seizures the patient can severely injure himself and at the end of seizure, he may at first glance appear to be dead.

2) *Myoclonic*

Myoclonic-atic seizures occur mostly between the third and fifth year of life and are a reflection of the developmental stage of the brain. They are associated with severe mental retardation and progressive brain disease.

3) *Partial Epilepsy*

A 'partial elementary' seizure may occur at any age, and the nature of its manifestation depends on the site of the epileptogenic focus in the motosensory cortex of the brain.

4) *Temporal lobe epilepsy*

'Partial complex' seizures arise in the temporal lobe of the brain and since this region has a low epileptic threshold, this type of seizure is relatively common, accounting for about one third of all epileptics. They mainly occur in the first twenty years of life.

Many studies have been carried out on emotional aspects of epilepsy. Zimmerman (1951) carried out a detailed study of 100 epileptic children aged 3 to 16. Epilepsy of symptomatic origin was said to display more "personality deviation" on the Rorschach test than the other cases. Daly (1975) described the psychiatric symptoms of 100 non-institutionalized patients with temporal lobe lesion, and noted 15 with ictal mood changes of whom ten were said to be dysphoric. Williams (1956) studied 100 patients who felt an emotional experience as part of an epileptic attack. The ictal emotions observed were fear, depression, pleasure, displeasure and possibly anger. Glasser (1988) studied psychiatric symptoms in 25 children with psychomotor epilepsy. Nineteen of the 25 children were psychiatrically disturbed and displayed a common picture of excitability, irritability, nervousness, hyperactivity, aggression, temper tantrums, and depression. Gudmundsson (1966) in a survey of Iceland population compared the prevalence rates of psychiatric illness in epileptics and non-epileptics. 25 percent of epileptics showed neurotic symptoms, 50 percent had some type of abnormal personality, and 8 percent were psychotic. In another study by Bell in 2002, who used Middlesex Hospital Questionnaire and Crown-Crisp Experiential Index (CCEI) to assess the phenomenology and frequency of psychopathology in a group of 281 epileptic patients. The epileptic group as a whole was found to have higher anxiety and depression scores than normal control population.

The present research was conducted to investigate the difference between epileptic and matched non-epileptic groups in terms of their vulnerability to various psychological disorders. It also aimed to study the emotional and behavioral correlates of epilepsy.

Hypotheses

1. Participants with epilepsy are more vulnerable to psychological disorders as compared to non-epileptics.

2. Participants with epilepsy show greater number of emotional indicator on HFDT as compared to non-epileptics.

3. Participants with epilepsy will score higher on

MMPI depression scale as compared to non-epileptics.

Method

Sample

The sample consisted of sixty male participants ranging in age from 20 to 45 years (mean age was 32.4 years for both groups). The reason to choose this age range was to reduce the possibility of inclusion of those patients with early development of damage or those having other cognitive deficits. 30 participants were epileptics and 30 non-epileptics. All epileptics were randomly selected through purposive sampling from psychiatry wards of Hayat Shaheed Teaching Hospital, Mental hospital, and Institute of Neurosciences, Peshawar. The epileptic group included patients diagnosed by psychiatrist as suffering from any of the four types of epilepsy (grand mal, myoclonic, primary partial seizures and temporal lobe epilepsy). The duration of their illness was not more than one year and they never received any anti-convulsant medication as yet. They were initially diagnosed using DSM-IV criteria and EEG was performed to confirm the diagnosis. The non-epileptic group consisted of volunteers from the population residing in Peshawar University. The participants were carefully matched with epileptic group on variables of age, education and socio-economic status.

Instruments

1) Semi-structured Interview

Semi structured interview was conducted to gather information regarding family, medical and psychiatric history and mental status examination.

2) Electro-Encephalo Graph (E.E.G)

A simple technique for recording electrical activity of brain was developed in the early 1930's by Hans Berger. EEG's has proved to be a valuable tool for studying such variables as sleep walking, monitoring depth of anaesthesia, diagnosing epilepsy and brain damage. However, EEG measures were used in the present research to diagnose and select epileptic group.

3) Human Figure Drawing Test (HFDT):

HFDT is a test to assess mental maturity based on work of Goodenough (1947) on children's drawings and paintings. It is also widely used as a projective technique to find out underlying psychological process. As a projective technique according to

Sundburg (1961) it is second only to Rorschach in frequency of use in hospitals and clinics in the United States. The drawings are analyzed for sign of unconscious needs, conflicts, and personality traits when used as a projective technique by the clinicians.

4) Minnesota Multiphasic Personality Inventory - 1 (MMPI-1)

It is a self-report inventory designed to provide an objective assessment of some of the major personality characteristics that affect personal and social adjustment. The MMPI has had wide acceptance and is used especially by clinical psychologists (Thorndike & Hagen, 1995). It evaluates in a quantitative form those traits that are commonly considered abnormal. The original test contains 550 statements but its "Urdu translation" (Mirza, 1977) contains 399 items covering a wide range of subject matter. According to the author the total number of items used to obtain three validity scores and nine clinical scales are 399 whereas remaining 156 items are used in secondary scales. Scoring the inventory is purely objective and is carried out by hand scoring keys. In the present research the Urdu version (Mirza, 1977) was used. The Minnesota Multiphasic Personality Inventory items cover areas such as health, psychosomatic symptoms, neurological disorders and motor disturbances, sexual, religious, political, and social attitudes, educational, occupational, family and marital questions, and many well-known neurotic or psychotic symptoms.

5) Diagnostic and Statistical Manual of Mental Disorders (DSM-IV):

DSM-IV was used to confirm the diagnosis of different psychological disorders among epileptic group in two groups and to rule out any disorder in non-epileptic group.

Procedure

The patients were contacted at psychiatry wards of Hayat Shaheed Teaching Hospital, Institute of Neurosciences and Mental hospital, Peshawar. During initial meeting each patient was motivated to participate in the study being conducted through explaining the purpose of the study to them. After getting their consents to participate, they were individually assessed at a disturbance free place inside the hospital. The assessment was carried out in two phases.

Table 1
Prevalence of psychiatric disorders in epileptic group according to DSM-IV criteria

S. No	Grand Mal (n=7)	Myoclonic (n=7)	Primary Partial seizures (n=8)	Temporal (n=8)
1	Obsessive compulsive	Depression	Obsessive compulsive	Depression
2	Anxiety Attacks	Hypochondriasis	Borderline psychosis	Depression
3	Borderline psychosis	Generalized Anxiety	Borderline psychosis	Generalized Anxiety
4		Depression	Depression	
5		Depression	Depression	Psychosis
6				Depression
7				Depression
8				Depression
Total f (%)	3/7 (43)	5/7 (71)	5/8 (71)	7/8 (88)

Phase I

In this phase, each patient was interviewed to collect information regarding demographic variables, such as family, medical and psychiatric history and mental status examination.

Phase II

In this phase, MMPI and Human Figure Drawing Test (HFDT) were administered to each subject with an interval of at least 24 hours, to avoid boredom and fatigue. Similar assessment procedures were adopted with matched group of non-epileptics with the exception of EEG which was initially used to diagnose epilepsy. Psychiatric diagnosis was made using DSM-IV.

Results

Analysis of variance and t-test were applied to analyse data with the help of Statistical Package for Social Sciences (SPSS).

Psychiatric problems were diagnosed with the help of DSM IV. Results in Table 1 reflects that two third (20/30=66.6%) of the epileptic group had some psychiatric illness, half of those had depression. Anxiety and borderline psychosis were the two other types of disorder found in the epileptic group.

To find out vulnerability to emotional problems in two group, t-test was used.

Table 2
t-test analysis of epileptics and non-epileptics on Human Figure Drawing Test (N = 60)

Groups	M	SD	df	t-value
Epileptics	4.16	1.26	58	12.31****
Non-epileptics	.93	.69		

**** = p < .0001

A significant difference between epileptics and non-epileptics was found on HFDT scores as shown in table 2, which shows that epileptics were more vulnerable to emotional problems than non-epileptics.

Table 3

One way analysis of variance for four groups of epileptics on human figures drawing test (emotional indicators).

Source of Variance	df	SS	MS	F
Between Groups	4	160.63	40.16	39.28****
Within Groups	5	56.22	1.02	
Total	59	216.85	41.17	

**** = p < .0001

Table 3 shows result of one way of analysis of variance that reveals a significant difference among 4 epileptic groups, regarding emotional indicators measured through HFDT.

Table 4

Number of emotional indicators of four group of epileptics on human figures drawing test.

No of cases	GM	M	PPS	TL
(n=30)	(n=7)	(n=7)	(n=8)	(n=8)
1	8	2	5	3
2	4	4	3	4
3	3	4	5	4
4	5	3	3	4
5	5	6	5	4
6	3	5	3	4
7	5	4	4	8
8	-	-	2	7
Total	33	28	30	38
Means	4.71	4.0	3.75	4.75

Note: GM = Grand mal, M = Myoclonic, PPS = Primary Partial seizures, T = Temporal Lobe

Table 4 shows that those with temporal lobe epilepsy and grand mal epilepsy have slightly higher mean scores on emotional indicators, which suggests that these groups may have more emotional problems as compared to other three groups.

The detailed analysis of 27 emotional indicators of HFDT for epileptics and non-epileptics are displayed in table 5.

It can be clearly seen that epileptics consistently got higher scores as compared to non-epileptics on majority of HFDT expressed emotional indicators. Moreover, 6 indicators (number, 1, 3, 10, 16, 22 and 23) were present in almost two-third of the epileptics.

Greater number of emotional indicators on HFDT shown by epileptics as compared to non-epileptics, indicate that epileptics have poor self-concept, feelings of insecurity and depression. They appear to be immature, impulsive, aggressive and emotionally disturbed. Whereas collective scores of non-epileptics showed less number of emotional indicators showing good self-image and emotionally mature and balanced personalities.

Table 5

Number of expressed emotional indicators through Human Figure Drawing Test by epileptics (n = 30) and non-epileptics (n = 30).

Sr.No	Emotional indicators	E	NE
1	Poor integration of parts	17	1
2	Shading of face	5	0
3	Shading of body or limbs	10	3
4	Shading of hands or neck	3	1
5	Gross Asymmetry of limbs	3	0
6	Slanting figure	3	0
7	Big figure	3	5
8	Transparencies	2	0
9	Crossed eyes, turned in or out	1	0
10	Teeth	1	0
11	Short arms	11	6
12	Long arms	2	0
13	Arms clinging to sides of body	2	5
14	Hands cut off or without figures	3	0
15	Legs pressed together	0	5
16	Monster or grotesque figure	11	0
17	No eyes	1	0
18	No body	5	0
19	No arms	1	0
20	No legs	1	0
21	No feet	3	0
22	No neck	13	0
23	Vacant eyes	14	2
24	Broken lines	8	4
25	Side way glance	4	0
26	Hidden hands	1	1
27	Big head	0	1
	Total	126	34

Note: E = epileptics, NE = non-epileptics

Table 6

t-test analysis of epileptics (n=30) and non-epileptics (n=30) on Depression scale of MMPI.

Groups	M	SD	df	t-value
Epileptics	34.30	6.21	58	9.04***
Non-epileptics	19.53	6.45		

*** = p < .001

t-test analysis was carried out to see the difference between epileptics and non-epileptic groups. Table 6 shows that there is a significant difference between depression scores of epileptics and non-epileptics.

Table 7

Mean, SD, and t test results for epileptics (n = 30) and non-epileptics (n = 30) on different scales of MMPI. (df = 58).

Variable	Epileptic		Non-Epileptic		t-value	Sig
	Mean	SD	Mean	SD		
Hs	30.80	7.04	14.23	5.74	9.98	.001
D	34.30	6.21	19.53	6.44	9.04	.0001
Hy	25.13	4.15	19.80	5.04	4.47	.0001
Pd	7.60	8.52	8.30	9.22	0.50	.62
Mf	13.93	10.27	12.50	11.93	0.50	.62
Pa	20.40	6.40	13.36	4.56	4.90	.0001
Pt	21.23	7.91	17.03	8.28	2.01	.049
Sc	36.63	5.05	27.70	4.51	57.27	.001
Ma	26.43	10.33	21.10	6.53	2.39	.02
Si	41.10	7.70	26.53	11.19	5.87	.0001

Epileptics reported higher depression than non-epileptics on MMPI depression scale.

Further analyses were carried out on each MMPI sub-scale. t-test analyses were conducted separately to see the difference between epileptics and non-epileptics. Table 7 shows that epileptics scored significantly higher than non-epileptics on all MMPI scales except on Mf and Pd scales.

Discussion

The findings of present research clearly differentiated between epileptics and non-epileptics in terms of their vulnerability to psychological disorders. Thus first hypothesis that epileptics are more vulnerable to psychological disorders was supported. Among thirty epileptics, two third were diagnosed as suffering from different psychological disorders, which include psychosis, depression, generalized anxiety, obsessive compulsive disorder, hypochondriasis and general symptoms of anxiety. The results support the findings of Pond & Bidwell (1989) who suggested that as many as one third or more patients with active epilepsy have significantly disabling additional psychological problems ranging from the cognitive impairment and behavioural disorders to psychiatric illnesses of all types, especially depression and anxiety.

Among epileptics, majority with temporal lobe

epilepsy were found to be suffering from depression in the present study. The results are in line with the study carried out by Rutter, Graham and Valne (1995) who also reported a high incidence of depressive illness in temporal lobe epileptics. David (1997) in his study also found that depression occurred more frequently in patients with temporal lobe epilepsy than in patients with generalized epilepsy, affecting more than one in five temporal lobe epileptics. It may be due to the fact that temporal lobe is related to the limbic system, which is the anatomical substrate of emotions comprised of Hippocampus and Amygdala occupying a central position in the regulation of emotional expression. Therefore, psychological symptoms frequently occur with seizures arising in the medial temporal lobe.

Results of the present study indicate that epileptics are prone to depression or depressive feelings because personality difficulties acquired by having epilepsy, especially dependency, general lack of social skills and low self-esteem, combined with parental over protectiveness and prejudice, may cause problems in finding friends and work. This, in turn may lead to social isolation, feelings of rejection, frustration and dependency. Small (1972) also found that temporal lobe epileptics would display more psychopathology than patients with other kinds of epilepsy.

Greater number of emotional indicators on HFDT were shown by epileptics as compared to non-

epileptics, which confirmed the second hypothesis indicating that epileptics have poor self-concept, feelings of insecurity and depression. They appear to be immature, impulsive, aggressive and emotionally disturbed. Whereas collective scores of non-epileptics showed less number of emotional indicators showing good self-image and emotionally mature and balanced personalities. Within epileptic group, those with temporal lobe epilepsy showed high mean score on HFDT as compared to other groups of epileptics indicating greater personality changes than those with temporal lobe epilepsy. These findings are in line with what was found by Berent (1992) in his study that temporal lobe epileptics complained of more irritability, impaired concentration and severe depression. Nuffield (1995) also demonstrated in his study that temporal lobe epileptics had high aggression and low neuroticism rating while those with generalized seizures showed the reverse trend i.e. low aggression and high neuroticism ratings.

The detail interpretation of responses of temporal lobe epileptics on HFDT revealed that temporal lobe epileptics have very poor self-concept, low self-esteem, and unstable personalities. They appeared to be aggressive, impulsive, immature, insecure, fearful, stubborn, negative minded and perceive themselves as ridiculous individuals who are not fully accepted by others. The findings of this study strongly support the third hypothesis i.e. patients suffering from temporal lobe epilepsy will show greater changes in personality (i.e. ego-centricity low self-esteem, proneness to aggressive outbursts) as compared to patients having other kinds of epilepsy.

On the other hand, results indicated that the most dominant and recurrent features of epileptic group on the whole were aggression, immaturity and poorly integrated personalities. They also appeared to be anxious about their bodily functions, egocentric, dependent, depressed and had vague perception of the world which result in difficulty in reaching out to the world and toward others.

Significantly higher mean score of epileptics as compared to non-epileptics show that they have relatively high risk to develop psychological disorders which is also in line with their diagnoses based on case history information. Epileptics high score on depression scale of MMPI-1 as compared to non-epileptics, confirmed our fourth hypothesis, i.e. epileptics will score higher on depression scale of MMPI-1 as compared to non-epileptics.

Scores of participants on six clinical scales of MMPI-1 also reflect significant differences in personality characteristics of epileptics and non-

epileptics. High scores of epileptics on these scales suggests that they are concerned about their health, are prone to worry and are more emotional, sentimental, dissatisfied, aloof, apathic, cautious and withdrawn. They are suspicious and sensitive about others perception about themselves. A possible reason of this may be the fact that epilepsy is considered a stigma in our society. As a result, epileptics develop feeling of insecurity, worry and suspiciousness. The high scores of epileptics on paranoia scale suggested that epileptics were prone to worry, sensitive, emotional and readily becoming ego involved in various activities. In contrast, the low scores on paranoia scale of non-epileptics suggest the balance in personality and decisiveness.

The high scores of epileptics on Sc scale suggested that epileptics were emotionally disarticulated, irritable, resentful, aggressive, stubborn and sentimental. Low scores of non-epileptics on this scale characterized them as cautious, conventional, responsible and self-controlled.

The social introversion scale (Si) measures the tendency to withdraw from social contact with others. High scores of epileptics show that they are slow, stereotyped, lacking originality in approach to problems. They are rigid in thoughts and action, overly controlled inhibited and lack confidence in their own abilities. Low scores of non-epileptic suggest that they are sociable, versatile, talkative, assertive and adventurous.

A comparison of MMPI profiles of epileptics and non-epileptics revealed that epileptics were more vulnerable to develop psychological problems, especially depression. These results are also supported by other studies measuring psychological profiles of epileptics on different scales i.e. Rorschach Inkblot test, Crown's Word Ranking Test and Maudsley Personality Inventory (Zimmerman, 1951).

All these personality changes may be inevitable because of the nature of the disease. Being subject to unnecessary stigmatization and labeling, enhances their disability in society related to the prejudice about this disorder. Moreover, when a physician communicates the diagnosis of epilepsy to the patient, people quickly learn to see the status of epileptic as a social and personal liability. This special view of the world predisposes individuals to conceal their condition and its medical label from others. Unlike physical handicaps that are always visible, epilepsy evokes little support from the community. People with epilepsy are particularly stigmatized group. The seizures speak up unannounced in a dramatic manner and cares not for social etiquette. The fear of loss of

control in public sets in motion defensive maneuvers of secrecy and withdrawal. These are particularly marked if the individual has been sensitized by prior ridicule and rejection from his peer group. Such defenses may initially protect an already fragile self-esteem, but in longer term socially isolate the individual. This condition is further intensified by the attitude of the family. Within the family, the function of the epileptic individual can become restricted. In response to the unpredictability of epilepsy, families tend to adopt a rigid, autocratic attitude. As a result, the young person with epilepsy is excluded from active participation in this process and may withdraw entirely from family interaction, which results in the development of different psychological complications. The present research indicated that epileptics are more likely to develop psychological disorders as compared to non-epileptics. Among epileptics two third were diagnosed as suffering from different kinds of psychological disorders while remaining one third showed general symptoms of anxiety whereas there were no signs of psychopathology in non-epileptics. These findings were also supported by analysis of Human figure drawing test and MMPI scores.

References

- Adams, K., Klinge, V., & Keiser, T. W. (1973). The extinction of a self-injurious behavior in an epileptic child. *Behaviour Research and Therapy*, 11, 351-356.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders*. (4th ed.). Washington DC: Author.
- Berent, S. (1992). *Psychological disturbance in epilepsy*. USA: Butterworth & Heinemann p.p. (13-109).
- Bett, D. (2000). *Prevalence and incidence of epilepsy among adults*. New York: Raven press.
- Daly, D. (1975). Ictal manifestations of complex partial seizures. In J. Penry, & D. Daly, (Eds.). *Complex partial seizures and their treatment. Advances in Neurology*. New York: Raven Press.
- David, A. (1997). Anxiety, depression and temporal lobe epilepsy. *Journal of Neurology*, 20, 24.
- Dennis. (1991). *Neurobehavioral problems in epilepsy*. New York: Raven Press.
- Gibbs, F. A. (1948). *Ictal and non-ictal psychiatric disorders in temporal lobe epilepsy*. New York: Raven Press.
- Glasser. (1988). *Anti epileptic drug: Mechanism of action advances in neurology*. New York: Raven press.
- Goodenough. (1947). In Koppitz. *Psychological evaluation of children's drawings*. New York: Grune & Stratton.
- Gudmundsson, D. (1966). Epilepsy in Iceland. *Acta Neurologica Scandinavica*, 43 (Supplement 25), 128.
- Hill, D. (1981). Historical review. In E. H Reynolds, & M. R. Trimble (Eds.). *Epilepsy and Psychiatry*. London: Churchill Livingstone.
- Lennox, W. G. (1960). *Epilepsy and related disorders*. London: Churchill, Livingstone.
- Lennox, W. G. (1992). Brain injury, drugs and environment as causes of mental decay in epilepsy. *American Journal of Psychiatry*, 99, 174-180.
- Mirza, L. (1977). *Minnesota multiphasic personality inventory (MMPI)*. Unpublished manual, Lahore, Pakistan.
- Nuffield, E. J. A. (1995). Neurophysiology and behaviour disorders in epileptic children. *Journal of Mental Science*, 107, 438-458.
- Pond, D. (1989). Psychiatric aspects of epileptic and brain damaged children. *British Journal of Medicine*, 2, 1377-1382.
- Pond, D. A., & Bidwell, B. H. (1989). A survey of epilepsy in fourteen general practices: Social and psychological aspects. *Epilepsia*. New York: Raven press.
- Reynolds, E. H. (1986). Anticonvulsant drugs float metabolism and mental symptoms. In proceedings of *XII Epilepsy International Symposium*. New York: Churchill.
- Rutter, M., Graham, P., & Valne, W. A. (1995). A neuropsychiatric study in childhood. *Clinical Development Medicine*, Vol.35. London: Heinemann.

Small, J. G. (1972). A control study of mental disorder associated with epilepsy: Recent Advances in Biological Psychiatry. *Archives of Neurology*, 7, 187-194.

Sundberg, E. (1961). In E. koppitz. *psychological evaluations of children drawings*. New York: Grune and Stratton.

Thorndike, R. L. & Hagen, E. P. (1995). *Measurement and evaluation in psychology and education* (4th ed.). New York: MacMillan.

Trimble, M. R., & Reynolds, E. H. (1976). Anticonvulsant drugs and cognitive functions: A review of literature. *Epilepsia*, 28, 37-45.

Trimble, M. R. (1989). Anticonvulsant drugs: Mood and cognitive function. In M. R. Trimble; E. H. Reynolds (eds.) *Epilepsy, Behaviour, and Cognitive Function*. (P. 135-143). UK: John Wiley. .

Williams, D. O. (1956). The structure of emotions reflected in epileptic experiences. *Brain*, 79, 29-67.

Zimmerman, F. T. (1951). Use of methylphenylsuccinimide in treatment of petit mal epilepsy. *Archives of Neural Psychiatry*, 66, 156-162.

Psycho-social Personality Features Among N.W.F.P. Male Population

Farhana Jahangir
Head of the Psychology Department
University of Peshawar, Peshawar, Pakistan.

The main objective of the present investigation was to study the psychological and social aspects of the personality of the participants vis-a-vis their socioeconomic status. The authors realizing the degree of importance attached to the social status in Pakistani society and its resultant characterizations of the individuals in the shape of varied interests of the classes, personality traits etc, planned the present project. For this purpose CPI and MMPI were administered upon the participants. (N=695). The design of the study was 2x3 factorial, with 2 (low-high scoring subjects on the CPI sub-scales and the neurotic triad of MMPI) and 3 (socioeconomic classes: upper-middle-lower). The results showed a significant difference between the low-high scoring subjects on the two tests, for the three socioeconomic groups .

According to Allport, Personality is the dynamic organization of those psychophysical systems within the individual that determines his unique adjustment to his environment. Personality may be defined in terms of attributes and qualities that is highly typical of an individual and is an important part of an overall impression created by others (Hall & Lindzey, 1991).

People from different socio-economic backgrounds have different learning experiences. This study emphasized the learning perspective of personality development. Experiences attached with being raised in different socio-economic status (SES) classes are thought to give way to different personality traits prevalent in that class system. People belonging to upper class for example can provide more facilities such as good schooling, exposure to media, respect from the lower classes etc. to their children and a better chance in acquiring healthy personality characteristics. Similarly being free from economic tensions save such children from developing psychological disorders.

The opposite phenomena can be seen in the lower classes i.e. having most of their energies allocated to earning, they are unable to give much time to child rearing practices and are mostly frustrated. This frustration creates a hindrance in developing useful personality traits in their children who in turn become vulnerable to develop disorders.

The interrelationships and the emotional attachments within a family differ from culture to culture and from strata to strata in a specific society.

Stratification into various strata in a society (i.e. upper-middle-lower classes) takes place to define relationship of people belonging to same group and to others on the basis of their uniqueness.

According to Stagner (1961) middle class children in almost all the cultures across the globe balance their long-term goals, hard work at school and control of their aggression in an organized way. They are expected (by parents) to be cooperative with their authorities but not at the expense of their achievement and competitiveness. On the other hand, the lower class youngsters except for socially ambitious ones, are brought up in a less controlled manner with an erratic and a less consistent disciplinary mode. Moreover, most of them experience physical and verbal abuse. Their future rests on an ambition of a secure job, good pay and not on an achievement oriented ambition with clear aims. It is due to the lack of control on parent's part that may result in delinquent behavior of the child and more and more dropouts from school. The children from lower class leave school much earlier than middle and higher classes.

Stagner further asserts that higher class is clearly distinct from other two, because of being a small group of wealthy property owners whose life style is such that even parental control does not exist, children by virtue of their wealth and other accessories can have higher education in the most prestigious institutions. They can afford an expensive living and have much permissive and organized way of life, whereas, middle class life is being more rationally ordered in

comparison with the higher and lower classes.

Lal (1987) provided an empirical evidence of the effects of socioeconomic status upon the self-perception, self-concept, self-image and self-esteem, when he studied boys and girls from high, middle and low socioeconomic classes for his research. In another study, Sacchi, Minzi & Maria (1983), examined the relationship of socioeconomic status and personality variables in Argentina. They found that high socioeconomic class students were more creative, able to express aggression in a controlled manner and were more adept to normal thinking than the lower SES subjects. Lower SES subjects showed more stereotyped thinking and inhibition of affection. In yet another research by Atherley (1991) with 213 children from different SES classes and academic ability concluded that children with low SES reported themselves to be less well-behaved and less happy than those with higher SES and ability.

Hence, it is the contention of the author of this research that successful life is to be seen in the context of one's economic level, which is directly related to the family's occupational and social status that enables individuals to attach meaning to their activity in daily life as also mentioned by Khan, Anila & Pervez (1991). Hypotheses for the present research are as under.

1. The participants belonging to upper class would score higher on CPI as compared to the participants of middle and lower classes.
2. The participants belonging to upper class would have lesser neurotic traits in comparison with those participants who belong to middle and lower classes.

Method

Sample

The sample consisted of 695 male participants who belonged to different geographic locations of North West Frontier Province (NWFP) of Pakistan. The ages of the participants ranged between 18-35 years. The participants were divided into two groups according to their educational qualification i.e. intermediate to Masters and professionals (Medical Doctors, Engineers etc.). 60 out of 695 participants belonged to upper class, 201 from middle and 434 were from lower class.

Each participant was assigned a socioeconomic class (upper-middle-lower) according to his/her annual/monthly income. Those having income of Rs. 30,000 or more were included in upper class, while participants receiving Rs. 15,000-25,000 were put in

the middle class category. Monthly income of Rs. 10,000 or less was categorized with lower class.

Instruments

1. *Personal Information Questionnaire (PIQ)* was constructed by the researcher that included age, name, education, place of residence, monthly as well as annual family income and parental education etc .

2. *California Psychological Inventory, (CPI)* .

Translated and adapted version of California Psychological Inventory (CPI) (Ahmed, 1985), which comprised of 18 subscales was used in the present study. It was initially developed at the University of California by Gough (1957) and two revisions were made in 1987 and in 1995 by the same author. From the latter two revisions, culturally loaded items have been dropped and from original 480 items the number reduced to 462 and 434 respectively. The main goal behind its development was to get the description of normal personality. Its scales principally address to personality characteristics important for social living and interaction. These scales are Dominance, Capacity for status, Sociability, Self-presence, Self-assurance, Well-being, Responsibility, Self control, Tolerance, Achievement-via independence, Intellectual efficiency, Flexibility, Socialization, Good impression, Communality, Achievement via conformance, Psych mindedness, Femininity and Law enforcement. There are four clusters of scales measuring (1) Poise, Ascendancy, Self-assurance, and Interpersonal adequacy (2) Socialization, Maturity and Social responsibility (3) Achievement potential and Intellectual efficacy (4) Personal orientation and Attitude towards life. While three of its scales: Well being, Good impression and Communality are the validity scales designed to check the fake, good, bad and highly popular responses. The CPI has mean of 50 and a standard deviation of 10. For the present study 12 out of 18 subscales of CPI were used because they were thought to be more relevant with the goals of the present study.

In the present investigation KR-20 reliability indices were used for the subscales of CPI for the total sample of 695 participants. The obtained indices of reliability ranged from .72 to .97 with a median value of .89.

3. *Minnesota Multiphasic Personality Inventory (MMPI)*.

MMPI is most widely used for both clinical and

research purposes. Translated and adapted Urdu version of MMPI (Mirza, 1977) was used in this study. It is composed of three validity indicators: Lie (L), Validity (F), correction (K) and ten clinical scales: Hypochondriasis (Hs); Depression (D); Hysteria (Hy); Psychopathic deviate (Pd); Masculinity/Femininity (Mf); Paranoia (Pa); Psychasthenia (Pt); Schizophrenia (Sc); and Hypomania (Ma). However, the reported reliability of the MMPI appears to be quite satisfactory.

Only the neurotic triad out of 13 sub-scales was used in the present study, which comprised of Hysteria (Hy), Depression (D) and Hypochondriasis (Hs) scales. The participants were arranged into low and high scorers according to the standard scores of T=70 on MMPI. The KR-20 indices of reliability indicate a high internal consistency of neurotic triad of MMPI for the present research.

For the present study the inter-correlation among the CPI and MMPI sub-scales were also established.

Research Design and procedure

In this study 2x3 factorial design was used. The participants were arranged into low and high scorers on CPI and MMPI sub-scales according to the standard scores of T=50 in case of CPI and T=70 on MMPI. Hence, the 2x3 design for CPI is: 2 (low-high scorers on CPI sub-scales) and 3 (socioeconomic classes: upper-middle-lower), and 2x3 design for MMPI is: 2 (low-high scores on MMPI neurotic triad) and the 3 (socioeconomic classes: upper-middle-lower).

CPI and MMPI were administered to the participants in a group setting, with 30 participants tested daily according to a fixed schedule and time. Before starting administration, the purpose of the study was explained to the participants and their consent was obtained to participate in the study. The participants filled the Personal Information Questionnaire after completing CPI and MMPI. The scores obtained on the two tests were transferred into standard scores by using the Install Equation Editor and double. This enabled the researcher to divide the scores into low-high categories, i.e. above and below the standard scores prescribed for the two tests.

Results

The results are presented in tables 1-4. Percentages were calculated of participants falling in the low-high score categories for three classes of socioeconomic status (upper-middle-lower) in order

to find the highest and lowest percentage of participants in a particular socioeconomic class.

Table 1

Percentages of participants in High and Low score categories on 12 sub scales of CPI for their socioeconomic status (upper-middle-lower).

Sub-scales	Score	Socio-economic status		
		Upper %	Middle %	Lower %
Do	High	30	25.3	10.6
	Low	70	74.6	89.8
Cs	High	51.7	44.8	25.8
	Low	48.3	52.2	74.2
Sy	High	25	35.3	19.8
	Low	75	64.7	80.2
Sp	High	46.7	36.8	19.1
	Low	53.3	63.1	80.9
Sa	High	63.3	66.2	47.7
	Low	36.7	33.8	52.3
Wb	High	40	31.3	17.5
	Low	60	68.7	80.5
Re	High	51.7	57.7	53.2
	Low	48.3	42.3	46.8
Sc	High	53.3	45.8	40.6
	Low	46.7	54.2	59.4
To	High	58.3	47.8	37.6
	Low	41.7	52.2	62.4
Ai	High	43.3	36.3	29.5
	Low	56.7	63.7	70.5
Ie	High	41.7	31.8	16.1
	Low	58.3	68.2	83.9
Fx	High	36.7	27.9	22.8
	Low	63.3	72.1	77.2

Note: Do = Dominance, Cs = Capacity for status, Sy = Sociability, Sp = Self-presence, Sa = Self-assurance, Wb = Well-being, Re = Responsibility, Sc = Self control, To = Tolerance, Ai = Ach-via independence, Ie = Intellectual efficiency, Fx = Flexibility

Table 1 represents the percentages of participants falling in the high-low score categories of socioeconomic status. The percentage of participants falling in the three categories: upper-middle-lower socioeconomic classes, is greater for the high scoring

participants on the 12 CPI sub-scales than the low scoring ones except for the scales; Self assurance, Sociability and Responsibility. Further, the highest percentage among the three SES categories is for the upper class followed by the middle and the lower class respectively.

Table 2
Percentages of participants according to socioeconomic status and low and high scores on the neurotic triad of MMPI.

Table-2 indicates percentage of participants

MMPI Scales	Score	Socio-economic status		
		Upper %	Middle %	Lower %
Hy	High	9.9	13.1	14.2
	Low	90.9	86.6	85.7
D	High	27.3	34.1	35.0
	Low	72.6	65.8	65.0
Hs	High	8.3	10.4	13.3
	Low	91.6	89.5	86.6

falling in the low-high score categories for their socioeconomic status (upper-middle-lower) on the neurotic triad of MMPI. The percentage of low scoring participants is greater than the high scoring participants. Moreover among high scoring participants belonging to low socioeconomic status have a high percentage followed by the middle and the upper class respectively. Whereas the low scoring subjects have an opposite percentage to the above.

Table 3
A 2x3 Chi-squared analyses between three SES groups (upper-middle-lower) and high and low scores on the neurotic triad (Hy-D-Hs) of MMPI. (df=2)

The results in Table 3 show a highly significant

Neurotic Triad	χ^2	p
Hy	53.60	.000
D	115.77	.000
Hs	52.78	.000

difference between the low-high scoring participants for the three SES classes on the neurotic triad.

Table 4 represents a 2x3 chi-square analyses of the low high scoring participants on the 12 sub-scales of CPI for their socioeconomic status.

Table 4

A 2x3 Chi-Squared Analyses between the three SES groups (Upper, Middle, Lower) and high and low scores on the 12 subscales of CPI. (df=2)

The result shows a highly significant difference

CPI Scales	χ^2	p
Dominance (Do)	32.52	.0000
Capacity for status (Cs)	31.88	.0000
Sociability (Sy)	17.74	.0000
Self presence (Sp)	35.52	.0000
Self assurance (Sa)	21.01	.0000
Well being (Wb)	24.65	.0000
Responsibility (Re)	1.31	.000
Self Control (Sc)	4.29	.000
Tolerance (To)	12.77	.000
Achievement via independence	6.30	.000
Law enforcement (Ie)	32.36	.000
Flexibility (Fx)	6.18	.000

between the low- high scoring participants on the 12 sub-scales for the socioeconomic status of the participants.

Discussion

The results of the study show that the low and high scoring participants belonging to different socioeconomic classes are significantly different on the 12 sub-scales of CPI and the neurotic triad of MMPI. The significantly differentiating sub-scales of CPI and MMPI are meant to identify strong, dominant, influential individuals, who are to take initiative and exercise leadership, have qualities that lead to ambition, self assurance, an undisturbed sense of personal worth, possessing secure and balanced self concept in contrast to those who are devoid of the above qualities. (Megargee 1972, Mckinley, Hathaway & Meehl, 1948).

It is generally considered that the social status plays a vital role in the development of personality, and this in turn shapes the relationships of people with one another and the community as a whole. This social status seems to be cuboid, for it shadows a relation with personality, the occupational and educational system, the income and the social expectancies. In other words people are expected to behave in a particular manner. Socioeconomic status is considered

to be the pillar for the healthy growth and enhancement of a family structure from a total perspective. Economic upheaval or status is a factor, which is overt and can be seen directly affecting the personality of an individual.

Since, the present investigation dealt with a study of personality characteristics through the contribution of participants socioeconomic status, therefore the result of the present study reveals that the participants belonging to the higher SES are scoring high on most of the CPI scales, followed by middle class and the lower class respectively. While on MMPI, lower class has secured the highest percentage, followed by middle class and the upper class on the neurotic triad. This trend of the data endorses hypothesis: that participants belonging to upper class would score highest on CPI and would score low on the neurotic triad of MMPI.

The second hypothesis that the participants belonging to lower class would exhibit more underlying psychological problems in comparison to the middle and the upper class is supported by the results of the study, that the participants belonging to lower class have scored the lowest on all the CPI sub-scales and the highest on the neurotic triad of MMPI. Results of the present study are in line with suggestions based on the findings of Idown and Dere (1983) who suggested as argued earlier that economic soundness leads to mental and physical satisfaction as majority of our desires could be gratified, and this economic satisfaction leads to personal worth, health, confidence, tolerance intellectual and social awareness, and a sense of achievement etc. Schultz (1993), based on his findings also suggested that the higher the socioeconomic status, the higher the aspiration level of the participants. In higher classes external influences, parental influence, extrinsic reward and intrinsic reward are the motivation to the aspirations in various fields of life. Therefore, it is of no surprise that subjects scoring high on CPI sub-scales and low on the neurotic triad have these qualities by virtue of their status. The higher socioeconomic status provides facilities and confers privileges to nurture egoistic gratifications.

While talking of the lower class performance in relation to the present study we expect income differences to be associated with some greater biological and social frustrations i.e. less palatable food, less comforts, less adequate housing has an impact and affects on a persons perception of the world he lives in (Drucker & Remmers, 1952; Atherley, 1991), hence the performance of the subjects belonging to the lower class is understood in relation

to the struggle against the increasing concentration of economic power associated with more worries, less sufficiency etc. It is therefore concluded, by referring to the results of the study that the socioeconomic status plays a pivotal role in the personality makeup of the individuals.

It can be suggested on the basis of the present study that a person belonging to lower SES has less opportunities to develop healthy personality traits which can help him in his future success. So we should keep a soft approach towards lower SES people i.e. in not setting a rigid criteria for selection of candidates for jobs, giving admission in school etc. Similarly government schools should improve their teaching so that the class difference in education at least is minimized.

References

- Ahmad I. (1985). *Development of Urdu Version of California Psychological Inventory (CPI) in Pakistan*. National Institute of Psychology, Quaid-e Azam University, Islamabad, Pakistan.
- Atherley, C. A. (1991). The effects of academic achievement and socioeconomic status upon the self concept in the middle years of school: A case study. *Educational Research*, 32, 224-229.
- Drucker, A. J., & Remmers, H. H. (1952). Environmental discriminants of basic difficulty problems. *Journal of Abnormal and Social Psychology*, 47, 379-381.
- Gough, H. G. (1957). *Manual for the California Psychological Inventory*. Palo Alto, California: Consulting Psychologists Press.
- Idown, I. A., & Dere, O. A. (1983). Relationship of SES and occupational aspirations of high school seniors in Nigeria and the relationship of SES and motivators for occupational preference. *Journal of Employment Counseling*, 20, 186-192.
- Khan, S., Anila, K., & Pervez, S. (1991). Adaptation of Home Inventory (Infant version) for Pakistani Children. *Pakistan Journal of Psychological Research*, 6, 13-23.
- Lal, J. N. (1987). Social class differences in self perception. *Psychological Research*, 10, 30-36.
- Mckinley, J. C., Hathaway, S. R., & Meehl, P. E.

(1948). The MMPI: VI: The K Scale. *Journal of consulting Psychology*, 12, 20-31.

Megargee, E. I. (1972). *The California Psychological Inventory Handbook*. San Francisco, CA: Jossey-Bass

Mirza, L. (1977). *Minnesota Multiphasic Personality Inventory (MMPI)*. Unpublished Manual. Lahore, Pakistan.

Sacchi, C., Minzi, R., and Maria, C. (1983). Preliminary study about marginal children's personality. *Interdisciplinaria*, 4, 167-183.

Schultz, G. F. (1993). Socioeconomic advantage and

achievement motivation important mediators of academic performance in minority children in urban schools. *Urban Review*, 25, 221-222.

Stagner, R. (1961). *Psychology of personality* (3rd ed.). London: McGraw-Hill.

Irrational Beliefs as Predictors of Depressive Symptoms Among Urban Adolescents of Lahore, Pakistan

Nosheen K. Rahman
Centre for Clinical Psychology
University of the Punjab, Lahore

Masha M. Ahmed
Kinnaird College,
Jail Road, Lahore

The present study was conducted to investigate the role of irrational beliefs in the prediction of depressive symptoms among male and female adolescents of Lahore, Pakistan. A purposive sample of 1000 adolescent males and females with an age range of 13 to 19 years from a non-clinical population was taken from bilingual English medium educational institutions of Lahore. The subjects were administered an Irrational Belief Test to identify the irrational beliefs and Beck Depression Inventory-II to measure the degree of depressive symptoms. In addition, Demographic Questionnaire was given to take background information from them. Self Report Questionnaire was given to take the feed back of the subjects regarding assessment tools. Data were analyzed by using Pearson Product Moment Coefficient of Correlation and Multiple Regression Analyses. The results supported the hypotheses that irrational beliefs are important indicators to predict depressive symptoms among male and female adolescents in Lahore, Pakistan. Preventive educational programs can be designed and introduced in the educational institutions for adolescents highlighting the importance of rational beliefs in maintaining adequate mental health.

Depression is generally a mood state characterized by a sense of inadequacy, a decrease in activity or reactivity, pessimism, and related symptoms (Reber, 1995). It is common knowledge that, at one point or another, everyone feels blue in one's lifetime (National Institute of Mental Health [NIMH], 2000). In the Western countries about 40 to 60 percent of physical diseases in the total population are reported to be due to mental illnesses, out of which 15 to 20 percent are due to depression only ("Depression can be", 2004). Epidemiological estimates of adolescent depression in the West indicate that 25 to 40 percent of the adolescent girls report depressive features, whereas estimates for boys are 15 to 20 percent (Santrock, 1998). A four decade study by George (as cited in Maltz & Sommer, 2000) indicated that those individuals who had the most pessimistic view of life while in their 20's tended to be more likely to die or suffer from serious illness in their 40's or 50's. There is empirical research evidence for the higher rates of depressive symptoms in girls than in boys during adolescence (Marcotte, Laurier, Pierre, & Myra, 2002; Rahman, Dawood, & Saleem, 2000; National Mental Health Association, 2001). Seligman (as cited in Ellis & Bernard, 1985) noted that ratio between male and female depression may be as high as 1:10.

Depression is one of the most frequently occurring illnesses in Pakistan (Ali, 2001). Frequent crying, unexplained nervousness, low self esteem, rigid demands, estrangement of friends and family and lack of energy are few vital signs of depression (Kirkland, 2000). Depression in adolescents has long been conceptualized as a normal or transient phenomenon necessitating no therapeutic intervention (Lefkowitz & Burton, 1978; Lapouse, 1966; Werry & Quay, 1971). This has had the effect of limiting research in this domain of childhood and adolescent psychopathology. In the early '80s, the results of clinical reports and epidemiological studies reflecting high rates of depression and suicide in the adolescent population, and the publication of the DSM-III in which it was recognized that adult criteria could be used to diagnose depressive disorders in children and adolescents, markedly influenced the emergence of research on adolescent depression. These changes in the applicability of the adult diagnostic criteria for depression in adolescents have led to greater acknowledgment of the existence of depression in adolescents as a recognizable disorder while recognizing that developmental factors could influence the phenomenology of that disorder at different ages. The devastating effect of depression during adolescence is also reflected in the fact that the

incidence of a depressive episode during that stage of development is predictive of recurrent depressive episodes later in adolescence or adult life (Harrington, Fudge, Rutter, Pickles, & Hill, 1990; Kovacs et al., 1984). For example, Kandel and Davis (1986) found a consistency between 15 and 24 years old subjects in depressive symptoms. Depression during adolescence was also associated with lower psychosocial functioning in young adulthood. In Pakistan, very little work has been conducted especially in relation to different associated factors predicting depressive symptoms. Pakistan, being a developing country has to face many challenges. There is a need to create awareness about depression and its risk factors in the normal population, so that appropriate and effective preventive measures can be undertaken. Thus the following study was planned to find out the role of irrational beliefs in prediction of depressive symptoms.

Epictetus in the first century A.D. stated: "People are disturbed not by things but by the view which they take of them" (as cited in Ellis & MacLaren, 1998; p.41). Many researches have found a relationship between irrational beliefs (IBs) and depressive symptoms (Persons & Rao, 1985; Oei, Etchells, & Free, 1994; Marcotte, 1996; Kovalski & Horan, 1998; Nielson et al., 1996). According to Ellis (1973), the belief system of a person often governs the attitude and approach of a person. Therefore, a clear and rational thinking makes a person less troubled. Ellis further suggested that irrationality causes various problems and leads to various psychiatric disorders, which make an individual nonfunctional. The theory of REBT focuses firmly on the presence of irrational beliefs and their devastating effects on human behavior. Irrational beliefs are defined as matters of personal significance, which can be stated, in absolute terms such as must, should, ought or have to (Ellis & MacLaren, 1998; Shepherd, 1999) and the process of making absolute demands on reality is called musturbation (Dryden, 1984).

Ellis (as cited in Bernard & Joyce, 1984) indicated three modes of human expression: Cognition, emotion and behavior which are often inseparable, they interact reciprocally influencing one another. Ellis and MacLaren, (1998) defined rational as self-helping and irrational as self-defeating. Wessler and Wessler (as cited in Bernard & Joyce, 1984) synthesized the work of Beck, Ellis and Hauck, and explained that depression involves the ideational components of self pity, self downing, helplessness and hopelessness. Ellis and Harper (1961) outlined a number of dysfunctional cognitive processes and irrational

beliefs that lead to depression which include: Demand for Approval, High Self Expectations, Blame Proneness, Frustration Reaction, Emotional Irresponsibility. Anxious Overconcern; Problem Avoidance, Dependency, Helplessness for Change and Perfectionism. Oei, Etchells and Free (1994) in their study explored the relationship between depression and irrational beliefs among clinical and normal individuals. It was observed that clinical group gave higher endorsement to Helplessness for Change, Anxious Overconcern and Blame Proneness. On the other hand, in the graduate sample three irrational beliefs: Anxious Overconcern; Problem Avoidance and High Self-Expectation were found to be predictive of depression. Marcotte (1996) in her study based on a cognitive behavioral perspective, investigated the presence of different categories of irrational beliefs in relation to depressive symptoms in a sample of 349 adolescents. Results revealed that girls demonstrated higher levels of depression, while boys became less depressed once they entered adolescence stage. Strong positive relationship was found between irrational beliefs and depression. Results demonstrated no fluctuation in global scores on irrationality as a function of age or sex. However, the Frustration Reaction category of irrational beliefs showed a decrease with increasing age. Calvete and Cardenoso (2005) in their study found that adolescent girls manifested higher levels of depressive symptoms as compared to adolescent boys. It was also found that boys became less depressed once they entered adolescence age (that is between 11-14 years). Rates of depression for girls increased in a more stable way from pre to late adolescence. They found depression to be related with low frustration tolerance and tendency to dramatize situations among Canadian adolescents; these gender differences and cognitive biases have also been investigated in the present study.

The relationship between irrational beliefs and depressive symptoms has been studied in different samples of children (Burnett, 1995), adolescents (Hammond & Romney, 1995), adults and clinical population (Persons & Rao, 1985; Poulakis & Wertheim, 1993). These researches supported the significant relationship between irrational beliefs and depression. Whilst, researches by Haley, Fine, Marriage, Moretti, and Freeman (1985) and Marton, Churchard, and Kutcher (1993) using clinical samples, also found that depressed adolescents present significantly high cognitive distortions than non-depressed adolescents. In Marton et al.'s study, remission of depressive episode was associated with a decrease of cognitive distortions such as those

measured on the Dysfunctional Attitude Scale (DAS), but nevertheless remained higher than seen in the normal adolescent group.

In a study exploring the developmental aspect of depressogenic thinking, Garber, Weiss, and Shanley studied in 1993, the progression of depressive cognitions in high school students. Results revealed a positive relationship between depression and negative automatic thoughts and dysfunctional attitudes. On the other hand, as scores on depression increased with age, a regression analysis revealed no change over time in the relationship between depressive modes of thinking and symptoms of depression. Also, no change occurred with age in cognitive distortions, suggesting that depressogenic thinking had already been developed.

However, the predictive power of irrational beliefs in relation to depressive symptoms has so far not been investigated among Pakistani population. The present study aims to investigate the relationship between irrational beliefs and depressive symptoms in a non-clinical, adolescent student population of Lahore, Pakistan. It may contribute to the improvement of mental health and psychological well being of adolescents which may facilitate their functioning productively and may help them to contribute more to the betterment of the society.

Hypotheses

1. There will be no relationship between irrational beliefs and depression.
2. There will be no relationship between irrational beliefs and depression in male adolescents.
3. There will be no relationship between irrational beliefs and depression in female adolescents.

Method

Sample

Through purposive sampling data were collected from 1000 adolescent students (Males= 45%; Females= 55%) from 15 different bilingual, English medium schools, colleges and tuition centers of Lahore. The reason to choose these English medium institutions was the language of measuring instruments being used, i.e. English. The age range of the sample was between 13 to 19 years ($M= 16.09$; $SD= 1.75$). All the participants belonged to three different socio-economic classes: Upper class 14.1%, with a monthly income of Rs.50,000 and above;

middle were 58.4%, with a monthly income of Rs.10,000 to 49,000 and lower were 1.4%, with a monthly income of Rs.10,000 or less while 26.1% of the participants did not mention their monthly income. In the main study a sample of 1100 students was taken, however only 1000 questionnaires were completed as 100 questionnaires were either incomplete or the participants were absent, therefore the analysis was run accordingly.

Measures

Demographic Information Questionnaire

Demographic information questionnaire was constructed to get information regarding age, sex, monthly income etc.

Irrational Belief Test (IBT)

The Irrational Belief Test (IBT) was developed by Jones (1969) that measures irrational beliefs in male and female adolescents. It is based on the theory of Rational Emotive Behavior Therapy (REBT) proposed by Ellis (1973). It consists of 100 items which are equally divided into 10 groups and covers 10 dimensions of irrationality: 1) Demand for Approval; 2) High Self Expectation; 3) Blame Proneness; 4) Frustration Reaction; 5) Emotional Irresponsibility; 6) Anxious Overconcern; 7) Problem Avoidance; 8) Dependency; 9) Helplessness for Change and 10) Perfectionism. Each item is rated on a five-point scale from (1) disagree strongly to (5) agree strongly. Jones (1969) reported internal consistency estimates for the individual scales ranging from .66 to .80; a test retest coefficient of reliability of .92 and a concurrent validity coefficient of .61.

Beck Depression Inventory II (BDI-II)

BDI-II is a self report inventory that comprised of 21 items and used to measure levels of depression. Each item is scored on a 4-point scale i.e. from minimal depression (1) to severe depression (4). The test retest reliability of BDI-II is reported to be .93 (Beck, Steer, & Brown, 1996). The alpha coefficient for reliability for out patients is .92 and for the college students is .93. The construct validity between BDI-II and Beck Hopelessness Scale is .68; between BDI-II and the Scale for Suicide Ideation is .37 and the validity between BDI-II and Beck Anxiety Scale is .60 (Beck, Steer, & Brown, 1996).

Procedure

A pilot study was conducted on 50 students:

separately on 25 females and 25 males with an age range of 13 to 16 years ($M = 14$ years) from two English medium and bilingual schools of Lahore in two sittings. Institutional consent was taken from the authorities for students to participate in the study and the purpose of the study was explained to the participants. The aim of the pilot study was to find out the comprehension level of language and concepts used in the English questionnaires and the total time required to administer each instrument. Most of the participants appreciated the concepts and found the questionnaires parsimonious and interesting and no major problems were reported. Same procedure was followed in the main study.

Results

Separate means and standard deviations were computed for each scale and for each sub-scale for the total sample of 1000 male and female adolescents by Using Statistical Package for Social Sciences (George & Mallery, 1999).

Table 1
Means and Standard Deviations of the total and subscale scores of IBT for male and female Adolescents participants ($M=447, F=553$).

Scales	Male		Female	
	M	S.D	M	S.D
DA	30.17	4.62	30.09	3.88
HSE	31.01	5.64	30.30	5.21
BP	31.11	5.89	32.41	4.37
FR	29.75	5.22	29.13	5.11
EI	30.08	4.64	30.83	3.95
AO	30.91	5.06	32.60	13.5
PA	29.19	5.49	29.75	5.11
D	32.42	4.79	31.73	15.7
HC	30.33	6.16	29.90	4.89
P	31.11	5.92	32.43	5.33
Total IBT Score	305.88	31.92	309.59	24.39

DA = Demand for Approval, HSE = High Self Expectation, BP = Blame Proneness, FR = Frustration Reaction, EI = Emotional Irresponsibility, AO = Anxious Overconcern, PA = Problem Avoidance, D = Dependency, HC = Helplessness for Change, P = Perfectionism.

To determine the relationship between irrational beliefs and depressive symptoms, Pearson Product Moment Correlation Coefficient and Multiple Regression Analyses were carried out for the total sample and for male and female separately. Table 1 shows means and standard deviation on all scales of IBT for male and female samples.

Pearson Product Moment Correlation Coefficient was used to find out the relationship between irrational beliefs and depression using total score as well as each subscale score of IBT, for male, female and the total sample separately. Highly significant positive correlation between nine sub-scales of IBT and BDI-II rejects the null hypothesis and indicates that with increase in each type of irrational beliefs, depression also increases, except for IBT scale of Dependency which was not significantly related to depression. Pearson Product Moment Correlation Coefficient results revealed significant relationship between nine subscales of IBT and depression among adolescents. Results are presented in Table 2.

Table 2
Pearson Product Moment Correlation Coefficient between total score of BDI-II with the total and subscale scores of IBT for 1000 Adolescents (Males=447, Females=553).

Scales	Total	Males	Females
DA	.21**	.27**	.14**
HSE	.40**	.31**	.44**
BP	.21**	.34**	.10**
FR	.40**	.35**	.42**
EI	.21**	.35**	.10**
AO	.10**	.35**	.05
PA	.40**	.39**	.43**
D	.03	.06	-.06
HC	.30**	.30**	.30**
P	.30**	.27**	.30**
Total IBT Score	.50**	.52**	.48**

DA = Demand for Approval, HSE = High Self Expectation, BP = Blame Proneness, FR = Frustration Reaction, EI = Emotional Irresponsibility, AO = Anxious Overconcern, PA = Problem Avoidance, D = Dependency, HC = Helplessness for Change, P = Perfectionism. Note: ** = $p < 0.01$

Irrational beliefs were used to predict depressive symptoms among adolescents. Multiple regression analysis was computed on the total sample (see Table 3) and for males and females (see table 4 and 5) separately.

Table 3
Relationship between total score of BDI-II with the total and sub-scale scores of IBT using multiple regression analysis for the total sample. (N=1000).

Scales	B	SE B	β
DA	.00	.06	.02
HSE	.15	.06	.09**
BP	.01	.06	-.04
FR	.35	.05	.20**
EI	.00	.06	.00
AO	.00	.02	-.01
PA	.30	.05	.16**
D	.00	.02	-.03
HC	.00	.05	.06
P	.00	.05	.00
Total IBT Score	.01	.02	.22**

DA = Demand for Approval, HSE = High Self Expectations, BP = Blame Proneness, FR = Frustration Reaction, EI = Emotional Irresponsibility, AO = Anxious Overconcern, PA = Problem Avoidance, D = Dependency, HC = Helplessness for Change, P = Perfectionism.
Note: R2=.30, ΔR2=.30, B= unstandardized coefficient, SE B= standard error of unstandardized coefficient, β= standardized coefficient beta, ** = p < 0.01.

The results in table 3 revealed that the total scores on IBT showed an overall significance in the prediction of depressive symptoms on BDI-II, which accounted for 30% of the total variance. Although results revealed an overall weak prediction but for total sample three sub-scales, i.e. High Self Expectation; Frustration Reaction and Problem Avoidance of IBT were found to be significant predictors of depressive symptoms. Same three irrational beliefs significantly predicted depressive symptoms in females (see Table 5) which accounted for 31% of the total variance. Whereas, among males four subscales of IBT i.e. Frustration Reaction; Emotional Irresponsibility; Anxious Overconcern and Problem Avoidance were found to be significant.

Table 4
Relationship between total score of BDI-II with the total and sub-scale scores of IBT using Multiple Regression Analysis for male adolescents (N=447).

Scales	B	SE B	β
DA	.01	.09	.05
HSE	-.01	.08	-0.6
BP	.01	.08	.06
FR	.26	.08	.15**
EI	.22	.09	.11**
AO	.21	.08	.12*
PA	.26	.08	.16**
D	-.00	.02	-.04
HC	.00	.71	.03
P	.01	.71	.05
Total IBT Score	.00	.02	.18**

DA = Demand for Approval, HSE = High Self Expectation, BP = Blame Proneness, FR = Frustration Reaction, EI = Emotional Irresponsibility, AO = Anxious Overconcern, PA = Problem Avoidance, D = Dependency, HC = Helplessness for Change, P = Perfectionism. **Note:** R2 = .32, ΔR2 = .31, B = unstandardized coefficient, SE B = standard error of unstandardized coefficient, β= standardized coefficient beta, ** = p < 0.01, * = p < 0.05.

predictors of depressive symptoms (see Table 4). Both, the males and females results show a weak prediction. Results for both the sexes showed a weak prediction.

Discussion

The results of the present study provided empirical support for the relationship between irrational beliefs and depressive symptoms in male as well as female adolescents of Lahore, Pakistan.

The first null hypothesis was rejected as global scores on IBT showed an overall prediction of depressive symptoms. High Self Expectation, Problem Avoidance and Frustration Reaction were significant predictors of depressive symptoms. The results of the present study are in line with researches conducted by Burnett (1995) and Oei, Etechells and Free (1994) in Australia and by Erickson, Horan and Hackett (1991) and Marcotte (1996) in the US who found a relationship between both High Self Expectation and Problem Avoidance with depressive

Table 5
Relationship between total score of BDI-II with the total and subscale scores of IBT using Multiple Regression Analysis for Female Adolescents (N=553).

Scales	B	SE B	β
DA	-.01	.10	-.04
HSE	.25	.10	.15**
BP	-.15	.10	-.07
FR	.27	.10	.16**
EI	-.21	.10	-.09
AO	-.00	.02	-.04
PA	.21	.10	.12**
D	.00	.10	-.03
HC	.01	.08	.04
P	.00	.08	-.03
Total IBT Score	.11	.04	.30*

DA = Demand for Approval, HSE = High Self Expectation, BP = Blame Proneness, FR = Frustration Reaction, EI = Emotional Irresponsibility, AO = Anxious Overconcern, PA = Problem Avoidance, D = Dependency, HC = Helplessness for Change, P = Perfectionism. **Note:** R2 = .31, Δ R2 = .30, B = unstandardized coefficient, SE B = standard error of unstandardized coefficient, β = standardized coefficient beta, ** = $p < 0.01$, * = $p < 0.05$.

symptoms among both male and female adolescents. This relationship according to these researches may be defined as a by product of lack of maturity usually found in the adolescent age. Adolescence is considered as a transitory phase, which, Erickson (as cited in Schacter & Romano, 1993) called identity versus role diffusion; as going through transitions these young minds may avoid problems rather than solving them. Further analyses in the present study, separately for male and female adolescents, revealed no relationship between High Self Expectation and depressive symptoms among male adolescents. On the contrary, strong relationship was found between High Self Expectation and depressive symptoms among female adolescents. This may also be due to the socio-cultural differences as in Asian culture expectation of parents and family is related to children in different spheres of life whereas, females being more emotional and sensitive may tend to hold the irrational belief of High Self Expectation that may lead to depression.

Moreover, these differences may be due to the practice of collectivism in our society as males are considered to be the breadwinners therefore the collectivist families give preference to the male child in certain stances specifically when it comes to education, freedom, independence etc. On the contrary, in the West society is more individualistic which focuses more upon individual benefits. This may also be a factor for the contrasting results.

In addition, Frustration Reaction was found to be a predictor of depressive symptoms both in males and females. Results of earlier studies conducted in the US by Marcotte (1996), Oei et al. (1994) in Australia and Calvete and Cardenoso (2005) in Canada supported the above findings. It may be defined in the context of transition in adolescence as the adolescent undergoes many physiological and psychological changes. These hormonal and emotional changes are manifested in an adolescent's unstable mood and exaggerated reactions to the environmental events that increase frustration reaction.

The second null hypothesis was rejected as three sub-scales of IBT: Frustration Reaction, Emotional Irresponsibility and Anxious Overconcern were found to be significant predictors of depressive symptoms among male adolescents. Further, third null hypothesis was also rejected as three sub-scales of IBT i.e. High Self Expectation, Frustration Reaction and Problem Avoidance were found to be significant predictors of depressive symptoms among female adolescents. However, most of these IBs did not predict depressive symptoms when male and female scores were combined. There are seven sub-scales of IBT: 1) Demand for Approval 2) Blame Proneness 3) Dependency 4) Anxious Overconcern 5) Perfectionism 6) Emotional Irresponsibility 7) Helplessness for Change which are not predictive of depressive symptoms among adolescents in Pakistan. In contrast, Koestner et al. (1990), Erickson et al. (1991), Oei et al. (1994), Burnett (1995) and Marcotte (1996) found strong relationship between these subscales and depressive symptoms among adolescents in the US and Australia. These differences may be due to the socio-cultural factors as in Pakistan, extended family system is practiced. The practicing rule in the extended families include that children are not given the opportunity to make decisions on their own but are directed to do things by the elders. In the West individualistic approach is practiced whereas in East collectivism is more prevalent, which can also be a reason for the non-significant results.

Conclusion

The results of the present study partially support the theory as Ellis purports that irrational beliefs are the cause of psychological disorders and findings revealed that IBs: Demand for Approval; High Self Expectation; Blame Proneness; Frustration Reaction; Emotional Irresponsibility; Anxious Overconcern; Problem Avoidance; Dependency; Helplessness for Change and Perfectionism are related to depressive symptoms. Further if these irrational beliefs are questioned and later changed then it may help in the reduction of the depressive symptoms especially among adolescents. The rational and realistic wants developed by unconditioned self-acceptance and unconditional acceptance of others, influence the development of positive mental health. In addition teaching rational living techniques does help to develop better coping style. Educational programs need to be designed focusing especially on increasing the level of frustration tolerance and rational thinking which will minimize the probability of depressive symptoms among adolescents.

Limitations and Suggestions

The present research included 1000 adolescents and focused mainly on subjects from upper (14.1%), middle (58.4%) socio economic classes and very few subjects (1.4%) belonged to lower socio economic class as 26.1 percent of participants did not report their income. Future investigations need to include subjects from the lower socioeconomic class in a larger proportion for a balanced and better representation. Furthermore, a bilingual sample was taken, with English as a medium of instruction in their educational institutions. No subject was included from Urdu medium of instruction because the assessment tools which were used to assess them were available only in English language. Therefore, it highlights the need to develop our own indigenous tools, which should be culture free and in Urdu language. Furthermore, other reasons to develop and maintain the symptoms of depression need to be focused as present study focused on depression and irrational beliefs. For future investigations cross sectional research can be conducted with all age groups residing in rural/urban communities. Moreover, other demographic variables such as employment, marital status, drugs, self esteem and religion can also be taken into account, which would further explore a comprehensive picture of factors predicting depression among Pakistani adolescent.

In future, similar research needs to be conducted on a more representative and proportionate sample from lower-middle and lower class. Tools used in the present study were available in English language only, and as English medium schools are mostly expensive that may be out of reach for a low middle class person, results of the study cannot be generalized because only English medium schools were included. Very low percentage of children from low SES were reported. Furthermore, the medium of instruction, socioeconomic status and social comparisons do effect the belief system of the individuals. Therefore, it is suggested that the future studies may include low socioeconomic class and may translate and adapt the measuring tools in Urdu language which may help in the generalizations of the findings. It is also suggested that illiterate or less educated subjects should also be included as the Population Census reports the literacy rate of Pakistani population is 44% (Rahman, 2004).

Awareness programs can be introduced in the regular curriculum of educational institutions with emphasis on experiential learning and tutorial groups. More personalized teaching with smaller class size should be practiced. Educational institutions may also provide counseling services and focus more on the enhancement of rational thinking of the pupils. Furthermore, family involvement should be emphasized and parents must emulate what they profess in order to reduce cognitive dissonance.

However, further research needs to be conducted in Pakistan to explore more variables, which may be instigating irrational beliefs among adolescents.

References

- Ali, W. (2001). Gender and depression. *Journal of the College of Physicians and Surgeons, Pakistan*, 11, 246-252.
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Beck depression inventory-II* (2nd ed.). USA: The Psychological Corporation.
- Bernard, M. E., & Joyce, M. R. (1984). *Rational emotive therapy with children and adolescents*. New York: John Wiley Press.
- Burnett, P. C. (1995). Irrational beliefs and self esteem: Predictors of depressive symptoms among children. *Journal of Rational Emotive Behavior Therapy*, 13, 193-201.

- Calvete, E., & Cardenoso, O. (2005). Gender differences in cognitive vulnerability to depression and behavior problems in adolescents. *Journal of Abnormal Child Psychology*, 33(2), 179-192.
- Depression can be avoided by following teachings of Islam. (2004, March 1st). *The News*, p.2.
- Dryden, W. (1984). *Rational emotive therapy: Fundamental and innovations*. Australia: Croom Helm Ltd.
- Ellis, A. (1973). *Humanistic psychotherapy*. New York: Mc Graw Hill Book Company.
- Ellis, A., & Bernard, M. E. (1985). *Clinical applications of rational emotive therapy*. New York: Plenum Publishing Corporation.
- Ellis, A., & Harper, R. A. (1961). *A new guide to rational living*. USA: Englewood Cliffs N. J. Prentice Hall.
- Ellis, A., & MacLaren, C. (1998). *Rational emotive behavior therapy: A therapist's guide* (p.41). USA: Impact Publishers, Inc.
- Erickson, C. D., Horan, J. J., & Hackett, G. (1991). *On thinking and feeling bad: Do client problems derive from a common irrationality or specific irrational beliefs?* Retrieved March 28, 2002, from <http://seamonkey.ed.asu.edu/~horan/d-ce-apa.htm>
- George, D., & Mallery, T. (1999). *SPSS for windows step by step: A simple guide and reference* (10th ed.). London: Microsoft, Inc.
- Haley, G. M. T., Fine, S., Marriage, K., Moretti, M. M., & Freeman, R. J. (1985). Cognitive bias and depression in psychiatrically disturbed children and adolescents. *Journal of Consulting and Clinical Psychology*, 53, 535-537.
- Hammond, W. A. & Romney, D. M. (1995). Cognitive factors contributing to adolescent depression. *Journal of Youth and Adolescence*, 24, 667-887.
- Harrington, R., Fudge, H. Rutter, M., Pickles, A., & Hill, J. (1990). Adult outcomes of childhood and adolescent depression. *Archives of General Psychiatry*, 47, 465-473.
- Jones, R. C. (1969). A factored measure of Ellis's irrational belief system with personality and maladjustment correlates [Abstract]. *Dissertation Abstracts International*, 69, 6443.
- Kandel, D. B., & Davis, M. (1986). Adult sequelae of adolescent depressive symptoms. *Archives of General Psychiatry*, 43, 255-262.
- Kirkland, E. (2000). Understanding important signs of depression. *Business Journal*, 22, 1-2.
- Koestner, R., Zuckerman, M., & Olsson, J. (1990). Attributional style, comparison focus of praise, and intrinsic motivation. *Journal of Research in Personality*, 24, 87-100.
- Kovacs, M., Feinberg, T. L., Crouse-Novak, M. C., Paulauskas, S. L., Pollock, M., & Finkelstein, R. (1984). Depressive disorders in childhood. *Archives of General Psychiatry*, 41, 643-649.
- Kovalski, T. M., & Horan, J. J. (1998). The effect of internet based cognitive restructuring on the irrational career beliefs of the adolescent girls. Retrieved January 18, 2002, from <http://monkey.ed.asu.edu/~horan/d-tk-apa98.htm>
- Lapouse, R. (1966). The epidemiology of behavior disorders in children. *American Journal of Diseases of Children*, 111, 594-599.
- Lefkowitz, M. M., & Burton, N. (1978). Childhood depression: A critique of the concept. *Psychological Bulletin*, 85, 716-726.
- Maltz, M., & Sommer, B. (2000). *Psychocybernetics* (p.13). New York: MJF Books.
- Marcotte, D. (1996). Irrational beliefs and depression in adolescence. *Adolescence*, 31, 935-954. Retrieved September 6, 2001 from PerAbs database.
- Marcotte, M., Laurier, F., Pierre, P., & Myra, P. (2002). Gender difference in depressive symptoms during adolescence: the role of gendertyped characteristics, Self esteem, body image, stressful life events and pubertal status. *Journal of Emotional and Behavioral Disorders*, 10, 29.
- Marton, P., Churchard, M., & Kutcher, S. (1993). Cognitive distortion in depressed adolescents. *Journal of Psychiatry and Neurosciences*, 18, 103-107.

- Nielson, D. M., Horan, J. J., Keen, B., Peter, C. C., Ceperich, S. D., & Ostlund, D. (1996). An attempt to improve self esteem by modifying specific irrational beliefs. *Journal of Cognitive Psychotherapy*, 10, 137-149.
- National Institute of Mental Health. (2000). *Psychotherapies: Psychoanalysis, humanistic therapies, behavior therapies, cognitive therapies*. Retrieved July 11, 2001, from <http://inst.santafe.cc.fl.us/~mwehr/studygm/mod9.htm# cognitive therapiesexample, rational-emotive>
- National Mental Health Association. (2001). *Depression*. Retrieved April 22, 2002, from <http://www.nmha.org/infoctr/factsheets/23.cfm>
- Oei, T. P. S., Etchells, A. C., & Free, M. L. (1994). The relationship between irrational beliefs and depressed mood in clinically depressed out patients. *Psychologia International Journal of Psychology*, 37, 219-226.
- Persons, J. B., & Rao, P. A. (1985). Longitudinal study of cognitions, life events and depression in psychiatric in-patients. *Journal of Abnormal Psychology*, 94, 51-63.
- Poulakis, Z., & Wertheim, E. H. (1993). Relationships among dysfunctional cognitions, depressive symptoms, and bulimic tendencies. *Cognitive Therapy and Research*, 17, 549-559.
- Rahman, N. K., Dawood, S., & Saleem, S. (2000). *Perception of self image by Pakistani adolescence*. Unpublished Manuscript. Centre for Clinical Psychology, University of the Punjab, Lahore, Pakistan.
- Rahman, N. K. (2004). Psychology in Pakistan. In M. J. Stevens, & D. Wedding (Eds.). *Handbook of international psychology*. New York: Taylor & Francis Books, Inc.
- Reber, A. S. (Ed.). (1995). *Penguin dictionary of psychology* (2nd ed.). New York: Penguin Books.
- Santrock, J. W. (1998). *Adolescence* (7th ed.). Boston: Mc Graw Hill.
- Schacter, J. E., & Romano, B. A. (1993). Theories of development and etiology. In H. S. Koplewicz, & E. Klass (Eds.). *Depression in children and adolescence*. (p.9-15) London: Harwood Academic Publishers.
- Shepherd, P. (1999). *Rational thinking*. Retrieved May 22, 2001, from <http://www.Trans4mind.com/transformation/transform2.11.htm>
- Turner, L. A. (1998). *The relationship of attributional beliefs to self-esteem*. Retrieved July 2, 2001, from http://www.findarticles.com/m2248/n130_v33/21072049/p1/article.jhtml
- Werry, J. S., & Quay, H. C. (1971). The prevalence of behavior symptoms in younger elementary school children. *American Journal of Orthopsychiatry*, 41, 136-143.

CENTRE FOR CLINICAL PSYCHOLOGY EXISTING FACILITIES

Academic Programs

Advanced Diploma in Clinical Psychology (A.D.C.P): The Centre organizes an Advanced Diploma in Clinical Psychology Program of fifteen months duration for post-master's Psychology students, spread over three terms, each of five months duration. The programme includes an in-depth supervised training in Psychological and Neuropsychological Assessment; Rational Emotive Behavior Therapy; Gestalt Therapy; Behavior Therapy; Ethical Issues in Clinical Psychology; Neuropsychology; Psychopharmacology; Speech Therapy; Special Education; Child Counseling; Rehabilitation of Schizophrenics and Drug Addicts; and a Research Project. Besides all this Personal Growth of Trainees is emphasized at Individual and Group Levels; The Institute runs an Internship Programme for its Trainees in collaboration with Psychiatric Units at Mayo Hospital, Lahore (Adult & Child); Children's Hospital (Child); Sir Ganga Ram Hospital, Lahore (Adult); Services Hospital, (Adult) and Government Hospital for Psychiatric Diseases (GHPD: Mental Hospital), Lahore (Adult Schizophrenics). The trainees undergo Internship Training under the supervision of experienced Clinical Psychologists from the respective departments and also get supervised training at the Centre where they see clients both for assessment and treatment of psychopathologies in a non-medical setting.

M.Phil in Clinical Psychology: The aims of the course are to enable trainees to apply the methods and findings of Psychology to both Practical and Research work. The course predominantly focuses on Cognitive, Behavioural, Gestalt and Neuropsychological approaches. The qualification obtained is an M.Phil Degree in Clinical Psychology. The minimum qualification for entry to the course is M.Sc. Applied Psychology/Psychology from any University. Applicants will be admitted on the basis of their performance in M.Sc, Admission (Written) Test and Interview. The basic focus of the programme is to give an in depth theoretical and practical knowledge in the area of Clinical Psychology.

PhD in Clinical Psychology: The basic focus of the programme is to give an in depth theoretical and practical knowledge in the domain of Research in Clinical Psychology. The entry requirement are same as of Mphil in Clinical Psychology Program.

B.Sc. (Hons.) in Clinical Psychology: The Institute organizes a B.Sc. (Hons.) Programme of Four Years duration for undergraduate students in Clinical Psychology, spread over eight terms, each of five months duration. The programme includes an in-depth supervised training in General Psychology, Applied Psychology, Abnormal and Clinical Psychology, Psychological Assessment and Therapeutic Interventions. The students will get an in-depth supervised training in their respective chosen specialized areas and will conduct a one year Research Project. The Centre runs its Internship Programme for the Trainees with the collaboration of Psychiatric Units at best Teaching Hospitals of Lahore. The Trainees undergo Internship Training under the supervision of experienced Clinical Psychologists from the respective Psychiatry Departments and also get supervised training at the Centre where they see clients both for assessment and treatment of psychopathologies in a non-medical setting. This program is first of its kind in Pakistan, which provides an in depth, practical knowledge of Clinical Psychology that is the need of the time.

Research Cell: Research is the backbone of any subject studied at postgraduate level. Although there are only two research officers in the Centre are working on two HEC funded projects only. Centre's students have developed valuable research projects such as adaptation and development of indigenous psychological tests, prevalence studies of different disorders, research on social issues and outcome studies. There are many collaborative and funded research projects in progress at the Centre at National and International level. Moreover, Centre is also publishing a journal. Considering the level of problems in Pakistan and very little research on issues of social significance and health, Centre is planning to further strengthen the research cell is a need of the time. In addition to that through the linkages programme of the Higher Education Commission research will be possible at cross cultural level.

Clinical Services

Low Cost Clinical Services at the Centre: The Centre has a well-established in-house “**PSYCHOLOGICAL TREATMENT CENTRE**” which offers **Individual and Group Therapy** for adults and children with the problems of:

- Depression
- Eating Disorders
- Sexual Dysfunctions
- Low Confidence Level
- Anxiety and Stress
- Dyslexia and Aphasia
- Fears and Phobias
- Obsessions and Compulsions
- Insomnia
- Brain Damage
- Career Issues
- Study and Work-blocks

The Centre also provides Assessment Facility for:

- Psycho-diagnostic Testing
- Neuro-psychological Testing
- Ability Testing
- Personality Testing

At the Centre the services of qualified Faculty Members / Consultants are extended to benefit Individuals and Institutions. The Centre offers Psychological Services to referrals from Doctors, Psychiatric Institutions, Schools and the Walk-in Clients. Service charges are subsidized and special consideration is duly given to students and other deserving cases. Contact #: 9231147, 0333-4225020

Free Hotline / Help Line Service: The Centre has started a Free Hot Line / Help Line Services for Crisis Intervention to deal with Stress; Trauma and Emotional Psychological Problems by trained Clinical Psychologists at the Centre for Clinical Psychology between 9.00 a.m. 5.00 p.m. at the numbers: 9231147, and Mobile number: 0333-4225020.

Community Mental Health Services for Rehabilitation of Schizophrenic at Punjab Institute of Mental Health, Lahore: The Centre offers a Self Finance Rehabilitation Programme for the Female Schizophrenic Patients at Punjab Institute of Mental Health (Mental Hospital) since March, 2000. The focus is to teach Self-Help Skills, Social Skills, Occupational and Vocational Skills conducted by the Trainees of the Centre under the Supervision of Trained Clinical Psychologists. 250 patients have been rehabilitated till date. Recently the project of Half Way House is started. Where the stable patients are given home like environment. They have also given occupational therapy so they would be able to stand on their on feet. This project has been started as the pilot project for one year, and later on it will be extended and will be carried out on a regular bases.

Speech Therapy Programme: The Speech Therapy Programme offers both Psychological Assessment and Treatment Programmes for Speech Problems of **Fluency, Articulation and Voice disorders**. Speech Therapy is based on up to-date Approaches and Educational Programmes which not only improve the Speech Abilities but also improve the Confidence and Social Skills of the Client. The Treatment Programme is based on both Individual and Group Sessions on a Weekly Basis. The Programme is managed by Trainees of Speech Therapy under the Supervision of Professional Speech Therapists / Clinical Psychologists. These Professionals are trained in the above mentioned areas and are responsible and experienced. They help the people suffering from Speech Problems by improving their Stammering/Fluency/Articulation/Quality of Speech. This in turn helps in improving the functionality, daily interactions and Work/School Performance.

Family Therapy is also included in the Programme when required.

Eligibility: This programme is open to children of ages 3 years and older and Adults with Speech Problems: Stammering, Articulation or Voice Disorders. Also Speech Rehabilitation is offered for the Physical Disabilities caused by strokes, paralysis of the face and/ or other diseases.

Self-Supporting Programme for Slow Learners: The Programme offers both Psychological Assessment and a Treatment Programme which uses up-to-date Approaches and Educational Programmes in developing Self-Help Skills; Language Skills; Motor Skills; Cognitive Abilities and Social Skills with Professional Clinical Psychologists. The Working Schedule provides both Individual and Group Services. These Professionals are trained in the above mentioned areas. They are responsible and experienced. They help the Children with Special Needs to improve their functionality, overcome problematic behaviors and become more Independent. Focus is to maximize their potential. Family Therapy is also a part of the Training Programme. This Programme helps in acquiring Self Management Skills and it teaches the Child to:

- Exhibit more Initiative and Self-Management Skills in Classroom and at Home.
- Spend more time in Constructive Tasks set by the Psychologist.
- Demonstrate better Awareness of Rules and Routine.
- Spend less time in Inappropriate and Disruptive Behaviors.

Eligibility: This Programme is open to the children from Age 5 years- 19 years with Learning Disabilities, Behavior Problems, Autism, Mental Retardation and Attention Deficit Hyperactivity Disorder (ADHD).

Self-supporting Programme for Autistic Children: A Self Supporting Programme for Children with Autism was introduced in October 2002. This is an individualized educational and behavioral programme run under the supervision of trained Clinical Psychologists. The timings of the programme are from 2.00 pm to 5.00 pm from Monday till Friday.

Based on the Behavioral Methods developed by Dr. Ivar Lovass in 1987 for children with Autism, this programme helps the child

- To acquire self-monitoring skills.
- In reducing self-stimulatory and disruptive behaviors.
- To enhance communication skills.
- To spend more time in constructive tasks, such as following functional routines: working on adaptive and educational targets set by the Psychologist/ family member.

Eligibility: This Programme is open to the children from Age 3 years- 15 years with Autistic Spectrum Disorders.

Instructions to Authors

Manuscript Preparation

Authors should prepare manuscripts according to the Publication Manual of the American Psychological Association (5th ed.). All manuscripts must include an abstract containing a maximum of 150 words, typed on a separate sheet of paper and provide maximum of 5 key words. Instructions for typing (all copies must be double-spaced) and on preparing tables, figures, references, metrics, and abstracts are given in the APA Manual of Publications. Article length should not exceed 10-15 pages (25-30 manuscript pages) including the 150 words abstract. "Author/s of manuscript/s submitted to the Journal are expected to have available their data throughout the editorial review process".

Ethical Standards

Authors will be required to state in writing that they have complied with APA ethical standards in the treatment of their sample: human or animal, and to describe the details of treatment. A copy of the APA Ethical Principles may be obtained from APA website or from the office of Centre for Clinical Psychology, University of the Punjab, Lahore, Pakistan.

Brief Reports

Pakistan Journal of Professional Psychology: Research and Practice, also publishes brief reports on research and practice in psychology. An author who submits a brief report must agree not to submit the full report to another Journal of general circulation. Brief reports should not exceed four printed pages (about 10 manuscript pages), excluding the 150 words abstract.

Blind Review

The Journal will follow "Blind Review" method because the reviewers have agreed to participate in a blind reviewing system. Authors submitting manuscripts are requested to include with each copy of the manuscript a cover sheet that shows the title of the manuscript, the authors' name and institutional affiliation, the date the manuscript is submitted, and footnotes identifying the authors or his/her affiliation. The first page of the manuscript should omit the authors' name and affiliations but should include the title of the manuscript and the date it is submitted. Every effort should be made by the authors to see that the manuscript itself contains no clues of their identity.

Mailing the Manuscript

Manuscripts for articles and brief reports should be submitted in triplicate (hardcopies) and a soft copy on a disc and shall be sent to the Editor on e-mail address (centreforclinicalpsychology@yahoo.com). All hard copies should be typed on a paper of 90 gms in font 12 and should be readable. A dot matrix or unusual typeface is acceptable only if it is clear and legible. In addition to addresses and phone numbers, authors should also supply

electronic mail address and fax number if available, for potential use by the editorial office. Authors should keep a copy of the manuscript to guard against any loss. The Editor welcomes all incoming submissions to the Journal. Submissions that are accepted will be subsequently published.

Pakistan Journal of Professional Psychology: Research and Practice is an Annual publication of the Centre for Clinical Psychology, University of the Punjab, Quaid-e-Azam Campus, Lahore, Pakistan. This Journal welcomes articles on the application of Clinical / Counselling Psychology, including the scientific underpinnings of Clinical / Counselling Psychology and articles that present assessment, treatment, and practice implications of different therapeutic techniques are encouraged. Both data-based and theoretical articles on techniques and practices used in the application of Psychology are acceptable. Specifically, this journal is an appropriate place for articles on (a) state-of-the-art literature reviews of research on specific high-incidence disorders specifically written so as to draw out the implications for assessment and/or treatment; (b) research and theory on public policy as it affects the practice of Psychology; (c) current advances in applications from such fields as health psychology, community psychology, psychology of women, clinical neuropsychology, family psychology, psychology of ethnicity and culture, forensic psychology, industrial psychology and other areas; (d) standards of professional practice and delivery of services in a variety of contexts: such as private schools, special schools, hospitals, jails, recruitment centres, drug rehabilitation, industries, institutions, and other organizations; (e) education and training of professional clinical psychologists at the graduate level and in continuing education; and (f) clinical research and theory as they concern the interests of those in the practice of psychology. The journal also publishes brief reports on research or practice in professional psychology.

Manuscripts

The Editor will receive all submissions to the Journal. Submissions that are accepted will be published. Submit manuscripts in triplicate to the Editor, Dr. Nosheen K. Rahman, Director, Centre for Clinical Psychology, University of the Punjab, Quaid-e-Azam Campus, Lahore, Pakistan, according to the Instructions to Authors for this journal. Submission of papers to this journal will imply that they have not been previously published, and have not been submitted for publication elsewhere. The opinions and statements published are the responsibility of the authors, and such opinions and statements do not necessarily present the policies of the Centre for Clinical Psychology and/or the views of the Editor.

HANDBOOK OF INTERNATIONAL PSYCHOLOGY

Edited by
Michael J. Stevens and Danny Wedding

A valuable reference book in international psychology texts.

- This indispensable volume provides a comprehensive understanding of the discipline of psychology as it has evolved in different regions of the world
- It hopes to advance Western psychology from its individually based, parochial, and ethnocentric paradigm toward a more interlaced contextual variables that affect human behavior.
- It is unmatched in scope and coverage, as this text surveys psychology in 27 countries from 9 distinct regions across 6 continents.

Vital to contemporary psychologists in an increasingly global world, the text includes

- An overview of each country's psychology,
- The education and training of psychologists,
- The scope of psychological practice, and future challenges and prospects.
- An invaluable reference tool for researchers, practitioners, and students,
- The Handbook describes the new specialty of international psychology, identifies important international psychology organizations, forecasts the future of psychology worldwide, and offers readers who are accustomed to western perspectives a glimpse into psychologies that have different historical and cultural roots.
- To achieve this panoramic vista of psychology around the world, eminent psychologists Michael J. Stevens and Danny Wedding bring together leading international experts to write about the psychology of their country.

A valuable contribution has been made by Dr. Nosheen K. Rahman, Professor and Director of Centre for Clinical Psychology, University of the Punjab, Lahore, Pakistan. She has written a chapter on "Psychology in Pakistan" in this book the first time, the discipline of Psychology in Pakistan is covered in such a comprehensive manner. This chapter throws light on

- *The historical background of psychology and clinical psychology*
- *How Psychology and Clinical Psychology flourished in different educational institutions and organizations across the different cities, and difficulties faced in establishing these Educational Institutions.*
- *Education and training of clinical psychologists*
- *Scope of psychological practice in Pakistan.*
- *Future Challenges and prospects of clinical psychology and psychologists.*

This book is recommended as a valuable reference book to be included in the Psychology Courses taught in Pakistan and abroad.

