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change during treatment (Schwartz and Michelson, 1987).

The transfer of cognitive science methods to the study of clinical disorders is laudable and consistent with the general trend toward a "cognitive revolution" in the study of psychopathology (Coyne and Gotlib, 1983; Ingram, 1986) yet it is not without pitfalls. The explanation of the enduring experiences of patients is a distinct feature of cognitive theorists. Cognitions are the most important if not the causative agents of psychological dysfunction. Consequently, therapy should involve the utilization of cognitive techniques to produce psychological change (Beidal and Turner, 1986; Hoffman, 1984). While the results support cognitive techniques as an effective procedure in reducing the symptoms (Free and Oei, 1989), there is no indication whether the efficacy of cognitive therapies is due to the resulting change in cognitions (Oei, Duckham, and Free, 1989; Oei, Lim, and Young, 1989). On the basis of associating cognitive therapy with symptom reduction one cannot infer that either (a) cognitive theory has been validated or (b) that cognitions are of etiological importance (Rush, 1987).

The advocates of cognitive theories and therapies cannot regard alleviation of the symptoms as an evidence of support for cognitive models. For the purpose of assessing the validity of the cognitive models, it is essential to collect empirical evidence of cognitive change across the therapeutic intervention. It is important to adopt the methods of independent verification in an experimental design for measuring the improvement in the patients when they drift from the dysfunctional to the state of functional cognitions. It is, therefore, the intention of this paper to review the literature to evaluate whether there is sufficient empirical evidence to show that CBT supports the cognitive model of psychopathology.

Cognitive Models

Several cognitive theories sharing a common ground have developed in recent decades. Most of them were orginally designed as an explanation of depression, but later on enveloped other emotional disorders also. There are several theoretical models of cognitive theories of psychopathology. Ellis (1962), Beck (1976) and Meichenbaum (1977) have written extensively on cognitive approaches for the understanding and treatment of emotional disorders. There is an overlap in their theories and practical procedures . Seligman (1975) developed a theory of learned helplessness and Abramson et al., (1988) modified

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IS THERE ANY EVIDENCE OF COGNITIVE CHANGE AS A RESULT OF COGNITIVE BEHAVIOR THERAPY?

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ABSTRACT

The studies using Cognitive Behaviour Therapy (CBT) as a therapeutic intervention with patients of different diagnostic categories are examined. The reduction in the symptoms is misinterpreted by propagators of CBT as an evidence of cognitive change. The aim of this review is to see whether investigators are using methods of independent verifications (MOIV's) for appraising cognitive change as a result of therapy, in a scientific manner. The procedures used for measuring the empirical evidences of cognitive change are analyzed. Although CBT is effective in the reduction of symptoms, yet the empirical evidence of cognitive change is meagre as very few studies apply objective measures. Another aspect revealed by the review is that interventions other than cognitive can also lead to modification of cognitions.

Although the role of cognition in psychological disorders has been the subject of considerable research (Kendall and Hollon, 1979) little is known empirically about the process of cognitive change during psychotherapy (Oei, Duckham, and Free, 1989). The dearth of knowledge has been perpetuated by the limited availability of cognitive assessment techniques and by the absence of empirically based theoretical models to conceptualize the process of cognitive

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it by introducing the new concept of hopelessness. Bower (1981) has presented his theory based on associative network, which has been extended to depression. Clark, Slakovskis and Teasdale (Rachman and Maser, 1988) emphasize the role of idiosyncratic patterns of distorted thinking in different psychopathologies.

Irrespective of what cognitive models are stressing a central notion of all cognitive theories is that it is not event per se, but rather the persons' interpretation and evaluations of events that are responsible for the production of negative emotions, such as depression, anxiety, anger or sadness. The maladaptive evaluations stem from certain irrational beliefs and distorted thinking. The illogical thinking pattern affects the cognitive and affective aspects of a person. Cognitions are therefore the most important factor in influencing behavior. The cognitive models have devised a sequence through which a patient has to pass during therapy. The client is trained to recognize, and is encouraged to correct cognitive distortions. Different techniques used in the therapy alter the client's beliefs, self verbalizations and maladaptive interpretations of reality systematically. Modified cognitions lead to alteration in behavior.

The Cognitive Behavior Model

The term Cognitive Behavior Therapy encompasses treatments that attempt to change behavior by altering thoughts, interpretations, assumptions and strategies of responding. The fusion of cognitive and behavioral tehniques has lead to the emergence of CBT. They evolved out of dissatisfaction with stimulus-response explanations of behavior, and in response to research that has demonstrated the role of thought processes in controlling behavior. Another reason for recognizing the importance of cognitive processes in behavior change is that many problems requiring therapeutic interventions are themselves based on cognitions, e.g., self critical statements, obsessions (Kazdin, 1978). Therapeutic approaches derived somewhat independently, converged as their similarities were realized and as research began to support the basic assumptions of the influence of cognitive processes in ameliorating clinical problems.

Some investigators describe CBT as including any procedure that relies on internal components, including imagery, thought patterns and verbalizations (Meichenbaum, 1977), but this is a very broad definition. Other investigators tend to restrict CBT to procedures that rely upon thought processes (Beck,

1977). The following are the major techniques used by Cognitive Behavior therapists: self instructional training, problem solving, acquisition of coping skills, thought stopping, language behavior, stress inoculation, stimulus control and attribution therapy.

In the past there was a trend of characterizing a therapeutic approach in a way that distinguished it from other treatments of the time. Emphasis used to be on regarding behavior and cognitive modalities as in water tight compartments. Recently due to the eclectic approach even the cognitive and behavior methods are combined (Meichenbaum, 1977).

The tremendous success of CBT has led to its application for treating a variety of disorders such as depression (Taylor and Marshall, 1977; Zeiss, Lewinsohn and Munoz, 1979), phobias (Biran and Wilson, 1981; Emmelkamp and Mersch, 1982), unassertive behavior (Craighead, 1979, Jacob and Cochran, 1982) and alcohol addiction (Sanchez and Craig, 1980; Oei and Jackson, 1982, 1984). A number of reviews have examined the efficacy of CBT on depression (Free and Oei, 1989), anxiety disorders (Dush, Hurt and Schroeder, 1983; Miller and Berman, 1983; Latimer and Sweet, 1984), agoraphobia (Lamas and Oei, 1990). While these reviews have shown that various combinations of cognitive behavioral programmes are effective in producing behavior changes, yet these reviews have not examined the issue of cognitive change associated with behavioral improvement. It is important to examine the modifications in the cognitions as a result of the therapy.

The aim of the present review is to examine the evidence of cognitive change in patients as a result of cognitive or cognitive behavior therapy. For this purpose one hundred and twelve papers are selected (see Appendix). The selection criterion is to select studies which encompassed a broad spectrum of treatments, labelled as cognitive to therapies that explicitly combine cognitive and behavioral techniques. A detailed analysis is conducted for seeing whether the researches have used measures of independent verification. If yes, then the next question asked, is in how many cases the measures have demonstrated the evidence of cognitive change as a result of the treatment. The studies selected are directed toward treating the patients of various disorders categorized in the following groups,: depression, anxiety, anxiety disorders, psycho-physiological disorders, obesity, bulimia nervosa, smoking, physical ailments, psychological

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distress as a result of physical traumas, aggression and miscellaneous. Each group is examined to see whether there is evidence of cognitive change as a result of therapy. The detailed examination of these papers is summarized in Table 1.

The researches selected were conducted during the past decades till the year 1986. The journals from which they are selected are: British Journal of Clinical Psychology, Journal of Consulting and Clinical Psychology, Behavior Therapy and Experimental Psychiatry, Cognitive Therapy and Research, Behavior Therapy, Journal of Applied Behavior Analysis, Journal of Abnormal Psychology, European Journal of Behavior Analysis. One study is extracted from a book.

Depression

Nineteen papers aimed at treating depression are examined in this section (Baker and Wilson, 1985; Beach and O'Leary, 1986; Brown and Lewinsohn, 1984; Dunn, 1979; Fleming and Thornton, 1980; Fuchs and Rehm, 1977; Heiby, 1986; McLean and Hakstain, 1979; McKnight et. al., 1984; Rush et. al., 1977; Shaw, 1977; Steuer et. al., 1984; Taylor and Marshall, 1977; Teri and Lewinsohn, 1986; Zeiss et. al., 1979). The overall pjicture reflected by the outcome of these studies show Cognitive and Cognitive Behavior Therapy as powerful strategies for treating depression.

A detailed analysis of the above studies reveals Cognitive Behavior Therapy as the most effective treatment when compared to other modalities (Baker and Wilson, 1985; Brown and Lewinsohn, 1984; Heiby, 1986; McLean and Hakstain, 1979; McKnight et. al., 1984; Propst, 1980; Rehm et. al., 1979; Steuer et. al., 1984, Zeiss et. al., 1979). Cognitive therapy is effective when used purely (Rush et. al., 1977; Shaw, 1977) and when combined with medicine (Dunn, 1979), and behavioral techniques (Beach and O'Leary, 1986; Fleming and Thornton, 1980; Rabin et. al., 1984; Taylor and Marshall, 1977). In two papers Cognitive Behavior Therapy and Behavioral Therapy are equally effiective in reducing dysphoria (Reynolds and Coats, 1986; Teri and Lewinsohn, 1986). One study reflects behavior therapy outshining the cognitive approaches (Fuchs and Rehm, 1977).

Out of the nineteen studies reviewed five have used verifying instruments

(MOIV) for measuring cognitive change in the subjects (Table 1). Pleasant Events Schedule (Fleming and Thornton, 1980), Self Concept Test (McKnight et. al., 1984), and Irrational Belief Test (Rehm et. al., 1979) have demonstrated some chances of cognitive change in the patients who improved by Cognitive Behavior therapy. However, Dysfunctional Attitude Scale (Baker and Wilson, 1985) and Cognitive Events (Zeiss et. al., 1979) are not successful in unmasking empirical evidence of cognitive changes in the patients of depression who showed symptom reduction due to therapy.

Anxiety

Twenty two papers based on different aspects of anxiety are selected for this review paper. Six researches are aimed at treating test anxiety (Cooley and Spiegler, 1980; Holroyd, 1976; Kirkland and Hollandsworth, 1980; McCordick et. al., 1979; Meichenbaum, 1972; Van Der Ploeg-Stapert and Van Der Ploeg, 1986). Speech anxiety is the problem selected by another five researches (Fremouw and Harmatz, 1975; Freemouw and Zitter, 1978; Meichenbaum et. al., 1971; Thorpe et al., 1976; Weissberg, 1977).Four studies focus on treating simple anxiety (Kanter and Goldfried, 1979; Kim, 1980; Sharp and Forman, 1985; Woodward and Jones, 1980). Three studies are in the area of public speaking (Hayes and Marshall, 1984; Karst and Trexler, 1970; Trexler and Karst, 1972). A single study, each on communication anxiety (Glogower et. al., 1978), interpersonal anxiety (DiLoreto, 1971), presurgical anxiety (Wells et. al., 1986) and on social anxiety (Emmelkamp et. al., 1985).

RET as a cognitive orientation (Emmelkamp et. al., 1985; Karst and Trexler, 1970; Thorpe et. al., 1976) and in combination with behavioral techniques (Van Der Ploeg Stapert and Van Der Ploeg, 1986) is used with anxiety patients. Cognitive therapy has effectively reduced the symptoms of anxiety (Cooley and Spiegler, 1980; DiLoreto, 1971; Fremouw and Spiegler, 1980; DiLoreto, 1971; Fremouw and Harmatz, 1975; Glogower et. al., 1978; Holroyd, 1976; Meichenbaum et. al., 1971). In the rest of the studies Cognitive Behavior Therapy is successful in reducing the symptoms of anxiety, as reported by the patients.

As indicated by Table 1, Irrational Beliefs Test in one paper (Emmelkamp et. al., 1985) has revealed evidence of cognitive change in the subjects who received Cognitive Behavior Therapy and Behavior Therapy (exposure). It shows that maybe cognitive change is not a function of cognitive

modality only; other modalities like behavior can also alter thoughts.

Thought Stopping Survey Schedule and Thought Sampling questionnaires are used in one study (Hayes and Marshall, 1984), however no clear evidence of a cognitive change is reported. Furthermore the authors attributed improvement in the patients as an outcome of skills training programme (Table 1).

Adaptive Self-Statement Test (Kim, 1980), Cognitive Somatic Anxiety Questionnaire (Kirkland and Hollands worth, 1980) and Irrational Beliefs Test (Kanter and Goldfried, 1979; Trexler and Karst, 1972) have not revealed any evidence of cognitive change. The rest of the studies have not used any measure which could reflect modification in the cognitive processes of the subjects as the result of cognitive intervention.

Anxiety Disorders

The papers reviewed in this section are twenty-eight. Three studies are on panic disorder (Barlow et. al., 1984; Salkovskis et. al., 1986; Waddell et. al., 1984), eight on simple phobia (Chhabra and Fielding, 1985; D'Zurilla et. al., 1973; Jerremalm et. al., 1986; Marshall, 1985; Moses and Hollandsworth, 1985; Odom et. al., 1978; Ost, 1985; Rosenfarb and Hayes, 1984; Wein et. al., 1975), three on social phobia (Butler et. al., 1984; Emmelkamp, 1985; Jerremalm et. al., 1986), four on agoraphobia (Barlow et. al., 1984; Emmelkamp et. al., 1978; Emmelkamp, 1985; Himadi et. al., 1986); and nine on assertiveness (Alden et. al., 1978; Carmody, 1978; Craighead, 1979; Derry and Stone, 1979; Hammen et. al., 1980; Linehan et. al., 1979; McIntyre et. al., 1984; Thorpe, 1975; Wolfe and Fodor, 1977) are examined.

Generally Cognitive Behavior Therapy has effectively reduced the symptoms of panic, phobia, agoraphobia and assertiveness. Pure Cognitive Theraphy reduced the examination fear and behavioral avoidance (D'Zurilla et. al., 1973; Wein et. al., 1975). On the other hand Cognitive Therapy when combined with Self Instructional Training (Thorpe, 1975) and Behavior Therapy (Derry and Stone, 1979; Lineham et. al., 1979) enhanced assertiveness of the subjects. Pure R.E.T. (Wolfe and Fodor, 1977) and combined with behavioral rehearsal (Carmody, 1978) improved the assertiveness of the subjects. In another study R.E.T. combined with Self Instructional Training (Emmelkamp, 1985)

reduced the anxiety of social phobics. Behavior therapy combined with Self Instructional Training (Jerremalm et. al., 1986) has also reduced the symptoms of social phobics. In two studies (Alden et. al., 1978; Hammen et. al., 1980) Cognitive Behavior Therapy and Behavior Therapy are equally effective in treating assertiveness.

Seven studies have used measures for verifying evidence of cognitive change as reflected by the Table 1 . Irrational Beliefs Test (Emmelkamp, 1985) has revealed cognitive change in the case of social phobics. In another study (Emmelkamp, 1985) the Irrational Beliefs Test is used at the pretest level only, however a retrospective method of thought listing is used as a measure which shows some chances of cognitive change, although it is not related to the therapeutic outcome. In Jerremalm et. al's (1986) paper, the chances of cognitive alteration is revealed by author constructed tests. Self Statement Test (McIntyre et. al., 1984) has revealed some chances of cognitive change in one study.

In some papers the Irrational Beliefs Test (Alden et. al., 1979; Derry and Stone, 1979), Assertive Self Statement (Derry and Stone, 1979) and Dysfunctional Attitude Scale (Hammen et. al., 1980) have not detected cognitive change in the subjects as a result of therapy. As the other studies have not applied any verification process, therefore any evidence of cognitive modification in them is not highlighted.

Psychophysiological disorders

Three papers, aimed at migraine headaches (Lake et. al., 1979), tension headaches (Holroyd et. al., 1977) and duodenal ulcer (Brooks and Richardson, 1980) fall in this catgegory. The results show that cognitive therapy is effective in reducing the tension headaches and the duodenal ulcer. The patients of migraine headaches are more effectively treated by biofeedback. There is no evidence of cognitive change in any study (Table 1).

Obesity

Cognitive behavior therapy is successfully used for the treatment of obesity in seven studies (Collins et. al., 1986; Kirschenbaum et. al., 1984; Kirschenbaum et. al., 1985; Perri et. al., 1986; Stalonas and Kirschenbaum, 1985; Wadden et. al., 1984; Wadden and Stunkard, 1986). While the efficacy of cognitive

behavior therapy is demonstrated by these studies, yet the process of cognitive change if there is any, is not revealed.

Bulimia Nervosa

There are six papers aimed at treating Bulimia Nervosa by cognitive behavior therapy (Fairburn et. al., 1986; Kirkley et. al., 1985; Ordman and Kirschenbaum, 1985; Rossiter and Wilson, 1985; Wilson et al., 1986; Yates and Sambrailo, 1984). The studies revealed that cognitive behavior therapy reduced the symptoms of bulimia nervosa. Furthermore, in one study (Yates and Sambrailo, 1984) the secondary features of anxiety and depression are also reduced. Unfortunately the researchers have not made any attempt for measuring cognitive change. Therefore there is no evidence that change in cognitions leads to the alleviation of bulimia nervosa symptoms.

Smoking

Six studies directed toward treating smoking behavior are examined.Cognitive behavior therapy has demonstrated reduction in smoking behavior in all of the studies (Baer et. al., 1986; Brown et. al., 1984; Killen et. al., 1984; McIntyre - Kingsolver et. al ., 1986; Mermelstein et. al., 1986; Nicki et. al., 1984). The research designs have not included a measure for the appraisal of cognitive change as a result of cognitive behavior therapy. There is no evidence that reduction in smoking behavior is a result of cognitive change (Table 1).

The Physical Ailments

The number of studies reviewed in this section is six. These studies are based on treating the patients of pulmonary disease (Atkins et. al., 1984), chronic pain (Moore and Charey, 1985), cancer management (Telch and Telch, 1986), cardiac catheterization (Kendall et. al., 1979), mysfascial pain (Stenn et. al., 1979) and irritable bowel syndrome (Bennett and Wilkinson, 1985). In all the above studies, cognitive behavior therapy is effective in enhancing the coping skills of the patients as revealed by the outcome of the studies. Yet there is no proof that the improved coping skills of the physical patients is a result of cognitive modification . There is no scientific evidence that cognitive behavior therapy leads to rational thinking.

Psychological Distress as a Result of Physical Traumas

Three studies selected for this section are based on patients who have gone through physical traumas. The topics researched on are herpes (Drot et. al., 1986), mastectomy (Tarrier and Maguire, 1984) and hysterectomy (Young and Humphrey, 1984). Different variations of cognitive behavior therapy reduced the symptoms of psychological distress. The outcome of the studies indicate that the therapy reduced the anxiety and enhanced the psychological adjustment of the patients. The studies have not used measures of independent verification, therefore there is no empirical evidence of any cognitive change.

Aggression

Two groups of investigators have treated the problems of aggression. Cognitive behavioral anger management programme is successful in reducing the anger problems of the patients (Hazaleus and Deffenbacker, 1986). In another study (Feindler et. al., 1986) aggression is controlled effectively by a cognitive behavior therapy package including self instructional training. However there is no evidence of any cognitive change in the subjects as no measure was applied for this purpose.

Miscellaneous

Ten miscellaneous papers are examined. The aspects focussed on in these papers are neurosis and psychosis (Ellis, 1957), stuttering (Moleski and Tosi, 1976), Type A behavior (Jenni and Wollersheim, 1979), emotional disorders (Lipsky et. al., 1980), stress management (Wernick, 1984), male sexual dysfunction (Evergerd and Dekker, 1985), marital therapy (Baucom and Lester, 1986), tinnitus (Jakes et. al., 1986), clinical disorders (Persons and Burns, 1985) and bipolar affective disorder (Cochran, 1984).

Cognitive and cognitive behavioral therapy highlight positive changes in the subjects. According to the Table 1, three studies have used measures for independent verification. Irrational Beliefs Test and Relationship Belief Inventory detected some cognitive changes (Baucom and Lester, 1986). However in this study it is not possible to trace out whether the cognitive change is the result of behavior modification techniques or the combination of behavior modification techniques with cognitive behavior therapy.

Daily records of dysfunctional thoughts throw light on some cognitive changes (Persons and Burns, 1985), while the Idea Inventory could not measure any cognitive change (Lipsky et. al., 1980). The rest of the studies have not used any method for independent verification, therefore there is no proof of cognitive alterations.

Summary and Conclusions

The goal of the present review is to examine the evidence of cognitive change as a result of CT or CBT. The cognitive model of psychopathology explains psychological disorders as a result of dysfunctional schemas and irrational beliefs. Cognitive reviews claim that cognitive or cognitive-behavior therapy brings about behavioral changes through changing the belief system and the thought patterns. Researches have consistently misinterpreted the symptom allevation as evidence for supporting cognitive theories. The symptomatic improvement due to cognitive methods, in contrast to other psychotherapies provides evidence of treatment effects only. It intimates nothing about the process by which cognitive change occurs . In order to investigate the cognitive change which occurs as a result of CT or CBT, cognitions must be measured.

The present paper reviews one hundred and twelve papers. CBT or CT has been more powerful as compared to other therapies in the symptom reduction of the patients. The alleviation of symptoms throws light on the effectiveness of the treatment packages, but does not indicate the process of cognitive change.

As shown in Table 1, twenty two (19.64%) researches utilized a measure (MOIV) in their investigations. Nine studies (8.03%) as indicated in Table 1, reflect chances of cognitive change (Baker and Wilson, 1985; Baucom and Lester, 1986; Emmelkamp et al., 1985; Hayes and Marshall, 1984; Jerremalm et. al., 1986; McIntyre et. al., 1984; McKnight et. al., 1984; Persons and Burns, 1985; Rehm et. al., 1979). Emmelkamp et al. (1985) used Irrational Beliefs Test at the pretesting level only, and the cognitive change in this study is not related to the therapeutic outcome. In another study (Hayes and Marshall, 1984) there is some indication of cognitive change but it is related to the outcome of a skills training programme. Another study reveals that maybe some cognitive changes have occurred (Baucom and Lester, 1986) but it is not clear whether

CBT combined with behavior modification or pure behavior modification caused it.

Eleven studies (9.82%) as shown in Table 1 failed in detecting evidence of cognitive change (Alden et. al., 1978; Derry and Stone, 1979; Fleming and Thornton, 1980; Hammen et. al., 1980; Kirkland and Hollandsworth, 1980; Lake et. al., 1979; Lipsky et. al., 1980; Trexler and Karst, 1972; Zeiss et. al., 1979). This reflects that treatment was been successful in changing the schemas of the patients. In Lake et. al's (1979) study Irrational Beliefs Test showed cognitive change in all the groups of subjects, including the control, making interpretation meaningless.

Evidence of cognitive change is strongly supported by two (1.78%) studies (Table 1) . The change in the subjects' schemas appear to be a result of therapeutic intervention. In one study (Emmelkamp et. al., 1985) the investigators were not able to link the cognitive change to the cause as there is some confusion whether CBT or BT leads to the change in the thinking of the subjects.

The review indicates that a very small percentage of studies aimed at uncovering empirical evidence of cognitive change with the help of measures of independent verification. Out of these limited number of studies the evidence of cognitive change is meagre. It is difficult to pinpoint the component of the therapy package which brought about a change in the cognitions of the subjects. On the basis of the papers reviewed, it is impossible to specify whether the behavioral or cognitive component of CBT is responsible for cognitive change. It seems that cognitive restructuring can occur even by therapies other than cognitive, regardless of the therapeutic orientation or process. Perhaps cognitive and behavioral interventions are equally capable of changing cognitions. With the possibly equal capability of behavior therapy in changing irrational thinking we are unable to credit the cognitive treatment component of CBT with a superior role in changing irrational beliefs.

The aim of CBT, in accordance with cognitive theories is to restructure cognitions and challenge irrational beliefs. The change in irrational cognitions will be responsible for changes in behavior. Consequently, proponents of CBT have been convinced that studies demonstrating efficacy of CBT as a treatment, support the cognitive model. However our evidence contradicts this notion. We do not dispute that CBT is efficacious as a treatment method; we do call

into question, however, the evidence to support cognitive theories based on the cognitive model of pathology and treatment.

CBT may be efficacious as a treatment, but which part of CBT packages is responsible for cognitive change is not clear. Treatment outcome is not sufficient evidence to support cognitive theories. The precise role of cognitive therapy in psychotherapy is somewhat enigmatic.

Hence, it appears from the literature review of studies conducted in the past decades that CBT is an efficacious treatment for general psychological problems. Yet, there is a scarcity of empirical evidence of cognitive change as a result of CBT which would support the cognitive model of psychopathology. More stringently designed studies focusing on cognitive change measured by the means of valid instruments are needed in future.

REFERENCES

Abramson, L.Y., Metalsky, G.I., and Alloy L.B. (1988). The hopelessness theory of depression: Does the research test the theory ? In L.Y. Abramson(Ed) Social Cognition and Clinical Psychology: A Synthesis. New York: Guilford.

Beck, A.T. (1977) . Cognitive Therapy: Nature and Relation to Behavior Therapy. Behavior Therapy, 1, 184-200.

Beck, A.T. (1976). Cognitive Therapy and Emotional Disorders. New York: International University Press.

Beck, A.T., Rush, A.J., Shaw, B.F., and Emery, G. (1979) Cognitive Therapy of Depression. New York: Guilford Press.

Beidal, D.B., and Turner, S.M. (1986) . A critique of the theoretical bases of cognitive-behavioral theories and therapy. Clinical Psychology Review, 6, 177-197.

Biran, M., and Wilson, G.T. (1981) . Treatment of phobic disorders using cognitive and exposure methods: A self-efficacy analysis. Jounal of Consulting and Clinical Psychology, 49, 806-899.

Bower, G.H. (1981) Mood and memory. American Psychologist, 36, 129-148.

Craighead, L.W. (1979). Self-instructional training for assertive - refusal behavior. Behavior Therapy, 10, 529-542.

Coyne, J.C., and Gotlib, I.H. (1983). The role of cognition in depression: A

critical appraisal. Psychological Bulletin, 94, 472-505.
Dush, D.M., Hurt, M.L., and Schroeder, H. (1983). Self-statement modification with adults: A meta-analysis. Psychological Bulletin, 94(3), 408-422.
Ellis, A. (1962) Reason and Emotion in Psychotherapy. New York: Lyle Stuart.
Emmelkamp, P.M.G., and Mersch, P.P. (1982). Cognition and exposure in invivo in the treatment of agoraphobia: short-term and delayed effects. Cognitive Therapy Research, 6, 77-88.
Free, M., and Oei, T.P.S. (1989) . Biological and psychological process in the treatment and maintenance of depression. Clinical Psychology Review, 9, 633-688.
Hoffman, N. (1984) . Cognitive Therapy: Introduction to the subject. In N. Hoffman (Ed.), Foundations of Cognitive Therapy. New York: Plenum.
Ingram, R.E. (1986). Information Processing Approaches to Clinical Psychology. New York: Academic Press.
Jacob, M.K., and Cochran, S.D. (1982) . The effects of cognitive restructuring on assertive behavior. Cognitive Therapy Research, 1, 121-133.
Kazdin, A.E. (1978) . History of Behavior Modification, Experimental Foundations of Contemporary Research. Baltimore University Park Press, p.307.
Kendall, P.C., and Hollon, S.D. (1979). Cognitive-behavioral interventions: Overview and current status. In D.C. Kendall and S.D. Hollon (Eds), Cognitive-Behavioral Interventions: Theory, Research, and Procedures. New York: Academic.
Latimer, P.R., and Sweet, A.A. (1984). Cognitive versus Behavioral Procedures in Cognitive-Behavior Therapy: A critical review of the evidence. Journal of Behavioral Therapy and Experimental Psychiatry, 15(1), 9-22.
Lamas, M., and Oei, T.P.S.(1990). The efficacy of cognitive behavior therapy and cognitive processes in the treatment of panic disorder with agoraphobia. Manuscript submitted.
Meichenbaum, D.H. (1977) . Cognitive Behavior Modification: An Integrative Approach. New York: Plenum Press.
Miller, R.C., and Berman, J.C. (1983) . The efficacy of cognitive behavior therapies: A quantitative review of the research evidence. Psychological Bulletin, 94(1), 39-53.
Oei, T.P.S., Duckham, S., and Free, M. (1989). Does Cognitive Behaviour Therapy Support Cognitive Models of Depression? Behaviour Change, 6,70-75.
Oei, T.P.S., Lim, B., Young, R.M.(1989). The Efficacy of Cognitive Behavior

Therapy in the Treatment of Problem Drinking. National Drug and Alcohol Research Centre. University of New South Wales, Monograph, 7, 13-25.

Oei, T.P.S., and Jackson, P.R. (1982). Social skills and cognitive behavioral approaches to the treatment of problem drinking. Journal of Studies on Alcohol, 43(5), 532-547.

Oei, T.P.S., and Jackson, P.P. (1984). Some effective therapeutic factors in group cognitive-behavioral therapy with problem drinkers. Journal of Studies in Alcohol, 45,(2), 119-123.

Rachman, S., and Maser, J.D. (1988). Panic: Psychological Perspectives. Lawrence Erlbaum Associates.

Rush, A.J. (1987). Measurement of the Cognitive Aspects of Depression. In Marsella, A.J., Hirschfeld, R.M.A., Katz, M.M.(Eds.), The Measurement of Depression, New York: The Guilford Press, p.267.

Sanchez and Craig, M. (1980). Random assignment to abstinence or controlled drinking in a cognitive-behavioral program: Short-term effects on drinking behavior. Addictive Behaviors, 5, 35-39.

Schwartz, R.M., and Michelson, L. (1987) . States of Mind Model: Cognitive Balance in the Treatment of Agoraphobia. Journal of Consulting and Clinical Psychology, Vol. 55, No. 4, 557-65.

Seligman, M.E.P. (1975). Depression and learned helplessness. In H.M.Van Praag (Ed.). Research in Neurosis, 72-107. Utrecht, Netherlands: Bohn, Scheltema and Holkema.

Taylor, F.G., and Marshall, W.L. (1977).Experimental analysis of a cognitive-behavioral therapy for depression. Cognitive Therapy and Research, 1, 59-79.

Zeiss, A.M., Lewinsohn, P.M., and Munoz, R.F. (1979). Non specific improvement effects in depression using interpersonal skills training, pleasant activity schedules, or cognitive training. Journal of Consulting and Clinical Psychology, 47, 427-439.

APPENDIX

Studies Included in the Review

Alden, L., Safran, J., and Weideman, R.A. (1978). Comparison of cognitive and skills trainings: Strategies in the treatment of unassertive clients. Behavior Therapy, 9, 843-846.

Atkins, C.J., Kaplan, R.M., Timms, R.M., Reinsch, S., and Lofback, K. (1984). Behavioral exercise programs in the management of chronic obstructive pulmonary disease. Journal of Consulting and Clinical Psychology, 52, 591-603.

Baker, A.L., and Wilson, P.H. (1985). Cognitive-behavior therapy for depression: the effects of booster sessions on relapse. Behavior Therapy, 16, 335-344.

Baer, J.S., Holt, C.S., and Lichtenstein, E. (1986). Self-efficacy and smoking re-examined: Construct validity and clinical utility . Journal of Consulting and Clinical Psychology, 54, 846-852.

Barlow, D.H., Cohen, A.S., Waddell, M.T., Vermilyea, B.B., Klosko, J.S., Balanchard, E.B., and DiNardo, P.A. (1984). Panic and generalized anxiety disorders: Nature and treatment. Behavior Therapy, 15, 431-449.

Barlow, D.H., O'Bren, G.T., and Last, C.G. (1984). Couples treatment of agoraphobia. Behavior Therapy, 15, 41-58.

Baucom. D.H., and Lester, G.W. (1986). The usefulness of cognitive restructuring as an adjunct to behavioral marital therapy. Behavior Therapy.

Beach, S.R.H., and O'Leary, K.D. (1986). The treatment of depression occurring in the context of marital discord. Behavior Therapy, 17,43-49.

Bennett, P., and Wilkinson, S. (1985). A comparison of psychological and medical treatment of the irritable bowel syndrome. British Journal of Clinical Psychology, 24, 215-216.

Brooks, G.R., and Richardson, F.C. (1980) . Emotional skill training: A treatment program for duodenal ulcer. Behavior Therapy, 11, 198-207.

Brown, R.A. and Lewinsohn, P.M. (1984). A psychoeducational approach to the treatment of depression: Comparison of group, individual and minimal contact procedures. Journal of Consulting and Clinical Psychology, 52, 774-783.

Brown, R.A., Lichtenstein, E., McIntyre, K.O., and Harrington - Kosture, J. (1984). Effects of nicotine fading and relapse prevention on smoking cessation. Journal of Consulting and Clinical Psychology, 52, 307-308.

Butler, G., Cullingston, A., Munby, M., Amies, P., and Gelder, M. (1984). Exposure and anxiety management in the treatment of social phobia.Journal of Consulting and Clinical Psychology, 52, 642-650.

Carmody, T.P.(1978). Rational - emotive, self instructional, and behavioral assertion training: Facilitative maintenance. Cognitive Therapy and Research, 2, 241-253.

Chhabra, S.P.,and Fielding, D. (1985). The treatment of scriptophobia by invivo exposure and cognitive restructuring. Journal of Behavior Therapy and

Experimental Psychiatry, 16, 265-269.

Cochran, S.D. (1984). Preventing medical noncompliance in the outpatient treatment of bipolar affective disorders. Journal of Consulting and Clinical Psychology, 52, 873-878.

Collins, R.L., Rothblum, E.D., and Wilson, G.T. (1986). The comparative efficacy of cognitive and behavioral approaches to the treatment of obesity. Cognitive Therapy and Research, 10, 299-318.

Cooley, E.J., and Spiegler, M.D. (1980). Cognitive versus emotional coping responses as alternatives to test anxiety. Cognitive Therapy and Research, 4, 159-166.

Craighead, L.W. (1979). Self-instructional training for assertive-refusal behavior. Behavior Therapy, 10, 529-542.

Derry, P.A. and Stone, G.L. (1979) Effects of cognitive - adjunct treatments on assertiveness. Cognitive Therapy and Research, 3, 213-221.

Diloreto, A.O. (1971). Comparative psychotherapy: An experimental analysis. New York: Aldine-Atherton.

Drot, S., Bernard, H., Lipshuty, H., and Nierenberg, A. (1986). Brief group psychotherapy for herpes patients: A preliminary study. Behavior Therapy, 17, 229-238.

Dunn, R.J. (1979). Cognitive modification with depression- prime psychiatric patients. Cognitive Therapy and Research, 3, 307-317.

D'Zurilla, T.J., Wilson, G.T., and Nelson, R.A. (1973). A preliminary study of the effectiveness of graduated prolonged exposure in the treatment of irrational fear. Behavior Therapy, 4, 672-685.

Ellis, A. (1957). Outcome of employing three techniques of psychotherapy. Journal of Clinical Psychology, 13, 344-350.

Emmelkamp, P.M.G., Kuipers, A.C.M., and Eggeraat, J.B. (1978). Cognitive modification versus prolonged exposure in vivo: A comparison with agoraphobics as subjects. Behavior Research and Therapy, 16, 33-41.

Emmelkamp, P.M.G., and Felten, M. (1985). The process of exposure invivo: cognitive and physiological changes during treatment of agoraphobia. Behaviour Research and Therapy, 23, 219-223.

Emmelkamp, P.M.G., Mersch, P.P., and Vissia, E. (1985). The external validity of analogue outcome research; evaluation of cognitive and behavioral interventions. Behaviour Research and Therapy, 23, 83-86.

Emmelkamp, P.M.G., Mersch, P.P., Vissia, E., and Van Der Helm, M. (1985). Social Phobia: a comparative evaluation of cognitive and behavioral

Experimental Psychiatry, 16, 265-269.

Cochran, S.D. (1984). Preventing medical noncompliance in the outpatient treatment of bipolar affective disorders. Journal of Consulting and Clinical Psychology, 52, 873-878.

Collins, R.L., Rothblum, E.D., and Wilson, G.T. (1986). The comparative efficacy of cognitive and behavioral approaches to the treatment of obesity. Cognitive Therapy and Research, 10, 299-318.

Cooley, E.J., and Spiegler, M.D. (1980). Cognitive versus emotional coping responses as alternatives to test anxiety. Cognitive Therapy and Research, 4, 159-166.

Craighead, L.W. (1979). Self-instructional training for assertive-refusal behavior. Behavior Therapy, 10, 529-542.

Derry, P.A. and Stone, G.L. (1979) Effects of cognitive - adjunct treatments on assertiveness. Cognitive Therapy and Research, 3, 213-221.

Diloreto, A.O. (1971). Comparative psychotherapy: An experimental analysis. New York: Aldine-Atherton.

Drot, S., Bernard, H., Lipshuty, H., and Nierenberg, A. (1986). Brief group psychotherapy for herpes patients: A preliminary study. Behavior Therapy, 17, 229-238.

Dunn, R.J. (1979). Cognitive modification with depression- prime psychiatric patients. Cognitive Therapy and Research, 3, 307-317.

D'Zurilla, T.J., Wilson, G.T., and Nelson, R.A. (1973). A preliminary study of the effectiveness of graduated prolonged exposure in the treatment of irrational fear. Behavior Therapy, 4, 672-685.

Ellis, A. (1957). Outcome of employing three techniques of psychotherapy. Journal of Clinical Psychology, 13, 344-350.

Emmelkamp, P.M.G., Kuipers, A.C.M., and Eggeraat, J.B. (1978). Cognitive modification versus prolonged exposure in vivo: A comparison with agoraphobics as subjects. Behavior Research and Therapy, 16, 33-41.

Emmelkamp, P.M.G., and Felten, M. (1985). The process of exposure invivo: cognitive and physiological changes during treatment of agoraphobia. Behaviour Research and Therapy, 23, 219-223.

Emmelkamp, P.M.G., Mersch, P.P., and Vissia, E. (1985). The external validity of analogue outcome research; evaluation of cognitive and behavioral interventions. Behaviour Research and Therapy, 23, 83-86.

Emmelkamp, P.M.G., Mersch, P.P., Vissia, E., and Van Der Helm, M. (1985). Social Phobia: a comparative evaluation of cognitive and behavioral

interventions. Behaviour Research and Therapy, 23, 365-369.

Evergerd, W., and Dekker, J. (1985). Treatment of male sexual dysfunction: therapy. Behaviour Research and Therapy, 23, 13-25.

Fairburn, C.G., Kirk, J., O'Connor, M., and Cooper, P.J. (1986). A comparison of two psychological treatments for bulimia nervosa. Behaviour Research and Therapy, 24, 629-643.

Feindler, E.L., Ecton, R.B., Kingsley, D., and Duley, D.R. (1986). Group anger-control training for institutionalized psychiatric male adolescents. Behavior Therapy, 17, 109-123.

Fleming, B.M., and Thornton, D.W. (1980) . Coping skills training as a component in the short-term treatment of depression. Journal of Consulting and Clinical Psychology, 48, 652-654.

Fremouw, W.J., and Harmatz, M.G. (1975). A helper model for behavioral treatment of speech anxiety. Journal of Consulting and Clinical Psychology, 43, 652-660.

Fremouw, W.J., and Zitter, R.E. (1978). A comparison of skills training and cognitive restructuring - relaxation for the treatment of speech anxiety. Behavior Therapy, 9, 248-259.

Fuchs, C.Z., and Rehm, L.P. (1977). A self-control behavior therapy program for depression. Journal of Consulting and Clinical Psychology, 45, 206-215.

Glogower, F.D., Fremouw, W.J., and McCrosky, J.C. (1978). A component analysis of cognitive restructuring. Cognitive Therapy and Research, 2, 209-223.

Hammen, C.L., Jacobs, M., Mayol, A., and Cochran, S.D.(1980). Dysfunctional cognitions and the effectiveness of skills and cognitive behavior assertion training. Journal of Consulting and Clinical Psychology, 48, 685-695.

Hayes, B.J., and Marshall, W.L. (1984). Generalization of treatment effects in training public speakers. Behavior Research and Therapy, 22, 519-533.

Hazaleus, S.L., and Deffenbacker, J.L. (1986). Relaxation and cognitive treatment of anger. Journal of Consulting and Clinical Psychology, 54, 222-226.

Heiby, E.M. (1986). Social versus self-control skills deficits in four cases of depression. Behavior Therapy, 17, 158-169.

Himadi, W.G., Cerny, J.A., Barlow, D.H., Cohen, S., and O'Brien, G.T. (1986). The relationship of marital adjustment to agoraphobia treatment outcome. Behaviour Research and Therapy, 24, 107-115.

Holroyd, K.A. (1976). Cognition and desensitization in the group treatment

of test anxiety. Jounal of Consulting and Clinical Psychology, 44, 991-1001.

Holroyd, K.A., Andreaski, F., and Westbrook, T. (1977). Cognitive control of tension headache. Cognitive Therapy and Research, 1, 121-133.

Jakes, S.C., Hallam, R.S., Rachman, S., and Hinchcliffe, R. (1986). The effects of reassurance, relaxation training and distraction on chronic tinnitus sufferers. Behaviour Research and Therapy, 24, 497-507.

Jenni, M.A., and Wollersheim, J.P. (1979). Cognitive therapy, stress management training, and Type A behavior patterns. Cognitive Therapy and Research, 1, 121-133.

Jerremalm, A., Jansson, L., and Ost, L.G. (1986). Cognitive and physiological reactivity and the effects of different behavioral methods in the treatment of social phobia. Behaviour Research and Therapy, 24, 171-180.

Jerremalm, A., Jansson, L., and Ost, L.G. (1986). Individual response patterns and the effects of different behavioral methods in the treatment of dental phobia. Behaviour Research and Therapy, 24, 589-596.

Kanter, N.J., and Goldfried, M.R. (1979). Relative effectiveness of rational restructuring and self-control desensitization in the reduction of interpersonal anxiety. Behavior Therapy, 10, 472-490.

Karst, T.O., and Trexler, L.D. (1970). Initial study using fixed role and rational-emotive therapy in treating public speaking anxiety. Journal of Consulting and Clinical Psychology, 34, 360-366.

Kendall, P.C., Williams, L., Pechacek, T.F., Graham, L.E., Shisslak, C., and Herzoff, N. (1979). Cognitive-behavioral and patient education interventions in cardiac and catheterization procedures. The Palo Alto medical psychology project. Journal of Consulting and Clinical Psychology, 47, 49-58.

Killen, J.D., Maccoby, N., and Barr, T.C. (1984). Nicotine gum and self-regulation training in smoking relapse prevention. Behavior Therapy, 15, 234-248.

Kim, N.S. (1980). Cognitive-behavioral treatment for students adaptation to academic major departments and improvement of academic performances. Behavior Therapy, 11, 256-262.

Kirkland, K., and Hollandsworth, J.G. (1980). Effective test taking: Skills-acquisition versus anxiety reduction techniques. Journal of Consulting and Clinical Psychology, 48, 431-439.

Kirkley, B.G., Schneider, J.A., Agras, W.S., and Bachman, J.A. (1985). Comparison of two group treatments for bulimia. Journal of Consulting and Clinical Psychology, 53, 43-48.

Kirschenbaum, D.S., Harris, E.S., and Tomarken, A.J. (1984). Effects of

parental involvement in behavioral weight loss therapy for preadolescents. Behavior Therapy, 15, 485-500.

Kirschenbaum, D.S., Stalonas Jr., P.M., Zastowny, T.R., and Tomarken, A.J. (1985). Behavioral treatments of adult obesity: Attentional controls and a two year follow-up. Behaviour Research and Therapy, 675-682.

Lake, A., Rainez, J., and Papsdorf, J.D.(1979). Biofeedback and rational emotive therapy in the management of migraine headache. Journal of Applied Behavior Analysis, 12, 127-140.

Linehan, M.M., Goldfried, M.R., and Goldfried, A.P. (1979). Assertion therapy: Skill training or cognitive restructuring. Behavior Therapy, 10, 372-388.

Lipsky, M.J., Kassinove, H., and Miller, N.J. (1980). Effects of rational emotive therapy, rational role reversal, and rational-emotive imagery on the emotional adjustment of community mental health center patients. Journal of Consulting and Clinical Psychology, 48, 366-374.

Mansdorf, I.J., and Ben-David, N. (1986). Operant and cognitive intervention to restore effective functioning following a death in the family.

Marshall, W.L. (1985). The effects of variable exposure in flooding therapy. Behavior Therapy, 16, 117-135.

McCordick, S.M., Kaplan, R.M., Finn, M.E., and Smith, S.H. (1979). Cognitive behavior modification and modeling for test anxiety. Journal of Consulting and Clinical Psychology, 47, 419-420.

McIntyre-Kingsolver, K., Lichtenstein, E., and Mermelstien, R.J. (1986). Spouse training in multicomponent smoking-cessation program. Behavior Therapy, 17, 67-74.

McIntyre, T.J., Balfour Jeffery, D., and McIntyre, S.L.(1984). Assertion Training: the effectiveness of the comprehensiveness of cognitive-behavioral treatment package with professional nurses. Behaviour Research and Therapy, 22, 311-318.

McKnight, D.L., Nelson, R.O., Hayes, S.C., and Jarrett, R.B.(1984). Importance of treating individually assessed response classes in the amelioration of depression. Behavior Therapy, 15, 315-335.

McLean, P.D., and Hakstain, A.R. (1979). Clinical depression: Comparative efficacy of outpatient treatments. Journal of Consulting and Clinical Psychology, 45, 818-836.

Meichenbaum, D.H. (1972). Cognitive modification of test anxious college students. Journal of Consulting and Clinical Psychology, 39, 370-380.

Meichenbaum, D.H., Gilmore, J.B., and Fedoravicius, A. (1971). Group

insight versus group desensitization in treating speech anxiety. Journal of Consulting and Clinical Psychology, 36, 410-421.

Mermelstein, R., Cohen, S., Lichtenstein, E., Baer, J.S., and Kamarck, J. (1986). Social support and smoking cessation and maintenance. Journal of Consulting and Clinical Psychology, 54, 447-453.

Moleski, R., and Tosi, D.J. (1976). Comparative psychotherapy: Rational emotive therapy versus systematic desensitization in the treatment of stuttering. Journal of Consulting and Clinical Psychology, 44, 309-311.

Moore, J.E., and Charey, E.F. (1985). Outpatient grup treatment of chronic pain: Effects of spouse involvement. Journal of Consulting and Clinical Psychology, 53, 326-334.

Moses, A.N., and Hollandsworth, J.G. (1985). Relative effectiveness of education alone versus stress inoculation training in the treatment of dental phobia. Behavior Therapy, 16, 531-537.

Nicki, R.M., Remington, R.E., and McDonald, G.A. (1984). Self-efficacy, nicotine-facing, self-monitoring and cigarette smoking behavior. Behaviour Research and Therapy, 22, 477-485.

Odom, J.V., Nelson, R.O., and Wein, K.S. (1978). The differential effectiveness of five treatment procedures on three repsonse systems in a snake phobia analog study. Behavior Therapy, 9, 936-942.

Ordman, A.M., and Kirschenbaum, D.S. (1985). Cognitive-behavioral therapy for bulimia: An initial outcome study. Journal of Consulting and Clinical Psychology, 53, 305-313.

Ost, L. (1985). Ways of acquiring phobias and outcome of behavioral treatments. Behaviour Research and Therapy, 23, 683-689.

Perri, M.G., McAdoo, W.G., McAllister, D.A., Lauer, J.B., and Yancey, D.Z. (1986). Enhancing the efficacy of behavior therapy for obesity: Effects of aerobic exercise and a multicomponent maintenance program. Journal of Consulting and Clinical Psychology, 54, 670-675.

Persons, J.B., and Burns, D.D. (1985). Mechanisms of action of cognitive therapy: the relative contributions of technical and interpersonal interventions. Cognitive Therapy and Research, 9, 539-551.

Propst, L.R. (1980). The comparative efficacy of religious and non religious imagery for the treatment of mild depression in religious individuals. Cognitive Therapy and REsearch, 4, 167-178.

Rabin, A.S., Kaslow, N.J., and Rehm, L.P. (1984). Changes in symptoms of depression during the course of therapy. Cognitive Therapy and Research, 8,

479-488.

Rehm, L.P., Fuchs, C.Z., Roth, D.M., Kornbluth, B.J., and Romano, J.M. (1979). A comparisson of self-control and assertion skills treatments of depression. Behavior Therapy, 10, 429-442.

Reynolds, W.M. and Coats, K.J. (1986). A comparison of cognitive-behavioral therapy and relaxation training for the treatmet of depression in adolescents. Journal of Consulting and Clinical Psychology, 54, 653-660.

Rosenfarb, I., and Hayes, S.C. (1984). Social standard setting. The achilles level of informational accounts of therapeutic changes. Behavior Therapy, 15, 515-528.

Rossiter, E.M., and Wilson, G.T.(1985). Cognitive restructuring and response prevention in the treatment of bulimia nervosa. Behaviour Research and Therapy, 23, 439-359.

Rush, A.J., Beck, A.T., Kovacs, M., and Hollon, S. (1977). Comparative efficacy of cognitive therapy and pharmacotherapy in the treatment of depressed outpatients. Cognitive Therapy and Research, 1,17-37.

Salkovskis, P.M., Warwick, H.M.C., Clark, D.M., and Wessels, D.J.(1986). A demonstration of acute hyperventilation during naturally occurring panic attacks. Behaviour Research and Therapy, 24, 91-94.

Sharp, J.J., and Forman, S.G. (1985). A comparison of two approaches to anxiety management for teachers. Behavior Therapy, 16, 370-383.

Shaw, B.F. (1977). Comparison of cognitive therapy and behavior therapy in the treatment of depression. Journal of Consulting and Clinical Psychology, 45, 543-551.

Stalonas, P.M., and Kirschenbaum, D.S. (1985). Behavioral treatments for obesity: Eating habits revisited. Behavior Therapy, 16, 1-14.

Stenn, P.G., Mothersill, K.J., and Brooke, R. I. (1979). Biofeedback and a cognitive behavioral approach to treatment of myofascial pain dysfunction syndrome. Behavior Therapy, 10, 29-36.

Steuer, J.L., Mintz, J., Hammen, C.L., Hill M.A., Jarvik, L.F., Mc Carley, T., Motoike, P., and Rosen, R. (1984). Cognitive-behavioral and psychodynamic group psychotherapy in treatment of geriatric depression. Journal of Consulting and Clinical Psychology, 52, 180-189.

Taylor, F.G., and Marshall, W.L. (1977). Experimental analysis of a cognitive -behavioral therapy for depression. Cognitive Therapy and Research, 1, 59-72.

Teri, L., and Lewinsohn, P.M. (1986). Individual and group treatment of unipolar depression: Comparison of treatment outcome and identification of

predictors of successful treatment outcome. Behavior Therapy, 17, 215-228.

Tarrier, N., and Maguire, P. (1984). Treatment of psychological distress following mastectomy : an initial report. Behaviour Research and Therapy, 22, 81-84.

Thorpe, G.L. (1975). Desensitization, behavior rehearsal, self instructional training and placebo effects on assertive-refusal behavior. European Journal of Behavior Analysis and modification, 1, 30-44.

Thorpe, G.L., Amatu, H.I., Blakey, R.S., and Burens, L.E. (1967). Contributions of overt instructional rehearsal and "specific insight" in the effectiveness of self instructional training : A preliminary study. Behavior Therapy, 7, 504-511.

Trexler, L.D., and Karst, T.O. (1972). Rational-emotive therapy, placebo, and no treatment effects on public speaking anxiety. Journal of Abnormal Psychology, 79, 60-67.

Telch, C.F., and Telch, M.J. (1986). Group coping skills instruction and supportive group therapy for cancer patients: A comparison of strategies. Journal of Consulting and Clinical Psychology, 54, 802-808.

Van Der Ploeg-Stapert, J.D., and Van Der Ploeg, H.M. (1986). Behavioral group treatment of test anxiety: An evaluation study. Journal of Behavior Therapy and Experimental Psychiatry, 17, 225-259.

Waddell, M.T., Barlow, D.H., and O'Brien, G.T. (1984). A preliminary investigation of cognitive and relaxation treatment of panic disorder. Effects on intense anxiety vs "background" anxiety. Behaviour Research and Therapy, 22, 393-402.

Wadden, T.A., Stunkard, A.J., Brownell, K.D., Day, S.C. (1984). Treatment of obesity by behavior therapy and very low caloric diet: A pilot investigation. Journal of Consulting and Clinical Psychology, 52, 692-694.

Wadden, T.A., and Stunkard, A.J. (1986). Controlled trial of very low caloric diet behavior therapy, and their combination in the treatment of obesity. Journal of Consulting and Clinical Psychology, 54, 482-488.

Wein, K.S., Nelson,R.O., and Odon, J.V. (1975). The relative contributions of reatttribution and verbal extinction to the effectiveness of cognitive restructuring. Behavior Therapy, 6, 459-474.

Weissberg, M. (1977). A comparison of direct and vicarious treatments of speech anxiety: Desensitization, desensitization with coping imagery, and cognitive modification. Behavior Therapy, 8, 606-620.

Wells,J.K., Howard, G.S., Nowlin, W.F., and Vargas, M.J. (1986). Presurgical anxiety and post-surgical pain and adjustment : Effects of a stress -

inoculation procedure. Journal of Consulting and Clinical Psychology, 54, 831-835.

Wernick, R.L. (1984). Stress management with practical nursing students: Effects on attribution. Cognitive Therapy and Research, 8, 543-550.

Wilson, G.T., Rossiter, E., Kleifield, E.I., and Lindholm, L. (1986). Cognitive behavioral treatment of bulimia nervosa : a controlled evaluation. Behavior Research and Therapy, 24, 277-288.

Wolfe, J.L., and Fodor, I.G. (1977) . Modifying assertive behavior in women : A comparison of three approaches. Behavior Therapy, 8, 567-574.

Woodward, R., and Jones, R.B. (1980). Cognitive restructuring treatment : A controlled trial with anxious patients. Behavior Research and Therapy, 18, 410-407.

Yates, A.J., and Sambrailo, F. (1984). Bulimia nervosa : A descriptive and therapeutic study. Behavior Research and Therapy, 22.

Young, L., and Humphrey, M. (1985). Cognitive methods of preparing women for hysterectomy : Does a booklet help ? British Journal of Clinical Psychology, 24, 303-304.

Zeiss, A.M., Lewinsohn, P.M., and Munoz, R.F. (1979). Non-specific improvement effects in depression of using interpersonal skills training, pleasant activity schedules, or cognitive training. Journal of Consulting and Clinical Psychology, 47, 427-439.

Table I Summary of the evidence of cognitive changes as a result of Cognitive Behavior Therapy

	DEPRESSION		TOTAL NO. OF STUDIES: 19 MOIV	WITH MOIV: 5 EVIDENCE OF COGNITIVE CHANGE
1.	Baker and Wilson	(1985)	Dysfunctional Attitude Scale	No
2.	Fleming and Thornton	(1980)	Pleasant Events Schedule	Maybe
3.	McKnight et. al.	(1984)	Self Concept Test	Maybe
4.	Rehm et. al.	(1979)	Irrational Beliefs Test	Maybe
5.	Zeiss et. al.	(1979)	Cognitive Events	No

	ANXIETY		TOTAL NO. OF STUDIES: 22 MOIV	WITH MOIV: 6 EVIDENCE OF COGNITIVE CHANGE
1.	Emmelkamp et. al.	(1985)	Irrational Beliefs Test	Yes (Not clear whether due to CBT or BT)
2.	Hayes and Marshall	(1984)	Thought Stopping Survey Schedule Thought Sampling Questionnaire	Maybe (But outcome is related to skills training programme).
3.	Kanter and Goldfried	(1979)	Irrational Beliefs Test	No
4.	Kim	(1980)	Adaptive Self Statement Test	No
5.	Kirkland and Hollandworth	(1980)	Cognitive - Somatic Anxiety Questionnaire	No
6.	Trexler and Karst	(1972)	Irrational Beliefs Test	No

Table 1

	ANXIETY DISORDERS		TOTAL NO. OF STUDIES: 28 MOIV	WITH MOIV: 7 EVIDENCE OF COGNITIVE CHANGE
1.	Alden et. al.	(1979)	Maybe Irrational Belief Test	No
2.	Derry and Stone	(1979)	Irrational Belief Test Assertive Self Statement	No
3.	Emmelkamp	(1985)	Irrational Belief Test	Yes
4.	Emmelkamp	(1985)	Irrational Belief Test (at pretest only) Maybe a retrospective method of thought listing is used as MOIV	Maybe (Not related to therapeutic outcome).
5.	Hammen et. al.	(1980)	Dysfunctional Attitude Scale	No
6.	Jerremalm et. al.	(1986)	Maybe authors constructed tests for checking thoughts	Maybe
7.	McIntyre et. al.	(1984)	Self Statement Test	Maybe
	PSYCHOPHYSIOLOGICAL DISORDER		TOTAL NO. OF STUDIES: 3 MOIV	WITH MOIV: 1 EVIDENCE OF COGNITIVE CHANGE
1.	Lake et. al.	(1979)	Irrational Belief Test (All groups of migraine patients even the control showed improvement)	No

OBESITY	TOTAL NO. OF STUDIES: 7	WITH MOIV: 0
BULIMA NERVOSA	TOTAL NO. OF STUDIES: 6	WITH MOIV: 0
SMOKING	TOTAL NO. OF STUDIES: 5	WITH MOIV: 0
PHYSICAL AILMENTS	TOTAL NO. OF STUDIES: 6	WITH MOIV: 0
PSYCHOLOGICAL DISTRESS AS A RESULT OF PHYSICAL TRAUMA	TOTAL NO . OF STUDIES: 3	WITH MOIV: 0
AGGRESSION	TOTAL NO. OF STUDIES: 2	WITH MOIV: 0
MISCELLANEOUS	TOTAL NO. OF STUDIES:10	WITH MOIV: 3

			MOIV	EVIDENCE OF COGNITIVE CHANGE
1.	Baucom and Lester	(1986)	Irrational Belief Test Relationship Belief Inventory	Maybe (Not clear whether due to CBT and BM or BM)
2.	Lispsky et. al.	(1980)	Idea Inventory	No
3.	Persons and Burns	(1986)	Daily records of Dysfunctional Thoughts	Maybe

TOTAL NO. OF STUDIES	WITH MOIV	STUDIES SHOWING COGNITIVE CHANGE:	MAYBE	NO	YES
112	22 (19.64%)		9 (8.03%)	11 (9.82%)	2 (1.78%)

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PERSONAL FACTORS AS DETERMINANTS OF REMAINERS AND TERMINATORS IN PSYCHOTHERAPY

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ABSTRACT

Certain personal factors were hypothesized to be determinants of Remainers and Terminators in psychotherapy i.e. conflict with job timings, motivation of the patient, previous psychiatric experience, age and sex.

In order to test these hypotheses a questionnaire was prepared and given to 11 student therapists of the Institute of Clinical Psychology, University of Karachi. 150 cases treated by these therapists were studied. Out of them 75 were Remainers and 75 were Terminators. The various variables under study were assessed through the ratings of the patients obtained from their respective therapists. Chi-Square test of independence was applied to all the variables. It was found that when the client is highly motivated, has previous psychiatric experience, and is young, he/she tends to remain in psychotherapy. Whereas clients who had conflicts with job timings, tend to be Terminators. The variable of sex as a determinant of Remainers and Terminators was not found to be statistically significant.

INTRODUCTION

In our country people are now becoming more and more aware of the fact that mental problems and illnesses can be treated by psychotherapy, but since there is a dearth of qualified clinicians it has become imperative that we define and identify those individuals who can or cannot benefit from particular forms of therapy. The recognition that therapy must be tailored to the patient, his

problem and his needs rather than the reverse has, ofcourse, been present in the literature for some time (Goldstein & Stein, 1976).

The outcome of psychotherapy obviously depends to a significant extent on patient characteristics. From the moment the therapist meets a patient, they seek to define the nature of the problem in need of treatment of or amelioration. They become diagnosticians who attempt to identify a malfunction of a "problem" in order to take appropriate therapeutic steps. This requires an understanding of the vast array of individual differences among patients and how to deal with them.

The vital fact long recognised by clinicians, is that patients differ on a host of dimensions --- from intelligence, education, social class and age, to such variables as psychological mindedness, motivation for therapy, organisation of defences, and rigidity of character (Strupp, 1978).

One interesting aspect of psychotherapy pertains to the kinds of people who voluntarily seek out, or are referred for psychotherapeutic treatment, and even are considered appropriate for psychotherapy. Such patients at times turn down this opportunity. This becomes a vital problem in the practice of a clinician. Generally, such termination appears to be initiated by the client before there has been a mutual agreement that therapy has been completed.

The problem of discontinuing psychotherapy without the advice of the therapist (premature termination) is very vital especially in our country because of the fact that the technique of psychotherapy is in its infancy and one wants that more people benefit by this new technique. This can only be possible if we select our patients, keeping in mind the various personal factors which affect the early termination of the patient.

In the U.S., a report from an inner city mental health clinic indicates that only 57% of the patients admitted to the clinic remained for 4 or more interviews. (Craig and Huffine, 1976)

Eiduson (1986), in a review of this problem, also concluded that "30% to 65% of all patients are dropouts in facilities representing every kind of psychiatric service."

Furthermore, it appears that those who terminate psychotherapy early rarely go on to seek therapy elsewhere (Garfield, 1963; Riess & Brandt, 1965).

Counseling psychologists have also demonstrated a renewed interest in the premature self termination of clients from counseling, and three recent studies (Betz & Shullman, 1979; Epperson, 1981; Krauskopf, Baumgarden & Mandracchia, 1981) focussed on a specific subset of premature terminations at university counseling centers. This subset, early premature terminations (EPTs), included clients who failed to return for scheduled counseling sessions after their initial contact with the counseling center e.g. intake interview or initial counseling session when intake procedures were not used. The results of these studies indicated that 19% - 25% of the clients failed to return for their next scheduled counseling session after an initial contact with the counseling center. Although not eliminated as a possibility in any of the three studies, client improvement as an explanation of the reported rates of EPTs was seriously questioned on the basis of tangential, but relevant evidence, and because clients classified as EPT's had only the briefest of exposure to counseling (Betz & Shullman, 1979; Epperson, 1981). Given this state of affairs the phenomenon of EPT's at university counseling centers is considered to certainly warrant further investigation.

However, reasons for failure to return for counseling following an intake interview may differ from the factors influencing premature termination after several sessions with a regularly assigned counselor (Backland & Lundwall, 1975). In addition to the possible relationship of client sex, counselor sex, and counselor experience level to return rate after intake, certain characteristics of the referral itself may influence the probability that clients will return.

It can be stated with confidence, therefore, that the findings of an unplanned and premature termination from psychotherapy on the part of many clients in traditional clinic settings has been a reasonably reliable one. The apparent rejection of psychotherapy by a number of those who appear to be in need of it has been a somewhat surprising and perplexing finding.

Client Variables in Psychotherapy

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Client Variables in Psychotherapy

Whether our concern is research or practice, the client is clearly an important variable in psychotherapy and is the focus of many research

investigations.

The client variables are those factors in the patient, in his personality organization and in the structure and dynamics of his illness which we believe are relevant to the course and outcome of his/her treatment.

Some of these, such as the nature and severity of his symptoms or the intensity and manner of manifestation of anxiety are directly reportable by the patient. Others such as the nature of the core neurotic conflict, or the patterning of ego defences, or anxiety tolerance are complex assessments arrived at via the clinical inferential process from a consideration of the total available clinical data in each case.

A variety of studies have attempted to relate differing client attributes to selected variables. Among the client attributes have been personality variables, age, sex, intelligence, motivation and the like. These have been related to outcome, continuation in psychotherapy, therapy behaviour and similar variables.

The list of potential client characteristics is endless. Consequently, it has been difficult to synthesize or even compare research in this area. After a comprehensive review of the literature, Brandt (1965) concluded that there was no clear picture of the premature terminator because of inconsistent and contradictory results in the research area. Some eighteen years later, this statement is still accurate (Hoffman, 1985).

Brandt (1965) earlier reviewed the relationship of 13 client variables related to premature termination. He found neither subject's sex nor age differentiated terminators from remainers in the majority of studies.

Client Factors Involved in Dropping out of Treatment

Age

In a review of the relevant literature Backland & Lundwall (1975) found that, in 16 out of 51 studies (31.4%), in which it was taken into account, the age of the patient proved to be an important clue to his/her persistence in treatment (Altman, Angle, Brown & Sletten, 1972; Altman, Brown and Sletten, 1972; Babst et al., 1971; Brown & Kosterlitz, 1964; Caldwell et al., 1970; Cancro, 1968; Downing et al., 1970; Meyer et al, 1967; Miller et al., 1968;

Miller et al., 1970; Newman & Sparer, 1956; Rayne & Patch, 1971; Turner, Gardner & Higgins, 1970; Williams & Johnston, 1972). Out of the 51 studies, 35 (68.6%) found age to be unrelated to dropping out (Adams, et al., 1971; Affleck & Garfield, 1961; Backland et al., 1973; Bailey et al., 1959; Calden et al., 1958; Cartwright, 1955; Cusky et al., 1971; Daniels et al., 1963; Dodd, 1971; Errera et al., 1967; Freedman et al., 1958; Garfield & Affleck, 1959; Greenwald & Bartemeier, 1963; Heilbrun, 1961,1971; Hunt, 1962; Kissin et al., 1970; Levine et al., 1972; Lewis et al., 1955; Lowinger and Dobie, 1968; Mayer et al., 1965; Nagpaul et al., 1970; Pisani & Motansky, 1970; Raynes et al., 1972; Raynes et al., 1973; Rickels & Anderson, 1969; Rosenthal & Frank, 1958; Ross & Lacey, 1961; Sells, Chatham & Joe, 1972; Sethna & Harrington, 1971; Weiss & Schale, 1958; Williams & Pollack, 1964; Zax et al., 1961).

It seems that the younger patient is more likely to drop out of treatment. Why this should be so is not entirely clear, but the same is true of patients who are lost to followup in epidemiological studies (Turner et al., 1970), in which patient attrition has in part been attributed to the greater geographical mobility of the younger person, who is less likely to have nuclear family and community ties of relatively binding obligations to aged parents.

Sex

In their review of the literature Backland and Lundwall (1975) also found that out of 31 investigations, 13 (44.8%), reported that the sex of the patient helped to determine whether he would stay in treatment, (Altman, Angle, Brown & Sletten 1972; Altman, Brown & Sletten, 1972; Brown & Kosterlitz, 1964; Cartwright, 1955; Lowinger & Dobie, 1968; McNair et al., 1967; Newman & Kagen, 1973; Raynes & Patch, 1971; Rickels, 1968; Rosenthal & Frank, 1958; Sethna & Harrington, 1971; Weiss & Schale, 1958; Williams & Pollack, 1964).

Out of 31 studies 18 (55.2%) failed to relate sex of the client to persistence in treatment (Adams et al., 1971; Affleck & Garfield, 1961; Cusky et al, 1971; Daniels etal., 1963; Dodd, 1971; Downing et al., 1970; Errera et al., 1967; Freedman et al, 1958; Greenwald & Bartemeier, 1963; Heilbrun, 1971; Hunt, 1962; Levitt, 1957; Mayer et al., 1965; G.C. Meyer, 1967; Nagpaul et al., 1970; Raynes et al., 1972.

In conclusion, it appears that female patients are more likely to drop out

of outpatient treatment. One factor which may be responsible is that of patient - therapist mismatches on the A-B variable. While its significance has been shown only in drug treatment, there is no reason why it could not be important elsewhere. That female patients are more likely to drop out of treatment may also be related to their greater field dependence (Karp, Poster & Goodman, 1963; Witkin et al., 1962). Perceptual and behavioral dependence are related (Witkin et al., 1962), and both were apparently involved in dropping out in a number of studies (Blane & Meyers, 1963; Frank, 1963; Strickland & Crowne, 1963; Voth, 1965). In alcoholics and addicts, at least, the different dropout rates of men and women may reflect the fact that alcoholism and addiction in women implies a greater degree of social deviancy than in men, who may hence be less psychiatrically impaired than women in clinic populations. Indeed, hospitalized female alcoholics do worse on follow-up than do male patients with the same age, duration of heavy drinking and number of prior hospitalizations.

Motivation

While motivation has rightly been criticised as a diffuse, poorly defined and partly circular concept (Holt, 1967; Pittman and Sterne, 1965), it is clear that the strength of the patient's reasons for treatment, regardless of their source, influence whether he opts to stay in it. These may include his ability to endure frustration and form long range goals, his dissatisfaction with himself along with a need for change, the presence or absence of dysphoric symptoms, and a felt need for help on his part as opposed to that of a referring institution or agency.

Poor motivation or variables related to it have often been implicated in defection from treatment in the various research studies done in the developed countries. In fact 34 out of 41 studies (82.9 %), surveyed, thought it important (Altman, Brown & Sletten, 1972; Backland et al., 1973; Caine et al., 1973; Drolet & Porter, 1949; Frank et al., 1957; Goldfried, 1969; Heilbrun, 1973; Kotkov, 1958; Lake & Levinger, 1960; Lewis et al., 1955; Mayer, 1972; Mendelsohn & Geller, 1967; E. Meyer et al., 1967; G.G. Meyer et al., 1967; Miller et al., 1968; Miller et al., 1970; Nagpaul et al., 1970; Newman & Sparer, 1956; Perkins & Bloch, 1971; Rickels, 1968; Rickels & Anderson, 1969; Ripple, 1957; Ripple & Alexander, 1956; Robson et al., 1965; Rosenthal & Frank, 1958; Ross & Lacey, 1961; Shelton & Sparer, 1956; Straker, 1968; Weiss & Schale, 1958; Wieland & Novack, 1973; Williams & Johnston, 1972; Williams

& Pollack, 1964; Zax, 1962; Zax et al., 1961); whereas only 7 out of 41 studies (17.1 %), cast dissenting votes. These were Dodd, 1971; Freedman et al, 1958; Garfield & Affleck, 1963; Gerrein et al., 1973; Levitt, 1958; Mayer et al., 1965; and Sethna & Harrington, 1971.

According to Lambert & Dejulio (1978), the most influential factors in determining either successful or unsuccessful treatment outcome are contributed by the patient. Psychotherapy appears to be most effective when the patient is amply motivated to undergo intensive self-scrutiny and modify his/her own behaviour. Unmotivated, non-insightful patients are also amenable to psychotherapy, however (e.g. Garfield, 1980; Goldstein, 1973; Karon & Vandenbos, 1981).

Patients who do poorly or dropout of treatment seem to enter therapy with a negative disposition towards its effectiveness, resistant to persuasion messages, and filter their view of the therapist through their own negativistic perspective, remaining relatively intransigent to the therapist's effort. Even as rated by outside observers, attributed therapist qualities vary from moment to moment and patient to patient (Beutler et al., 1973; Beutler, 1976; Gurman, 1973)

Several authors like Baer etal., 1980; Gomes - Schwartz, 1978; and Kolb, 1981, have determined that among a variety of process dimensions, patient involvement/motivation most consistently predicts therapy outcome.

Other Personal and Situational Factors

In a study by Magnavita (1981) which was an investigation of the relationship between attitudes towards help-seeking, and the early premature termination of psychotherapy, the first discriminant analysis showed that the variables, which were entered in the following order, attitudes towards help-seeking, clients previous history of psychological consultation, familial history of help seeking and age of the client, were able to correctly classify 69.2 % of the subjects into the criterion groups. The results of the second discriminant analysis, using the subscales from the attitude survey, accurately classified 57.6% of the cases. This was 14% over and above the prediction based on chance alone, and was significant ($p<0.10$).

Hoffman (1985), investigated client factors related to the premature

termination of counseling or psychotherapy. A review of 287 mental health center client files revealed 3 variables that were found to be significantly related to premature termination: diagnosis, presenting problem and previous psychiatric experience. Early terminators had less previous contact with psychiatric services, were usually not psychotic, and presented with problems in the area of interpersonal relationships. Results suggest that community education activities, informed consent procedures, therapist's knowledge of the early terminator's profile and a wider range of services, including more groups, may improve community mental health center service delivery to these clients.

Fraps (1982) has supported the contention that situational and behavioural variables are associated with outpatient psychotherapy attendance. Adults who requested outpatient psychotherapy completed a pre-treatment questionnaire after admission and a post treatment questionaire immediately after the first therapy session. Questionnaire items concerned the client's situation at the time of the request for treatment (e.g. distance travelled to the clinic), past behaviour in fulfilling commitments, self prediction of session attendance and reaction to the initial interview. Five items were related significantly to continuation in two separate subjects samples. i.e. sex (females, longer stay), education (higher, longer stay), occupation (higher, longer stay), involvement in organization activities (more active, longer stay), distance travelled to the clinic (greater distance, shorter stay), and ease in getting to clinic (more difficult, shorter stay).

The preceding literature review indicates that conflicting and unreplicated findings have been frequent, the reasons for which are quite apparent. The studies have utilized different definitions of early termination, the samples and methods of appraisal have differed, therapeutic conditions and frequency of therapy have not been consistent, comparable information on certain variables has not been available, and a number of similar types of difficulties have been encountered. Variations of this kind, of course, make reliable or clearcut generalizations difficult. At the present time, therefore, we have relatively few reliable findings in the developed countries and studies of such a nature have not been done in our culture. Therefore it was considered appropriate to study these important variables in Pakistan.

Psychotherapy is a new technique in our culture, properly trained psychotherapists are very few, and clients in need of psychotherapeutic services

are very many. Therefore, we cannot afford to waste time and professional manpower. It is clearly important to identify client variables that are related to positive therapy outcome. In view of this, the author has framed the following hypotheses to identify the patients who have a greater chance of remaining in and benefiting from psychotherapy and those who are more likely to terminate prematurely. The following hypotheses were framed in the light of the above research review and sociocultural factors prevalent in Pakistan.

Hypothesits No.1 If coming for psychotherapy involves greater conflict with job timings then there will be a greater likelihood of early termination.
Hypothesis No.2. Patients who come voluntarily for psychotherapy will remain longer in psychotherapy.
Hypothesis No.3. Patients who have had previous psychiatric experience will remain longer in psychotherapy.
Hypothesis No.4. Younger patients (18-35 years) are more likely to remain longer in psychotherapy as compared to older patients (36-60 years).
Hypothesis No.5. Female patients are more likely to remain longer in psychotherapy as compared to male patients.

METHOD

Adults who started individual psychotherapy in the Institute of Clinical Psychology, University of Karachi, Karachi, served as subjects. These patients were registered for psychotherapy from January 1985 to December 1986.

A total of 150 patients were selected for the study which included 75 Remainers and 75 Terminators. This sample consisted of 88 males and 62 females with a combined mean age of 33.6 years (S.D. = 14.8). As a total group, the patients were heterogenous with respect to demographic characteristics:-

- 51.6 % were married, 18.3% were divorced or widowed and 30.1 % had never been married.
- Diagnostically the patients represented a broad range of psychological diagnoses.

There were 11 student therapists who were requested to provide information about their respective patients. This information was collected on the basis of a questionnaire which was prepared in consultation with an experienced and

qualified clinical psychologist alongwith several other Ph.D. candidates of clinical psychology. The student therapists were requested to fill in the questionnaires provided to them by the author regarding the details of their respective patients, after they had diagnosed the patient and before starting psychotherapy.

Operational Definitions of Various Variables

a. Remainer cases are defined as those cases who continue to remain in psychotherapy for 30 sessions and/or are successfully terminated upon the recommendation of the Director of the Institute.

Terminator cases are those cases who leave psychotherapy without the advice of the therapist and those who terminate before 10 sessions of psychotherapy.

b. "Conflict with Job" was defined in accordance with the assessment made through the questionnaire as Easy (no confilict with housework, job or education timings) and Difficult (conflict with housework, job or education timings).

c. "Motivation Level" was defined as the extent to which the internal states of the individual lead to the goal direction and energizing of behaviour for coming to psychotherapy. This was measured on a 5 point rating scale given in Appendix 1.

d. "Previous Psychiatric Experience" was defined as whether or not the patient had any previous treatment with a psychiatrist before coming to the Institute.

Statistics

A chi square test of independence was computed between the actual frequency of terminators and remainers for all the variables. The expected overall frequency based on the frequency of remainers and terminators in the total sample was calculated.

Chi square was computed for each column in which there was significant difference between the expected frequency and the observed frequency within the dependent variables.

TABLE No. 1

EFFECT OF CONFILICT WITH JOB TIMINGS
ON REMAINERS & TERMINATORS
IN PSYCHOTHERAPY

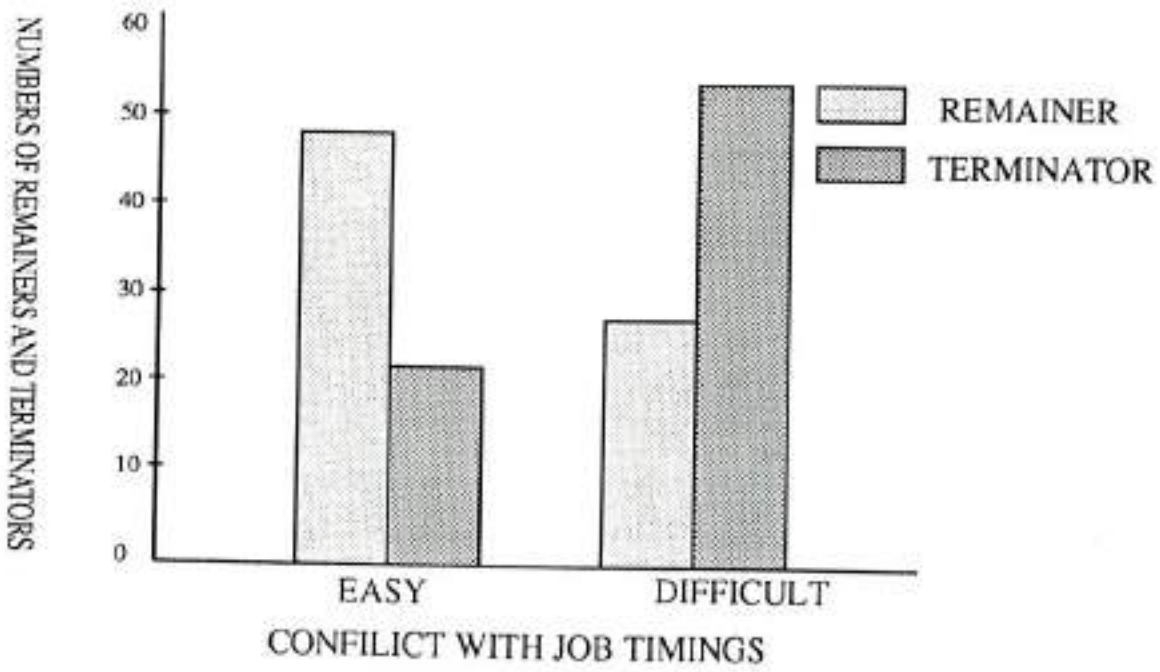
	Remainer	Terminator	Total
EASY (No conflict with housework, job or education timings)	48 (34.5 fe)	21 (34.5 fe)	69
DIFFICULT (Conflict with housework, job or education timings)	27 (40.5 fe)	54 (40.5 fe)	81
TOTAL	75	75	150

$$X^2 = \frac{(Fo-Fe)^2}{Fe} \qquad X^2 = 19.56$$

Significant at 0.001 level

GRAPH A

EFFECT OF CONFLICT WITH JOB TIMINGS ON
REMAINERS AND TERMINATORS IN PSYCHOTHERAPY



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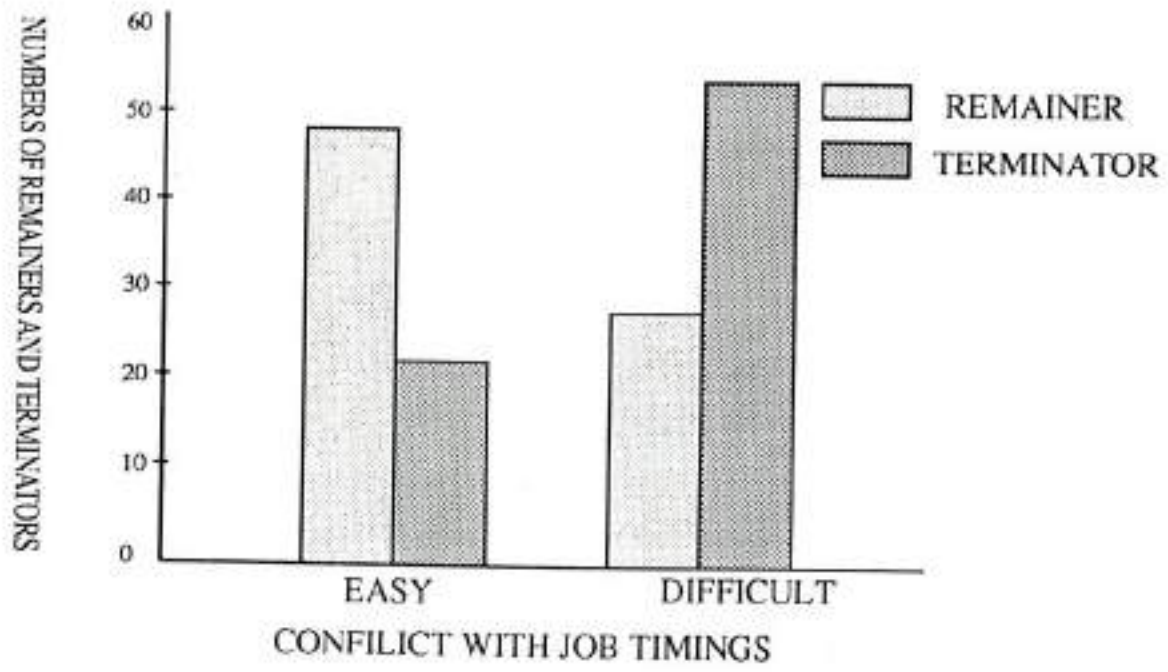


TABLE No. 2

EFFECT OF MOTIVATION LEVEL
ON REMAINERS & TERMINATORS
IN PSYCHOTHERAPY

	Remainer	Terminator	Total
Very highly motivated	18 (12 fe)	6 (12 fe)	24
Highly motivated	35 (24.5 fe)	14 (24.5 fe)	49
Moderate	11 (13.5 fe)	16 (13.5 fe)	27
Less Motivated	6 (12 fe)	18 (12 fe)	24
Least motivated	5 (13 fe)	21 (13 fe)	26
TOTAL	75	75	150

$$X^2 = \frac{(fo-fe)^2}{fe} \qquad X^2 = 31.76$$

Significant at 0.001 level

GRAPH B

EFFECT OF MOTIVATION LEVEL
ON REMAINERS & TERMINATORS IN PSYCHOTHERAPY

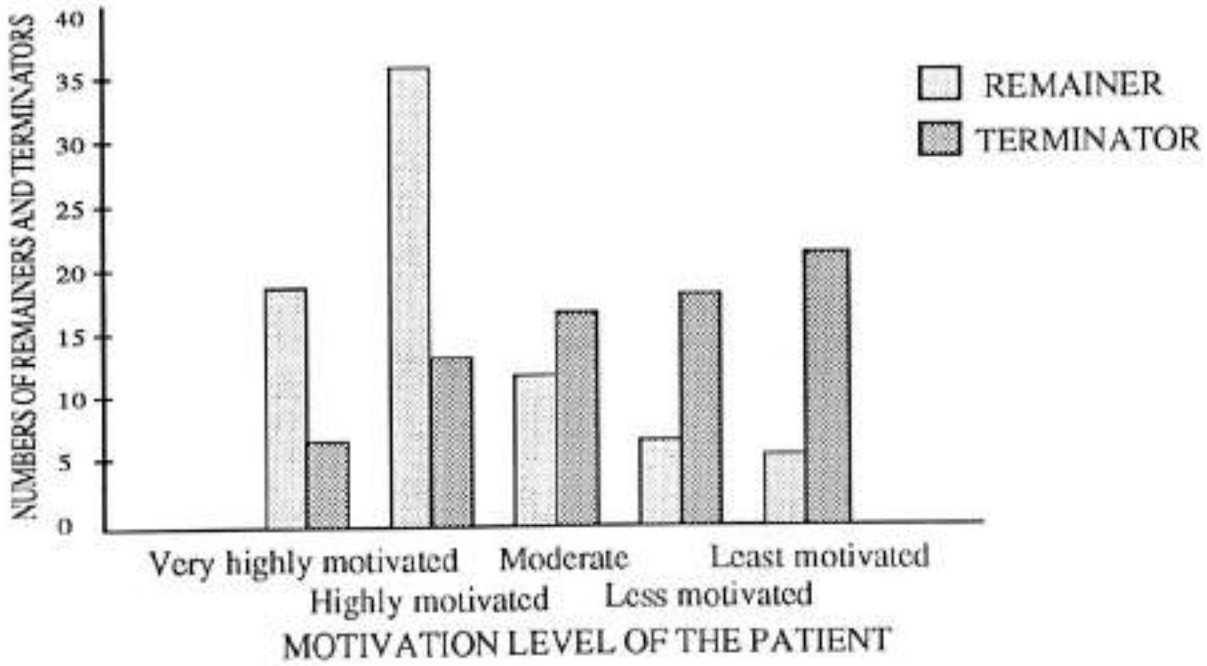


TABLE No. 3

EFFECT OF PREVIOUS PSYCHIATRIC EXPERIENCE
ON REMAINERS & TERMINATORS
IN PSYCHOTHERAPY

	Remainer	Terminator	Total
Previous Psychiatric Experience	54 (40.5 fe)	27 (40.5 fe)	81
No Previous Psychiatric Experience	21 (34.5 fe)	48 (34.5 fe)	69
TOTAL	75	75	150

$$X^2 = \frac{(Fo-Fe)^2}{Fe} \qquad X^2 = 19.56$$

Significant at 0.001 level

GRAPH C

EFFECT OF PREVIOUS PSYCHIATRIC EXPERIENCE ON
REMAINERS AND TERMINATORS IN PSYCHOTHERAPY

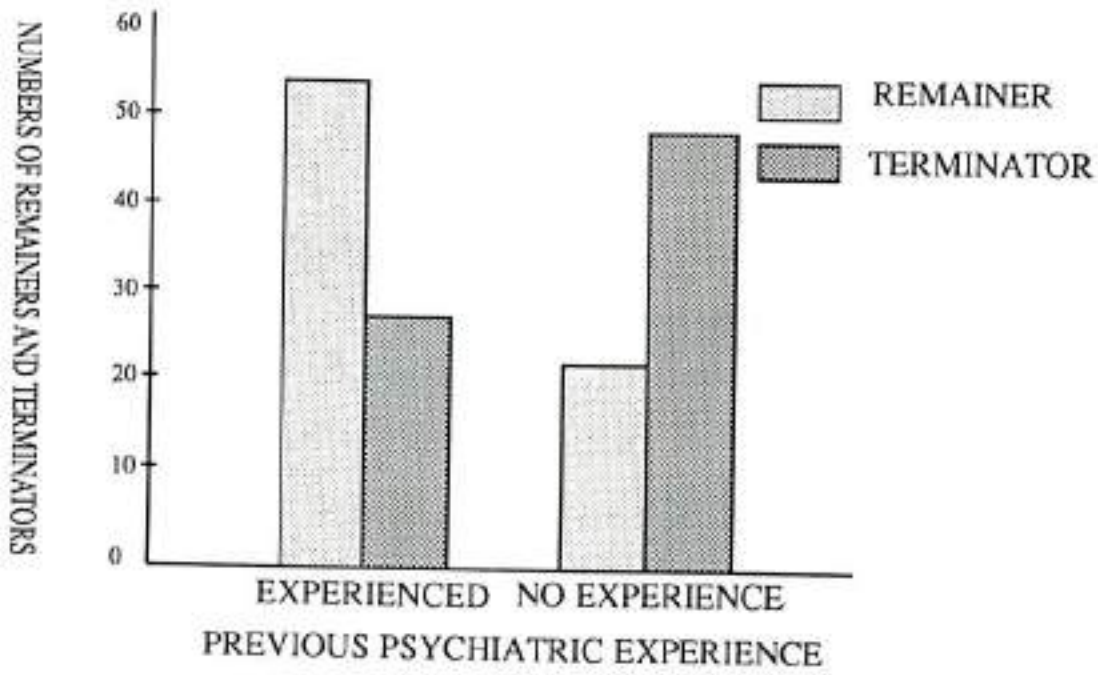


TABLE No. 4

EFFECT OF AGE
ON REMAINERS & TERMINATORS
IN PSYCHOTHERAPY

Years	Remainer	Terminator	Total
18 - 35	61 (48.5 fe)	36 (48.5 fe)	97
36 - 60	14 (26.5 fe)	39 (26.5 fe)	53
TOTAL	75	75	150

$$X^2 = \frac{(Fo-Fe)^2}{Fe} \qquad X^2 = 18.22$$

Significant at 0.001 level

GRAPH D

EFFECT OF AGE ON
REMAINERS & TERMINATORS IN PSYCHOTHERAPY

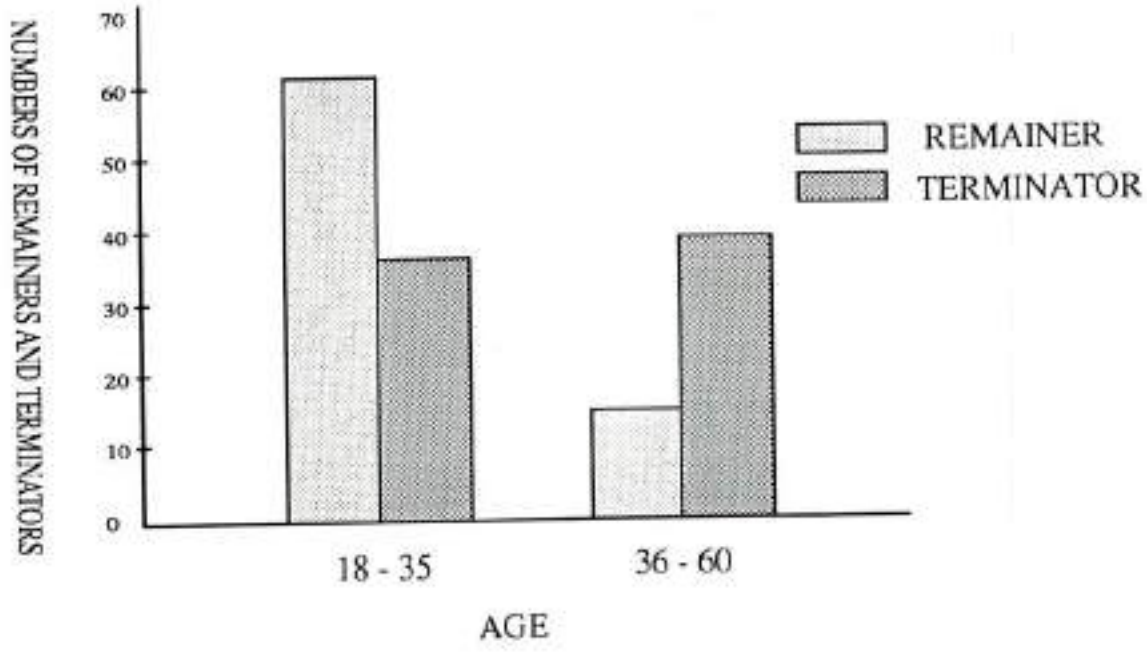


TABLE No. 5

"EFFECT OF SEX ON REMAINERS & TERMINATORS IN PSYCHOTHERAPY

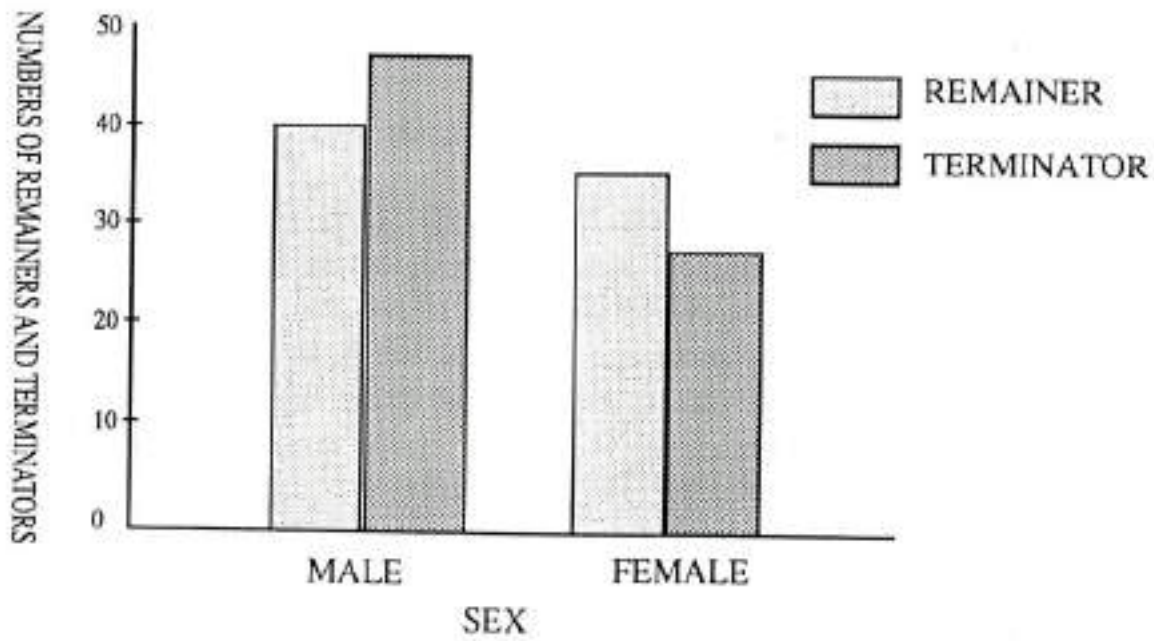
Sex	Remainer	Terminator	Total
MALE	40 (44 fe)	48 (44 fe)	88
FEMALE	235 (31 fe)	27 (31 fe)	62
TOTAL	75	75	150

$$X^2 = \frac{(Fo-Fe)^2}{Fe} \qquad X^2 = 1.76$$

Not Significant at 0.05 level

GRAPH E

EFFECT OF SEX ON
REMAINERS AND TERMINATORS IN PSYCHOTHERAPY



RESULTS

Hypothesis No. 1. If coming for psychotherapy involves greater conflict with job timings then there will be a greater likelihood of early termination.

The results of the statistical analysis are shown in Table No. 1 and Graph A. It may be noted that the chi square, (X^2=19.56, df=1, $p < .001$ level) indicates that therapy timings conflicting with job timings is a useful predictor of early termination. Those patients who have a greater conflict with job timings, education timings or with housework, in coming for psychotherapy are significantly more likely to be terminators. The chi-square required for significance was X^2=10.83, df=1, $p < .001$ level. The same results are further highlighted by the use of Graph A.

Hypothesis No. 2.Patients who come voluntarily for psychotherapy will remain longer in psychotherapy.

The results of the statistical analysis are shown in Table No. 2 and Graph B. It may be noted that the chi-square (X^2 = 31.76, df=4, $p < .001$ level) indicates this as a useful predictor of remaining in psychotherapy. Those patients who come voluntarily for psychotherapy are significantly more likely to be remainers. The chi-square required for significance was X^2 = 18.47, df=4, $p < .001$ level. The same is further highlighted by the use of Graph B.

Hypothesis No.3. Patients who have had previous psychiatric experience will remain longer in psychotherapy.

The results of the statistical analysis are shown in Table No.3 and Graph C. It may be noted from the chi-square (X^2 = 19.56, df=1, $p < .001$ level) that previous psychiatric experience is a powerful indicator of early termination. Those patients who had been using psychotropic drugs before they were referred for psychotherapy are significantly more likely to be remainers. The chi-square required for significance was X^2 = 10.83, df=1, $p > .001$ level. The same is further highlighted by the use of Graph C.

Hypothesis No.4. Younger patients (18-35 years) are more likely to remain longer in psychotherapy as compared to older patients (36-60 years).

The results of the statistical analysis are shown in Table 4 and Graph D. It may be noted that the chi-square ($X^2 = 18.22$, df=1, $p < .001$ level) indicates that age is also a strong indicator of early termination. Those patients who are young are significantly more likely to remain longer in psychotherapy as compared to older patients. The chi-square required for significance was $X^2 = 10.83$, df=1, $p < .001$ level. This is also highlighted through the use of Graph D.

Hypothesis No. 5. Female patients are more likely to remain longer in psychotherapy as compared to male patients.

The results of the statistical analysis are shown in Table 5 and Graph E. It may be noted that the chi-square($X^2 = 1.76$, df=1 , $p > 1.05$ level) indicates that sex is not an indicator of early termination. The variable of sex as a determinant of remainers and terminators in psychotherapy is not statistically significant. The chi-square required for significance was $X^2 = 3.84$, df=1, $p = .05$ level. The same results are further highlighted through the use of Graph E.

DISCUSSION

This study was undertaken to investigate certain personal factors related to the premature termination of psychotherapy.

Results obtained indicate that there are certain factors which contribute highly towards remaining in and terminating psychotherapy. Hypothesis No.1 stated that: "If coming for psychotherapy involves greater conflict with job timings then there will be a greater likelihood of early termination. " The effect of conflict with job or edcuation timings on Remainers and Terminators is significant as shown in Table No.1. The obtained chi-square is significant at $p < .001$ level.

In Pakistan it is difficult to get good and permanent jobs. There is a lot of hue and cry about joblessness due to lack of job opportunities. therefore, those people who have jobs consider it a great privilege and give it more importance than their personal ailments because it actually becomes a question of their survival. It is easier for an individual to ask for a week's leave at a time for some physiological illness, but it is difficult for them to explain to their employers that they have to go at a fixed time for some urgent piece of work twice or thrice a week. This problem also comes up because it is difficult for them to tell

their employers that they or their dependents are suffering from psychological problems due to the stigma attached to such ailments. It has also been observed that most of the patients who come for psychological treatment to the Institute of Clinical Psychology, prefer to take a certificate from a medical doctor for any kind of physical illness rather than taking a certificate for leave from a psychotherapist. Therefore in the light of the results obtained it can be concluded that the above hypothesis has been supported and the factor of conflict with job timings will negatively effect the longevity of treatment.

Hypothesis No.2 states that: "Patients who come voluntarily for psychotherapy will remain longer in psychotherapy."

Coming voluntarily for treatment has been defined as an index of the motivational level of the patient by the author in the scale used to assess motivation.

Motivation has been mentioned frequently as an important variable in psychotherapy (Garfield, 1980; Malan, 1976). It is clear that the strength of the patient's reasons for treatment regardless of their source, influence whether he opts to stay in it or not. These may include his ability to endure frustration and form long-range goals, his dissatisfaction with himself alongwith a need to change,and a felt need for help on his part as opposed to that of a referring institution or agency.

Motivation as a variable related to remaining in treatment is a measure of the patient's awareness of both his need for help and his desire for it. As per Table No. 2, the effect of the motivation level of the patient on remaining in psychotherapy has proved to be highly significant. The significance level obtained is $p < .001$ level.

Patients who come voluntarily for treatment, are highly motivated because of the fact that they have the conviction that therapy is going to help them. These patients come for psychotherapy with the expectation that they are going to see an expert in therapy. This expectation reflects their level of dependency even prior to their contact with the therapist. This dependency level ensures longevity of stay in psychotherapy.

Hypothesis No. 3 states: "Patients who have had previous psychiatric experience

are more likely to remain longer in psychotherapy."

As seen from Table No. 3 the effect of previous psychiatric experience on remaining in therapy is highly significant. The statistical significance obtained is at $p < 0.001$ level.

Many people in our culture have now realized that drugs alone cannot treat mental illness and psychotherapy is becoming a known mode of treatment for psychological problems. Although this is a well known fact many people have had a long prior experience of going from one psychiatrist to another and having to take very high dosages of medication. Such individuals have probably realized, more than others, the evil of overmedication which results in lethargy, incapacitation and worthlessness in the patient. Therefore, when they come for psychotherapy and get relief without having to take large doses of psychotropic drugs and in some cases even total elimination of drugs due to the effectiveness of psychotherapy then they are probably more inclined to remain in therapy. Even the families of the patients are tired of the drug treatment and are more than pleased to have a treatment which does not involve extra expenditure of drugs and ill effects of the medication.

Hypothesis No. 4 states: "Younger patients (18-35 years) are more likely to remain longer in psychotherapy as compared to older patients (36-60 years)."

As per Table No.4 it is evident that age is an important determinant of remaining in psychotherapy. Statistical significance was found at $p < 0.001$ level. It has been established that younger patients (18-35 years) are more likely to remain longer in psychotherapy as compared to older patients (36 - 60 years).

It has generally been assumed that older people tend to be more rigid and fixed in their ways. Their patterns of behaviour have a longer reinforcement history and supposedly their defenses and character structure are more resistant to change. We know from some systematic studies that older patients show some decline in mental functioning (Matarazzo, 1972) and that they may not learn new skills as readily as younger individuals. Consequently, the older patients probably benefit less from psychotherapy and terminate earlier.

It is also important to note here that in the Institute of Clinical Psychology most of the therapists are student therapists and therefore the older people may

find it hard to maintain confidence in the capability of the therapist especially in a culture like Pakistan's where respect for age is tremendous.

Hypothesis No. 5 states: "Female patients are more likely to remain longer in psychotherapy as compared to male patients."

As per Table No. 5 it is evident tht the variable of sex as a determinant of Remainers and Terminators in psychotherapy is not statistically significant at $p < .05$ level. There are thus no statistically significant differences between males and females in terms of premature termination.

It is noticeable (Table 5) that out of a sample of 88 males, 40 were remainers, i.e. 45% of male patients remained in therapy; whereas in the sample of 62 females, there were 35 remainers, i.e. 56% of female patients remained in therapy. This shows that though not statistically significant, there is a trend towards females remaining in psychotherapy for a longer time as compared to males.

REFERENCES

Adams, R.G., Canel,W.C., Bloom,W.A. and Stewart,G.T. Herion addicts on methadone replacement: A study of dropouts. International Journal of the Addictions, 1971, 6, 269-277.

Affleck,D.C. and Garfield, S.L. Predictive judgements of therapists and duration of stay in psychotherapy. Journal of Clinical Psychology, 1961, 17, 154-157.

Altman, H., Brown, M.L. and Sletten, J.W. And silently steal away. Diseases of the Nervous System, 1972, 33, 52-58.

Altman, H., Angle, H.V., Brown,M.L. and Sletten,W. Prediction of unauthorised absence. American Journal of Psychiatry, 1972, 128, 1460-1463.

Babst,D.V., Chambers,C.D. and Werner,A. Patient characteristics associated with retention in a methadone maintenance program. British Journal of Addiction, 1971, 60, 195-204.

Backland, F. and Lundwall, L. Dropping out of treatment : A critical review. Psychological Bulletin, 1975, 82, 738-783.

Backland,F., Lundwall,L., and Shanahap,T.J. Correlates of patient attrition in the outpatient treatment of alcoholism. Journal of Nervous and Mental Disease, 1973, 157, 99-107.

Baer, P.E., Dunbar,P.W., Hamilton,J.E. II, and Beutler, L.E. Therapists perceptions of the psychotherapeutic process. Development of a psychotherapy process inventory. Psychological Reports, 1980, 46, 563-570.

Bailey, MA., Warshaw,L. and Eichler,R.M. A study of factors related to length of stay in psychotherapy. Journal of Clinical Psychology, 1959, 15, 442-444.

Betz,N.E. and Shullman,S.L. Factors related to client return rate following intake. Journal of Counselling Psychology, 1979, 26, 542-545.

Beutler,L.E. More sources of variance: A reply to Chicchetti and Ryan. Journal of Consulting and Clinical Psychology. 1976, 44, 860-861.

Beutler,L.E., Johnson, D.T., Neville,C.W.,Jr,. and Workman,S.N. Some sources of variance in "accurate empathy" ratings. Journal of Consulting and Clinical Psychology, 1973, 40, 167-169.

Blanc,H.T. and Meyers,W.R. Behavioral dependence and length of stay in psychotherapy among alcoholics. Quarterly Journal of studies on Alcohol, 1963, 24, 503-510.

Brandt,L. Studies of dropout patients in psychotherapy: A review of findings. Psychotherapy: Theory, Research and Practice. 1965, 2, 6-12.

Brown, J.S. and Kosterlitz, N. Selection and treatment of psychiatric outpatients. Archives of General Psychiatry, 1964, 11, 425-438.

Caine,T.M., Wijesinghe,B. and Wond,R.R. Personality and psychiatric treatment expectancies. British Journal of Psychiatry, 1973, 122, 87-88.

Calden,G., Lewis, W.C., Lorena,T.H., and Thurston. J.R. Action research in the psychology of the tuberculosis patient. The problem of irregular discharge. InP.J. Sparer (Ed), Personality, stress and tuberclosis. New-York: International Universities Press, 1956.

Caldwell, J.R., Cobbs,S., Dowling,M.D. The dropout problem in antihypertension treatment. Journal of Chronic Disease, 1970, 123, 579-592.

Cancro,R. Elopement from the C.F. Menninger Memorial Hospital, Bulletin of the Menninger Clinic, 1968, 32, 228-238.

Cartwright,D.S. Sucess in psychotherapy as a function of certain actuarial variables. Journal of Consulting Psychology. 1955, 19, 357-363.

Craig,T., and Huffine,C. Correlates of patients attendence in an inner-city mental health clinic. The American Journal of Psychiatry. 1976, 133, 61-64.

Cusky,W.R., Chambers,C.D. and Wieland, W.F. Predicting attrition during the outpatient detoxification of narcotic adicts. Medical Care, 1971, 9, 108-116.

Daniels,R.S., Margolis,P.M. and Carson,R.C. Hospital discharge against medical

advice. Archives of General Psychiatry, 1963, 8, 120-130.

Dodd,J. A retrospective analysis of variables to duration of treatment in a unversity psychiatric clinic. Journal of Nervous and Mental Diseases, 1971, 151, 75-85.

Dowing,R.W., Rickels,K. and Horn,N.L. Hostility conflict in neurotic patients who prematurely terminate drug treatment. Journal of Nervous and Mental Disease, 1970, 151, 211-218.

Drolet,G.J. and Porter,D.E. Why patients in tuberculosis hospitals leave against medical advice. New-York: Tuberculosis and Health Association, 1949.

Eiduson, B.T. The two classes of information in psychiatry. Archives of General Psychiatry, 1968, 18, 405-419.

Epperson,D.L. Counselor gender and early premature terminations from counselling. A replication and extension. Journal of Counseling Psychology, 1981, 28, 349-356.

Errera,P.< Mckee, B., Smith,D.C. and Grober, R. Length of psychotherapy. Archives of General Psychiatry, 1967, 17, 454-458.

Frank,J.D. Immediate and long term symptomatic couse of psychiatric outpatients. American Journal of Psychiatry, 1963, 120, 429-439.

Frank,J.D., Gliedman,L.H., Imber,S.D., Nash,E.H., Jr and Stone,A.R. Why patients leave psychotherapy. Archives of Neurology and Psychiatry, 1957, 77, 283-299.

Fraps,C.L. Predicting client attrition from psychotherapy through behavioral assessment procedures and a critical response approach. Journal of Clinical Psychology, 1982 (October), Vol 38(4), 759-764.

Freedman, N., Engelhardt, D.M., Hankoff, L.D., Click, B.S., Kaye, H., Buchwald, J., and Stark,P. Dropout from outpatient psychiatic treatmen. Archives of Neurology and Psychiatry, 1958, 80, 657-666.

Garfield, S.L. Psychotherapy: An Eclectic Approach. New York: John Wiley and Sons, 1980.

Garfield, S.L. & Wolpin, M. Expectations regarding psychotherapy. Journal of Nervous and Mental Disease, 1963, 137, 353-362.

Garfield, S.L. and Affleck, D.C. A study of psychotherapy interaction and continuation of psychotherapy. Journal of Clinical Psychology, 1963, 19, 473-478.

Garfield, S.L., and Affleck, D.C. An apraisal of duration of stay in outpatient psychotherapy. Journal of Nervous and Mental Disease, 1959, 129,492-498.

Gerrein, J.R., Rosenberg, C.M. and Manohar, V. Disulfram maintenance in outpatient treatment of alcoholism. Archives of General Psychiatry, 1973,

28, 298-302.

Goldfried, M.R. Prediction of improvement in an alcoholism out patient clinic. Quarterly Journal of Studies on Alcohol, 1969, 30, 129-139.

Goldstein, A.P. and Stein, N. Prescriptive Psychotherapies. New York: Pegamon, 1976.

Goldstein, A.P. Structured Learning Therapy: Towards a psychotherapy for the poor: New York : Academic Press, 1973.

Gomes - Schwartz, B. Effective ingredients in psychotherapy: Prediction of outcome from process variables. Journal of Consulting and Clinical Psychology, 1978, 46, 1023-1035.

Gottschald, L.A., Mayerson, P., Gottleb, A.A. Prediction and evaluation of outcome in an emergency brief psychotherapy clinic. Journal of Nervous and Mental Disease, 1967, 144, 77-96.

Greenwald, A.. and Bartemeier, L.H. Psychiatric discharges against medical advice. Origin and prevention. Archives of General Psychiatry, 1963, 8, 117-119.

Gurman, A.S. Instability of therapeutic conditions in psychotherapy. Journal of Counseling Psychology, 1973, 20, 16-24.

Heilbrun, A.B., Jr. Prediction of rehabilitation outcome in chronic court cases. Quarterly Journal of Studies on Alcohol, 1971, 32, 328-333.

Heilbrun, A.B., Jr. Clients personality patterns, counselor dominance, and duration of counseling. Psychological Reports, 1961, 9, 15-25.

Heilbrun, A.B. Jr. History and self disclosure in females and early defection from psychotherapy. Journal of Counseling Psychology, 1973,20, 250-257.

Hoffman, J. Client factors related to premature termination of psychotherapy. Psychotherapy, 1985 (Spr), Vol 22(1), 83-85.

Holt, W.E. The concept of motivation for treatment. American Journal of Psychiatry, 1967, 123, 1388-1394.

Hunt, R.G. Occupational status and the disposition of cases in a child guidance clinic. International Journal of Social Psychiatry, 1962, 8, 199-210.

Karon, B.P. and Vandenbos, G.R. Psychotherapy of Schizophrenia: The Treatment of Choice. New York: Jason Aronson, 1981.

Karp, S.A., Poster, D.C. and Goodman, A. Differentiation in alcoholic women. Journal of Personality, 1963, 31, 386-393.

Kissin, B., Platz, A. and Su, W.H. Social and psychological factors in the treatment of chronic alcoholism. Journal of Psychiatric Research, 1970, 8, 13-27.

Kolb, D. An examination of psychotherapy process and outcome: The roles of

patient locus of control and perception of the quality of the therapeutic relationship and involvement in therapy. Unpublished doctoral dissertation, University of Iowa, 1981.

Kotkov, B. Favourable clinical indications for group attendance. International Journal of Group Psychotherapy. 1958, 8, 419-427.

Krauskopf,C.J., Baumgarden, A., and Mandracchia, S. Return rate following intake revisited. Journal of Counseling Psychology, 1981,. 28, 519-521.

Lake, M., and Levinger, G. Continuance beyond application: interview at a child guidance clinic. Social Caseword, 1960, 41, 303-309.

Lambert, M.J. and Dejulio, S.S. The relative importance of client, therapist and technique variables as predictors of psychothrapy outcome: The place of therapist "non-specific" factors. Paper presented at the annual mid - winter meeting of the division of Psychotherapy. American Psychological Association, Scottsdale, March 1978.

Levine, D.C., Levin, D.B., Slone, I.H. and Chapel, J.N. Personality correlates of success in a methadone maintenance program. American Journal of Psychiatry, 1972, 129, 456-460.

Levitt, E.E. A comparative judgemental study of defection from treatment at a child guidance clinic. Journal of Clinical Psychology, 1958, 14, 429-432.

Levitt, F.F. A comparision of "remainers" and defectors among child clinic patients. Journal of Consulting Psychology, 1957, 23, 316.

Lewis, W.C., Lorenz, T.H. and Caldin, G. Irregular discharge from tuberculosis hospitals. A major unsolved problem. Psychosomatic Medicine, 1955, 17, 276-290.

Lowinger, P. and Dobie, S. The attitudes of the psychiatrist about his patient. Comprehensive Psychiatry, 1968, 9, 627-632.

Malan, D.H. The frontiers of brief psychotherapy: An example of the convergence of research and clinical practice. New York: Plenum ,1976.

Magnavita, J.J. The predictive relationship between attitudes toward seeking professional psychological assistance, selected variables and the early premature termination of counseling/psychotherapy. Dissertation Abstracts International,, Vol. 42, No. 6, December 1981.

Mayer, J. Initial alcoholism clinic attendance of patients with legal referrals. Quarterly Journal of Studies on Alcohol, 1972, 33, 814-816.

Mayer, J., Needham, M.A., and Myerson, D.J. Contract and initial attendance at an alcoholism clinic. Quarterly Journal of Studies on Alcohol, 1965, 26, 480-485.

McNair, D.M., Kahn,R.J., Droppleman,L.F. and Fisher, S. Compatibility

acquiescence and drug effects. In H. Brill, Cole,P., Deniker, H., Hippins, and P.B.Bradley (Eds). Neuropsychopharmacology, New York: Execrpta Medica Foundation, 1967.

Mendelsohn, G.A. and Geller, M.H. Similarity, missed sessions and early termination: Journal of Counseling Psychology, 1967, 14, 210-215.

Meyer, E., Spiro, H.R., Slaughter, R., Pollack, J.W., Weingarther, H. and Novey, S. Contractually time-limited psychotherapy in an outpatient psychosomatic clinic. American Journal of Psychiatry, 1967, 124, (Supplement) 57-66.

Meyer, G.G., Martin,J.B. and Lange,P. Elopement from the open psychiatric unit: A two year study. Journal of Nervous and Mental Disease, 1967, 144, 297-304.

Miller, B.A., Pokorny, A.D. and Hanson, P.G. A study of dropouts in an inpatient alcoholism treatment program. Diseases of the Nervous System, 1968, 29, 91-99.

Miller, B.A., Pokorny, A.D., Valles, J. and Cleveland, S.E. Biased sampling in alcoholism treatment research. Quarterly Journal of Studies on Alcohol, 1970, 31, 91-107.

Nagpaul D.R., Vishmanath, M.K. and Dwatakanath, G. A socio-epidemiological study of outpatients attending a city tuberculosis clinic in India to judge the place of specialized centres in a tuberculosis contract programme. Bulletin of the World Health Organization, 1970, 43, 17-34.

Newman, J. and Sparer,P.J. Verbal behavior and other correlates of adjustment to hospitalization among tuberculosis patients. In P.J. Sparer (Ed). Personality, stress and tuberculosis, New York: International University Press, 1956.

Newman, R.G. and Kagen,J.G. The York city methadone maintenance treatment program after two years - An overview. Proceedings of the Fifth National Conference on Methadone Treatment, 1973, 1, 794-801.

Perkins, M.E. and Bloch, H.I. A study of some failures in methadone treatment. Americal Journal of Psychiatry, 1971, 128, 47-51.

Pisani, V.D. and Motansky, G.U. Predictors of premature temination of out patient follow-up group psychotherapy among male alcoholics. International Journal of the Addictions, 1970, 5, 731-737.

Pittman, D.J. and Sterne, M. Concept of motivation: Sources of institutional and professional blockage in the treatment of alcoholics. Quarterly Journal of Studies on Alcohol, 1965, 26, 41-57.

Raynes, A.E. and Patch, V.D. Distinguishing features of patients who dischage themselves from a psychiatric ward. Comprehensive Psychiatry, 1971, 12, 473-479.

Raynes, A.E., Fische, A., Levine,M.E., McKenna, G.J. and Patch, V.D. Evaluation of hospital detoxification using various outcome criteria. Proceedings of the Fifth National Conference on Methadone Treatment, 1973, 1, 675-681.

Raynes, A.E., Patch, V.D. and Fische, A. Distinguishing features of heroin addicts benefiting from detoxification. Proceedings of the Fourth National Conference on Methadone Treatment, 1972, 465-467.

Rickels,K. Non specific factors in drug therapy. Springfield, Illinois: Charles C. Thomas, 1968.

Rickels,K and Anderson,J. The low socio-economic psychiatric outpatient (patient reactions to drug therapy). Diseases of the Nervous System 1969, 30, 322-327.

Riess, B.F. and Brandt, L.W. What happens to applicants for psychotherapy. Community Mental Health Journal, 1965, 1, 175-180.

Ripple, L. Factors associated with continuance in casework service. Social Work, 1957, 2, 87-94.

Ripple, L. and Alexander, E. Motivation, capacity and opportunity as related to the use of casework service: Nature of client's problem. Social Service Review, 1956, 30, 38-54.

Robson, R.A.H., Paulus,I. and Clarke, G.C. An evaluation of the effect of a clinic treatment program on the rehabilitation of alcoholic patients. Quarterly Journal of Studies on Alcohol, 1965, 26, 264-278.

Rosenthal, D. and Frank, J.D. The fate of psychiatric clinic outpatients assigned to psychotherapy. Journal of Nervous and Mental Diseases, 1958, 127, 330-343.

Ross, A.O. and Lacey,H.M. Characteristics of terminators and reminers in child guidance treatment. Journal of Consulting Psychology, 1961, 25, 420-424.

Sells, S.B., Chatham,I.R., and Joe,G.W. The relation of selected epidemiological factors to retention in methadone treatment. Porceedings of the Fourth National Conference on Methadone Treatment. 1972, 88-90.

Sethna,E.R. and Harrington,J.A. A study of patients who lapsed from group psychotherapy. British Journal of Psychiatry, 1971, 119, 59-69.

Shelton, N.W., and Sparer,P.J. The basic problem of self discharge among hospitalized tuberculosis patients. In P.J.Sparer (Ed), Stress, Personality and Tuberculosis. New-York International University Press, 1956.

Straker,M. Brief psychotherapy in an outpatient clinic. Evolution and evaluation. American Journal of Psychiatry. 1968, 124, 1219-1225.

Strickland,B.R. and Crowne, D.P. Need for approval and the premature termination of psychotherapy. Journal of Consulting Psychology, 1963, 27,

95-101.

Struppp,H.H. Psychotherapy Research and Practice:An overview. In Garfield and Bergin (Ed):Handbook of Psychotherapy and Behaviour Change: An Empirical Analysis. New York: John Wiley and Sons, 1978, 9-10.

Turner, R.J., Gardner,E.D. and Higgins,A.C. Epidemiological data for mental health center planning. Field survey methods in psychiatry: The problem of the lost population. American Journal of Public Health, 1970, 60, 1040-1051.

Voth,A.C. Autokinesis and alcoholism. Quarterly Journal of Studies of Alcohol, 1965, 26, 412-422.

Weiss,J. and Schale,K.W. Factors in patient failure to return to clinic. Diseases of the Nervous System, 1958, 19, 429-430.

Wieland, W.F. and Novack, J.L. A comparision of criminal justice and noncriminal justice related patients in a methadone treatment program. Proceedings of the Fifth National Conference on Methadone Treatment. 1973, 1, 116-122.

Williams, H.R. and Johnston, B.A. Factors related to treatment retention in a methadone maintenance program. Proceedings of the Fourth National Conference on Methadone Treatment, 1972, 439-442.

Williams, R. and Pollack, R.H. Some non-psychological variables in therapy defection in a child guidance clinic. Journal of Psychology, 1964, 58, 145-155.

Witkin,H.A., Dyd,R.B., Paterson, H.F., Goddenough, D.R., and Karp, S.A. Psychological Differentiation, New York: Wiley, 1962.

Zax,M. The incidence and fate of the reopened case in an alcoholism treatment center. Quarterly Journal of Studies on Alcohol., 1962, 23, 634-639.

Zax, M., Marsey,R. and Biggs,C.F. Demographic characteristics of alcholic outpatients and tendency to remain in treatment. Quarterly Journal of Studies on Alcohol, 1961, 22, 98-105.

APPENDIX -I

Motivation

This scale measures the extent to which the internal states of the individual lead to the instigation, persistence and includes the goal direction and energizing of behavior of coming to psychotherapy.

i) Very Highly Motivated: Extremely worried about his/her problems, intense urge and willingness to come for psychotherapy voluntarily, seeks strong approval, acceptance and is very much concerned about his/her problems.

ii) Highly Motivated: Frequently worried about his/her problems, strong urge and willingness to come for psychotherapy voluntarily, often seeks approval and acceptance and is quite concerned about his/her problems.

iii) Moderately Motivated: To some extent worried about his/her problems, moderate urge and willingness to come for psychotherapy voluntarily, sometimes seeks approval and acceptance and is concerned about his/her problems.

iv) Less Motivated: Not quite worried about his/her problems, very little urge and willingness to come for psychotherapy voluntarily, does not seek approval and acceptance and is unconcerned about his/her problems.

v) Least Motivated: Not worried about his/her problems, complete absence of urge and willingness to come for psychotherapy voluntarily, ignores approval and acceptance from others, unconcerned about his/her problems and fully satisfied with the present situation.

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CASE HISTORY AND TREATMENT OF A CASE OF A CONVULSION DISORDER

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Institute of Clinical Psychology
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Introduction:

Rashida, a 29 years old single girl was working in an airline. She was a graduate from an English medium college and came from an upper middle class family of Karachi.

Case History:

Rashida's father died when she was only 10 years old. Her mother kept the custody of the child as the father had married her mother against the wishes of his own family. Being the only child she was very pampered by the parents in early childhood but received a rude shock when her father died in a motor car accident. Her mother was an educated lady and was teaching in a school apart from being supported by her two unmarried brothers. Hence Rashida overcame the shock of her father's death as the maternal uncles began to shower all their affection on her. After her graduation, the family received many proposals for her marriage. Some of them were very attractive but somehow or the other Rashida declined to accept any one of them. The mother tried to convince her in the beginning and requested her to get married but her constant denials led to a very unpleasant relationship between the mother and herself. Even the uncles withdrew all love and support.

At the age of twenty four Rashida joined an airline service without the consent of her mother and her uncles. She travelled all over the world because of her profession and became highly independent in her thinking. During one of the flights she had an unpleasant love experience with a stranger who pretended that he will marry her ultimately but she came to know that this man is already married and has four children. After this she began to have severe

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PARENTAL RELATIONSHIP AND PEER USE OF SUBSTANCE AS PSYCHOSOCIAL RISK FACTORS OF HEROIN ABUSE IN PAKISTAN

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ABSTRACT

In the present investigation it was hypothesized that parental relationship and peer use of substance function as psychological risk factors of heroin abuse. Research design was formulated after conducting a pilot study on the above mentioned investigation of psycho-social risk factors of heroin abuse in Pakistan.

A sample of one hundred subjects comprising of fifty heroin abusers and fifty matched non-users was taken. The data was collected from the psychiatry ward of the Civil Hospital Karachi.

The psychosocial risk factors studied were assessed on the basis of information derived through intensive interviews, specially designed questionnaires, and Thematic Apperception Test (TAT) pictures.

A chi-square test of independence was applied for the statistical analysis of the data. Results obtained indicated that abusers perceived low positive parental relationship significantly more as compared to non-users. There was also a greater tendency among users to perceive peer use of substances as compared to non-users.

INTRODUCTION

The primary social environment of the child comprises of the parents and the family members. In the course of socialization the child is also influenced by peers and groups or sub-cultures. A review of the Western literature on drug dependence reveals that this phenomenon is a function of multiple factors. Researchers have shifted their attention from the addictive personality to various psycho-social risk factors that are accountable for drug abuse. Family misuse of drugs, poor relations with parents and peer use of substance have been found to be risk factors of drug abuse alongwith a number of other psycho-social risk factors of drug abuse (Bry, 1983).

An important risk factor (Streit, 1973) is the perception that one's family is not close to one. Persons who feel that great psychological distance exists within their families are at greater risk for drug abuse than in the general population.

Family Factors

Family factors are strongly implicated in the etiology of adolescent drug abuse. To the extent that adolescent drug abuse is part of the constellation of deviant behaviours, including delinquency, the literature on the prediction of delinquency appears salient. Among the most important childhood predictors of delinquency are the measures of family functioning (Loeber and Dishion, 1983), parental family management techniques (West and Farrington, 1973; Baumrind, 1983), and parental criminality or antisocial behaviour (Langner et al., 1983; Loeber and Dishion, 1983; Osborn and West, 1979). Disruptions in family behaviour management are a major mediating variable for antisocial behaviour in children (Patterson, 1982). Variables associated with antisocial problems include households that are disorganized and have poorly defined rules and inconsistent, ineffective family management techniques. In a sample of 195 boys, Loeber and Schmaling (unpublished research) found that boys who engaged in both overt antisocial behaviours (fighting) and covert antisocial behaviours (e.g. stealing and drug use) came from families with the greatest disturbance in child-rearing practices.

Looking more specifically at adolescent drug use, positive family

relationships, involvement, and attachment appear to discourage youth's initiation into drug use (Adler and Lutecka, 1973; Wechsler and Thum, 1973; Shibuya, 1974; Jessor and Jessor, 1977; Kim, 1979). Kandel (1982) found that parental influence varies with the stages of drug use she identified. Parental role modeling of alcohol use is positively associated with adolescent use of alcohol, while the quality of the family relationship is inversely related to the use of illicit drugs other than marijuana. According to Kandel, three parental factors help to predict initiation into drug use: parent drug using behaviours; parental attitudes about drugs; and parent-child interactions. The latter factor is characterized by lack of closeness (Mercer et al., 1976; Kandel et al., 1978; Brooks et al., 1980), lack of maternal involvement in activities with children, lack of, or inconsistent, parental discipline (Braucht et al., 1973; Blum et al., 1972; Baumrind, 1983; Penning and Barnes, 1982), and low parental educational aspirations for their children. Stanton and Todd (1979) and Ziegler-Driscoll (1979) suggest that familial risk factors include high rates of parental substance use and a pattern of overinvolvement by one parent and distance or permissiveness by the other. Similarly, families with drug abusing children are described by Kaufman and Kaufman (1979) as ones in which fathers are "disengaged" and mothers are "enmeshed".

Baumrind (1983) classified parenting styles as authoritative, authoritarian, or permissive, and found that children who are highly prosocial and assertive generally come from authoritative families. She suggests that family antecedents which discriminate types of drug users include conventionality, family disruption, and parent non-directiveness. Reilly (1979) found that common characteristics of families with adolescent drug abusers included negative communication patterns (criticism, blaming, lack of praise), inconsistent and unclear behavioural limits, denial of the child's drug use, unrealistic parental expectations, family medication, and miscarried expressions of anger.

Some studies have associated parental substance use with drug use by adolescents. While Kandel notes that marijuana use by peers is a better predictor of subsequent involvement with drugs than parents' use (Kandel 1973, 1974, 1975), she found parental self-reports of substance use to be related to initiation of use by their adolescent children (Kandel et al., 1978). Similar findings have been reported for adolescent drinking habits (Rachel et al., 1980). A consistent correlation between adolescent drug abuse and parents' use of alcohol and other

legal drugs also has been shown (Bushing and Bromley, 1975; Lawrence and Velleman, 1974). A review by Stanton and Todd (1979) showed that a disproportionate number of heroin addicts have fathers with drinking problems (Cannon, 1976; Ellinwood et al., 1966), that marijuana users frequently have fathers who use alcohol and tobacco and mothers who use tranquilizers (McGlothlin, 1975), and that parents of marijuana users have elevated rates of tranquilizer, barbiturate, and stimulant use (Smart and Fejer, 1972). Importantly, Tec (1974) found that parental drug use in a rewarding family structure only slightly promotes extensive marijuanna use, while in an unrewarding context there is a clearer association between drug use by parents and their children.

Little research has been conducted on other forms of parental behaviour and adolescent drug use and abuse. Several studies have suggested a relationship between child abuse and delinquency (Timberlake, 1981; Steele, 1976; Pfouts et al., 1981; Garbarino, 1981). When case records of abused and negected children were reviewed over 12 years later, 30% were discovered to be delinquent or in need of supervision (Alfaro, 1976). Excessively severe, physically threatening, and physically violent parental discipline have been associated with aggressive and destructive acts of delinquency (Deykin, 1971; Shore, 1971; Haskell and Yablonsky, 1974). However, apparently no longitudinal studies assessing the impact of child abuse on subsequent drug use and abuse have been conducted.

While some researchers have found that non-intact families predict subsequent drug use (Robins, 1980; Baumrind, 1983; Penning and Barnes, 1982), there is disagreement on this point. Family structure appears to be less important as a predictor of delinquency than attachment to parents (Nye, 1958; Sederstrom, 1978; Wilkinson, 1974; Weis et al., 1980).

To summarize, the findings are consistent regarding the effects of the quality and consistency of family management, family communication and parent role modeling on children's drug use (Baumrind, 1983; Patterson, 1982; Mercer at al., 1976; Kandel et al., 1978; Penning and Barnes, 1982). Given the consistency of these findings, family management, communication and role modeling represent risk factors which should not be ignored in developing theories of the etiology of adolescent drug initiation and abuse or in prevention research.

There is disagreement as to the relative strength of the early childhood predictors discussed earlier. Loeber and Dishion (1983) assert that, on the whole, composite measures of family management techniques appear to be stronger early age predictors of subsequent delinquency, while Robins (1980) asserts that prior misconduct is a stronger predictor of antisocial behaviour than family disorders. It should be noted, however, that Robins did not have access to independent prospective measures of families functioning and management. Langner and associates (1983) argue that prior antisocial behaviour is a better predictor of later behaviour, but that family environment variables are better predictors of later adverse outcomes in school or with the police. These differnces in emphasis across studies may reflect different measurement approaches. Alternatively, it is possible that early behaviour is a more proximate variable to later behaviour which mediates between family characteristics and the later behaviour. Regardless, it would appear that interventions seeking to prevent either substance abuse by adolescents or the early onset of substance use should include a focus on family factors during preadolescence.

In a survey of twelve hundred college students, Blum and associates (1970) uncovered interesting relationships between the use of medicines and substances in family of origin and subsequent substance abuse. For some time, it had been known that family alcohol problems increase the probability of substance abuse (Templer et al., 1974), but their research suggested that family use of legitimate drugs also increases substance abuse. College students were more likely to report illicit drug use if, as children, they (a) had received strong pain killers such as percodan or codeine, (b) had received a prescription of psychotropic drugs, or (c) had made "considerable" use of non-prescription preparations (aspirin, Nodoz, Compoz). In addition, students whose parents were "quick to give medicines and who pampered them when they were sick" were more likely to report illicit substance use. The magnitude of this relationship can be seen by the fact that 56 percent of those who used aspirin or Compoz heavily as a child were using illicit sedatives in college; whereas only 18 percent of those who had used aspirin sparingly reported current illicit use.

Poor Relationship with Parents

Blum and his associates (1970) came across evidence of this precursor

when they unexpectedly found that young people with the highest proportion of drug use reported that their parents showed little interest in their general health. Streit (1973) followed this up with exploring dimensions of child-parent relationships that best differentiated abusers from non-abusers. He found that extremes along a hostility-love dimension and an autonomy-control dimension were most important. Too much parental permissiveness and too much parental control both increased the likelihood that subjects would report "my family is not very close" and also very high drug use. Hendin et al. (1981) confirmed these results in representative case studies of 17 marijuana abusing adolescents and 11 of their non-abusing siblings. The results indicated that either due to too high expectations or withdrawal of love on the parents part, the abusers felt more alienated and unhappy in their families than their non-abusing siblings did. The researchers were also able to show that this sense of ostracism had preceded the substance abuse.

Peer Factors

Association with drug-using peers during adolescence is among the strongest predictors of adolescent drug use (Akers 1977; Akers et al. 1979; Elliott et al., 1982; Hirschi, 1969; Jensen, 1972; Jessor et al., 1980; Kandel and Adler, 1982; O'Donnel and Clayton, 1979; Kandel,1982; Catalano, 1982; Huba et al., 1979; Meier and Johnson, 1977; Ginsberg and Greenley, 1978; Orcutt, 1978; Smart et al., 1978; Jessor and Jessor, 1977; Goldstein, 1975; O'Donnell et al., 1976; Kaplan et al., 1982). Drug behaviour and drug related attitudes among peers are among the most potent predictors of drug involvement (Kandel, 1978). Peer influences are particularly important for initiation into the use of marijuana (Kandel et al., 1978). Perceived use of substance by others is also strong predictor of use (Jessor and Jessor, 1977; Robins and Ratcliff, 1979; Kandel et al., 1978).

In their longitudinal study of the National Youth Panel, Ellott et al. (1982) found that social bonds to family and school influenced drug use indirectly through peer associations. Strong bonds to family and school decrease the likelihood of involvement with drug using and delinquent peers. They found only indirect effects of family and school bonding on drug use, and suggest that this reflects the time ordering of youths' experiences in the social contexts they

encounter. The strength of bonding to family and school is determined before exposure to drug using peers in adolescence. However, the extent to which youths have become bonded to family and school is likely to be a factor in the selection of prosocial or drug using companions in early adolescence (Kandel et al., 1978; Elliott et al., 1982).

This suggestion raises an important question regarding the role of peers in the etiology of adolescent drug abuse, which has not been adequately addressed in existing studies: At what point do peers become important in predicting adolescent substance use? Researchers have begun to study childhood peer association longitudinally into adolescence (Coie and Dodge, 1983). However, little research has focused on preadolescent peer association as possible predictors of subsequent drug initiation or abuse. There is little empirical data to assess the potential for peer-focused interventions prior to the junior high school years, although the strength of the relationship between peer factors and adolescent drug use clearly support the need for further research on the nature and etiology of peer influences prior to adolescence as these relate to drug initiation, use, and abuse.

Questions regarding the possible role of childhood peers in predicting adolescent drug use also relate to the question of the desired outcome of prevention efforts. Adolescent drug experimentation can be seen as a peer-supported phenomenon reflecting the increasing importance of peers during adolescence. On the other hand, adolescent drug abuse appears to be embedded in a history of family conflict, school failure, and antisocial behaviour. How childhood associations with antisocial peers or conversely, childhood isolation, may be possible predictors of drug abuse is not clear. Further research is needed on the relationship between peer associations prior to adolescence and subsequent drug use and abuse.

In the light of the research review the following hypotheses are framed:

I If a subject perceives high positive relationship with the parents he will be a non user but if a subject perceives low positive relationship with the parents he will be an abuser.

II If a subject perceives low peer use of substance he will be a non user, but if a subject perceives high peer use of substance he will be an abuser.

METHOD

Research design was framed after conducting a pilot study at the Civil Hospital, Karachi (1984-85).

On the basis of the pilot study a structured interview was designed. It consisted of 1) Identifying data of the subjects; 2) Intensive Interview related to earlier drug use or abuse and various experiences related to drugs or substances; 3) Questionnaire; and 4) TAT cards. The data was recorded for both abusers and non-users (normals) for the research variables.

Research instruments were prepared in consultation with other clinical psychologists and the director of the Institute of Clinical Psychology.

Operational Definitions

Abuser

The patients of the Civil Hospital who were heroin addicts were defined as abusers even if they were taking other substances.

Non-users (Normals)

The subjects who were matched with the abusers but were free of any kind of addiction were defined as non-users or normals.

The following testing variables were also defined and three-point rating scales were prepared. All the scores from all sources of data (Interview, Questionnaire and TAT) were measured by these scales (Appendix).

"Perceived parental relationship" was defined and scored according to

whether the following parental traits were seen as "high", "moderate", or "low" by the subjects:

- Kind, attentive
- warm, caring, loving
- providing education
- nature of relationship between parents
- strict, quarrelsome, neglecting

"Peer use of substances" was defined and scored according to the extent to which the subjects perceived their age-peers (acquaintances, friends, siblings) using substances, i.e.:

- all or most of them use substances, or
- few of them use substances, or
- very few or none of them use substances,

Sample

One hundred subjects comprising of fifty heroin abusers and fifty non-users were studied for this investigation. The groups of abusers and non-abusers ('normals') were carefully matched on the following variables:

Residential area; age group; education; income (monthly); profession; family and marital status.

Procedure and Administration

The subjects were contacted at the O.P.D. (outdoor patient department) which was held daily at the Civil Hospital, Karachi. Since matched pairs (abuser and non-user) were not easily available most of the heroin abusers selected as subjects were matched with one of their attendants (friend, colleague, or brother) who accompanied them to the hospital. During the initial meeting each subject was motivated to undergo the assessment process.

Only one subject was assessed at a time. After recording the identifying data, the subject was asked to report freely and in detail about his heroin addiction problems including his first experience, age when he started, causation and various other experiences related to his drug use. Then a questionnnaire was given to the subject and he was asked to respond to it with reference to his experiences. In case of illiterate subjects the form was read out and the answers were noted down. Finally TAT cards were administered to the subject, one by one, and he was requested to make stories following the given instructions.

Scoring

Frequency of responses was calculated for all psychological variables from the structured interview and each response was measured on three point rating scale i.e. high, moderate and low (Appendix). In order to assess inter-rater reliablity a sample of ten forms (response sheets) were selected. Thus every tenth case was selected and then rated by another trained and qualified rater. The Pearson product moment coefficient of correlation was computed for the variables which was found to be moderately positive.

The relationships of various risk factors with abusers and non-users were tested by the statistical method of Chi-square for significance.

RESULTS

The results of the statistical analysis are shown in Table I and Graph A. It may be noted that the chi-square ($X^2 = 63.69$, df = 2, $p < .001$ level) indicates that perceived parental relationship is a major psycho-social risk factor of drug abuse. Abusers tend to perceive low positive relationship with their parents, while non-users seem to perceive high positive relationship with their parents. The required chi-square was $X^2 = 13.82$, df = 2 for $p < .001$ level of significance.

TABLE I

THE EFFECT OF PERCEIVED PARENTAL RELATIONSHIP ON ABUSERS AND NON-USERS

S.No.	Categories of Responses	Abusers	Non-Users	Both
i.	High Positive	303	482	785
ii.	Moderate Positive	24	37	61
iii.	Low Positive	146	65	211
	Total	473	584	1057

$$X^2 = \frac{(fo - fe)^2}{fe} = 63.69$$

Significant at $p < .001$ level.

GRAPH A

THE EFFECT OF PERCEIVED PARENTAL RELATIONSHIP ON ABUSERS AND NON-USERS

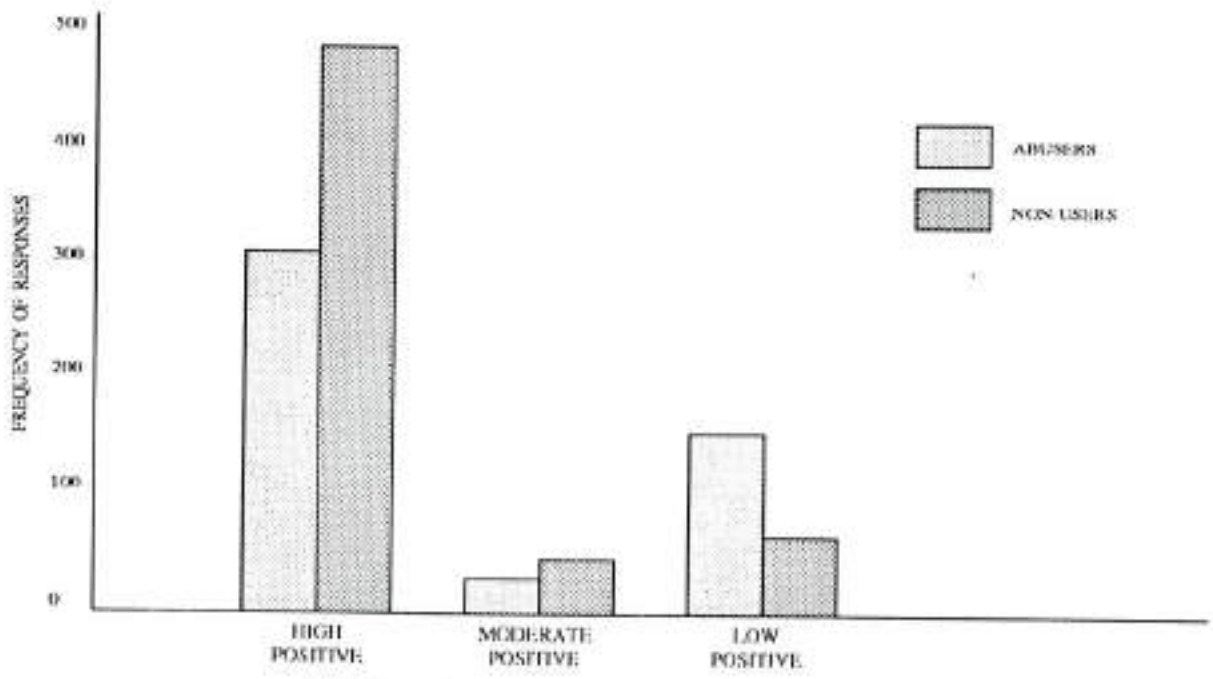


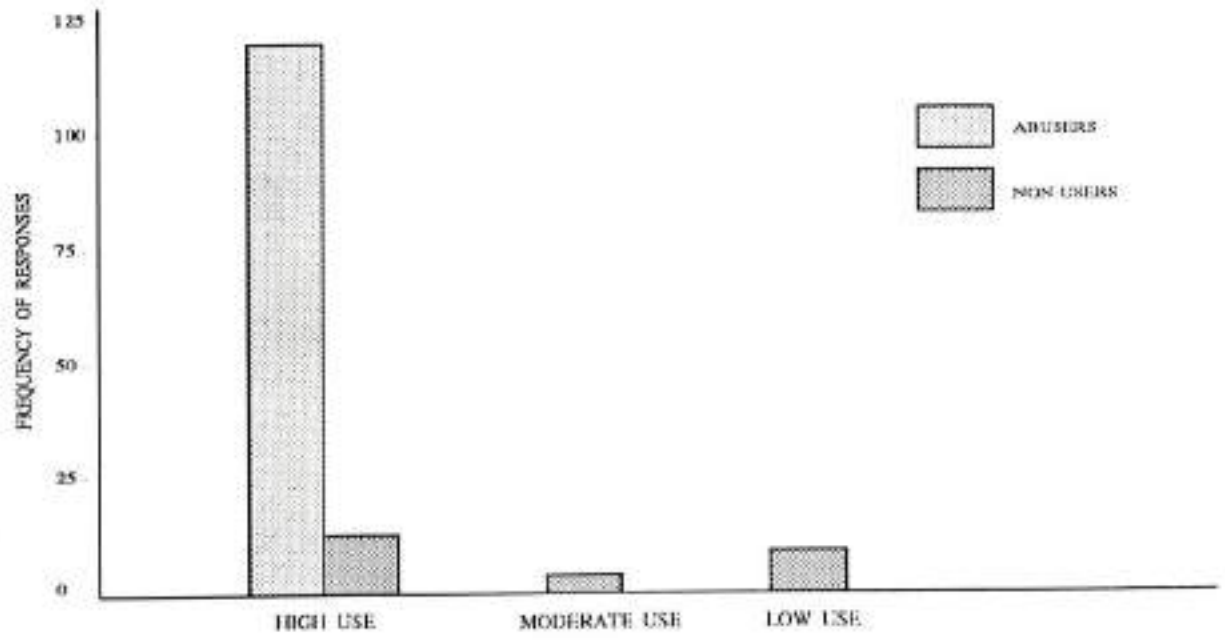
TABLE II

THE EFFECT OF PERCEIVED PEER USE OF SUBSTANCE ON ABUSERS AND NON-USERS.

S.No.	Categories of Responses	Abusers	Non-Users	Both
i.	High Peer Use of Substance	121	10	131
ii.	Moderate Peer Use of Substance	Nil	02	02
iii.	Low Peer Use of Substance	Nil	05	05
	Total	121	17	138

GRAPH B

THE EFFECT OF PERCEIVED PEER USE OF SUBSTANCE ON ABUSERS AND NON-USERS.



Statistical analysis for the second hypothesis was not possible since two cells of the chi-square 2 x 3 design had nil responses i.e. responses for moderate (M) and low (L) levels of perception were not obtained in the case of abusers. However the raw data is suggestive. The difference in number of responses between abusers and non-users in the perception of high peer use is 111. Peer use of substance, therefore, also appears a major risk factor of heroin abuse. Abusers seem to perceive high peer use of drugs as compared to non-users.

DISCUSSION

This study was undertaken to investigate certain psycho-social risk factors of heroin abuse in Pakistan.

Results obtained indicate that it is not only that the abusers are found different from non-users on risk factors, but it also came to light that the two risk factors seem highly related to addiction i.e. low positive relationship with parents and high peer use of substance.

Hypothesis No. 1 states that:

"If a subject perceives high positive relationship with his parents he will be a non-user, but if a subject perceives low positive relationship with his parents he will be an abuser."

The hypothesis is supported by the data and is significant at $p < .001$ level.

It is interesting to note that the highest frequency of responses of respondents of both the categories (abusers vs. non-abusers) is in favour of high positive relationship with the parents (Table I); the second highest frequency of responses is in favour of low positive relationship and the third is for moderate relationship with parents. But the abusers have given less high positive responses than non-users; and abusers have given more low positive responses than non-users. Therefore, as Table I along with Graph A illustrate, abusers are significantly different in their tendency to perceive parental realtionship. They are not as close to their parents as non-users are and they seem to have greater psychological distance within their families.

Parental relationship is one of the basic variables in child rearing practices. It is universally accepted that family is the most influential socializing agent. It is through family relationships especially realtionships with parents, that the child learns to conform to group norms and behave accordingly. In Pakistan the family system and child-rearing practices are different as compared to the West. The author has noted that inspite of much urbanization in Pakistan, the joint family system still exists. Generally people have large families and mostly they live together. Poverty, illiteracy and unemployment are the main problems as in other developing countries. In Pakistan parents seem to encourage dependency unlike in the West. Mothers seem to give more physical love and take great care of their children. The male child is mostly over-indulged in most families because he is considered an earning member and heir to the property and through him the name of the family is kept alive. Fathers are perceived as strict and authoritative as men are more powerful than the women in Pakistan. The general family system is conventional characterized by orthodox and old values. Parents and grandparents are supposed to take care and settle all matters of young ones. Therefore if a child in a family suffers, not only parents, but all family members get involved.

Results refer to the fact that non-users are found to have high positive relationship with their parents and family members. They are more respectful to their elders, more conscious of their duties and loyal to their social values. They find peace and harmony in their families. Non-users are normally close to their families therefore they are careful not to hurt them by doing something wrong. However, abusers are found to have low positive relationship with their parents especially with their fathers. They have loose ties with the family and consequently lack identification with their traditions and value system. Abusers reported that they did not get enough attention and security in the home. Therefore they were attracted by the company of their age mates, friends and co-workers. They tended to acquire defective modes of bahaviours from the very beginning and got involved in the addiction of heroin. Another factor also interesting to note is that those who stay away from religious norms tend to indulge in addiction which is prohibited by Islam.

Thus the hypothesis is proved significantly as abusers are inclined to express low perceived positive relationship with their parents as compared to non-users who are inclined to report more high perceived positive parental relationship.

Hypothesis No. II states that :

"If a subject perceives low peer use of substance he will be a non-user, but if a subject perceives high peer use of substance he will be an abuser."

This hypothesis is supported by the raw data. Statistical analysis was not done because abusers have responded to the peer use of substance only on the point "high" on the three-point rating scale while no response was given for the other two points: moderate and low.

In contrast to 121 responses for high peer use of substance by abusers, non-users gave only 10 responses for high and 2 and 5 for the other two points, moderate and low. It shows clearly how abusers may be pressurized by high peer use of drugs as compared to non-users.

Peer use of drugs during adolescence is among the strongest predictors of adolescent drug use. Friends are found among the most responsible agents for suggesting drug use. The author has found that most abusers are of lower socio-economic status. Many were drivers of public buses and wagons. Heroin was first introduced by their colleagues and co-workers who offered it free, without charging money. Mostly they reported "one of my friends provided it, to have "pinkie", to fly in the sky etc. They were not friends in the true sense". However, non-users generally reported that they avoided the bad company of drug users and even if they had such friends or colleagues they did not care for them. They disliked evil things which produced pleasures. They could refrain because they believed it depended upon the person himself how he manages problems. It is interesting to note that non-users were found to have some addicted friends and siblings using heroin. But they refrained because they did not like drugs. They generally tried to avoid the company of addicted persons. They thought it against their self, parents' respect and social status. They were able to adopt suitable company and ways from the earliest period of life, therefore, appeared to get along smoothly. While abusers came under the influence of bad company, probably due to their personal weaknesses and became the victim of addiction easily as compared to non-users. Therefore it can be concluded on the basis of raw data that abusers tend to perceive a higher peer use of substance than non-users.

REFERENCES

Adler, P.T. and Lutecka, L. Drug Use Among High School Students: Patterns and Correlates. International Journal of Addictions, 8:537-548, 1973.

Akers, R. L. Deviant Behaviour: A social learning approach. 2nd ed. Belmont: Wadsworth Press, 1977.

Akers, R. L., Korhn, M. D., Lanza-kaduce, L., and Radosevich, M. Social Learning and Deviant Behaviour: A Specific Test of a General Theory. American Social Review, 44(4): 636-655, 1979.

Alfaro, J. Report of the New York State Assembly Select Committee on Child Abuse. Child Protection, 2(1), 1976.

Baumrind, D. Specious Causal Attributions in the Social SciencesThe Reformulated Stepping-stone Theory of Heroin Use as Example, Journal of Personality and Social Psychology, 45, (6), 1289-1298, 1983.

Blum, R. H., and associates. Students and Drugs. San Francisco: Jossey-Bass, 1970.

Blum, R. H., Henry, W. E., and Sanford, N. (Eds.) The Dream Sellers. San Francisco: Jossey-Bass, 1972.

Braucht, G. N., Brakarsh, D., Follingstad, D., and Berry, K. L. Deviant Drug Use in Adolescence: A Review of Psychosocial Correlates. Psychological Bulletin, 79(2): 92-106, 1973.

Brooks, J. S., Linkoff, I.F., and Whiteman, M. Initiation into Adolescent Marijuana Use. Journal of General Psychology, 137: 133-142, 1980.

Bry, B. H. Substance Abuse in Women: Etiology and Prevention. In: Ricket, A.U.; Gerrard, M.; and Iscoe, I. (Eds.) Social and Psychological Problems of Women: Prevention and Crisis Intervention. New York: McGraw Hill, 1983, 253-272.

Bushing, B.C. and Bromley, D.G. Sources of Non-Medical Drug Use: A Test of the Drug-Oriented Society Explanation. Journal of Health and Social Behaviour, 16: 50-62, 1975.

Cannon, S. R. Social Functioning Patterns in Families of Offspring Receiving Treatment for Drug Abuse. Roslyn Heights: Libra, 1976.

Catalano, R. F. Relative Reward Deprivation and Delinquency Causation. Doctoral Dissertation, University of Washington, 1982.

Coie, J. D. and Dodge, K. A. Continuities and Changes in Children's Social Status: A Five-year Longitudinal Study. Merrill-Palmer Quarterly, 29(3): 261-282, 1983.

Deykin, E. V. Life Functioning in Families of Delinquent Boys: An Assessment Model. Social Services Review, 46(1), 90-91, 1971.

Ellinwood, E. G., Smith, W. G., and Vaillant, G. E. Narcotic Addiction in Males and Females: A Comparison. International Journal of Addiction. (1), 33-45, 1966.

Elliott, D. S., Huizinga, D., and Ageton, S. S. Explanining Delinquency and Drug Use. Boulder: Behavioural Research Institute (Report No. 21), 1982.

Garbarino, J. Child Abuse and Juvenile Delinquency: The Developmental Impact of Social Isolation. In Hunner, R. and Walker, Y. (Eds.) Exploring the Relationship between Child Abuse and Delinquency. Montclarie: Allanheld Publishers, 1981.

Ginsberg, I. J. and Greenley, J. R. Competing Theories of Marijuana Use: A Longitudinal Study. Journal of Health and Social Behaviour, 19: 22-34, 1978.

Goldstein, J. W, Assessing the Interpersonal Determinants of Adolescent Drug Use. In: Lettieri, D. J. (Ed.) Predicting Adolescent Drug Abuse: A Review of the Issues, Methods, and Correlates. Rockville, MD: National Institute on Drug Abuse, 1975, pp. 45-52.

Haskell, M. R. and Yablonksy, L. Crime and Delinquency, 2nd ed. Chicago:Rand-McNally College Publishing Co., 1974.

Hendin, H., Pollinger, A., Ulman, R., & Catt, A. C. Adolescent Marijuana Abusers and Their Families (DHHS Publication No. ADM 81-1168). Washington, D. C.: U.S. Government Printing Office, 1981.

Hirschi, T. Causes of Delinquency. Berkeley: University of California Press, 1969.

Huba, G. J. Wingard, J. A. and Bentler, P. M. Beginning Adolescent Drug Use and Peer and Adult Interactions. Journal of Consulting and Clinical Psychology, 47: 265-276, 1979.

Jensen, G. F. Parents, Peers, and Delinquent Action: A Test of the Differential Association Perspective. American Journal of Sociology, 78: 562-575, 1972.

Jessor, R. and Jessor, S. L. Problem Behaviour and Psychosocial Development: A Longitudinal Study of Youth. New York, Academic Press, 1977.

Jessor, R., Chase, J. A., and Donovan, J.E. Psychosocial Correlates of Marijuana Use and Problem Drinking in a National Sample of Adolescents. American Journal of Public Health, (70): 604-613, 1980.

Kandel, D. B. Adolescent Marijuana Use: Roles of Parents and Peers. Science 181: 67-67, 1973.

Kandel, D. B. Interpersonal Influences on Adolescent Illegal Drug Use. In

Josephson, E., Carroll, E. E. (Editors). Drug Use: Epidemiological and Sociological Approaches. Washington, D. C.: Halsted Press, 1974, pp. 207-240.

Kandel, D. B. Stages in Adolescent Involvement in Drug Use. Science, 190, 912-914, November 1975.

Kandel, D. B. Convergences in Prospective Longitudinal Surveys of Drug Use in Normal Populations. In Kandel, D. (Ed.) Longitudinal Research in Drug Use: Empirical Findings and Methodological Issues. Washington, D. C.: Hemisphere-John Witen, 1978.

Kandel, D. B., and Adler, I. Socialization into Marijuana Use Among French Adolescents: A Cross-cultural Comparison with the United States. Journal of Health and Social Behavior, 23, 295-309, 1982.

Kandel. D. B. Epidemiological and Psychosocial Perspectives on Adolescent Drug Use. Journal of American Academic Clinical Psychiatry, 21(4): 328-347, 1982.

Kaplan, H. B., Martin, S. S., and Robbins, C. Applications of a General Theory of Deviant Behaviour: Self-derogation and Adolescent Drug Use. Journal of Health and Social Behaviour, 23(4): 274-294, 1982.

Kaufman, E. and Kaufman, P. N. (Eds.) Family Therapy of Drug and Alcohol Abuse. New York: Gardner Press, 1979.

Langner, T. S., Gersten, J. C., Wills, T. A., and Simcha Gagon, O. The Relative Roles of Early Environment and Early Behaviour as Predictors of Later Child Behaviour. In Ricks, D. F., and Dohrenwend, B. S. (Eds.) Origins of Psychopathology. New York: Cambridge University Press, 1983.

Lawrence, T. S., and Vellerman, J. D. Correlates of Student Drug Use in a Suburban High School. Psychiatry, 35 (May), 129-139, 1974.

Loeber, R. and Dishion, T. Early Predictors of Male Delinquency: A Review. Psychological Bulletin, 93: 68-99, 1983.

McGlothlin, W. H. Drug Use and Abuse. Annual Review of Psychology, 26: 45-64, 1975.

Meier, R. F. and Johnson, W. T. Deterrence as Social Control: The Legal and Extra-legal Production of Conformity. Annual Social Review, 42(2): 292-304, 1977.

Mercer, G. W., Hundleby, J. D., and Carpentger, R. A. Adolescent Evaluations of the Family as a Unit and their Relationship to the Use of Tobacco, Alcohol and Marijuana. Paper presented at the 11th annual conference of the Canadian Foundation of Alcohol and Drug Dependencies, Toronto, Ontario, June 20-25, 1976.

Nye, F. I. Family Relationships and Delinquent Behaviour. New York: Wiley and Sons, 1958.

O'Donnell, J. A., Voss, H. L., Clayton, R. R., and Room, R. Young Men and Drugs: A Nationwide Survey: 1976. National Institute of Drug Abuse Research. Monograph 5. Washington, D. C.: Supt. of Doc., U. S. Govt. Printing Office, 1976.

O'Donnell, J. A. and Clayton, R. R. Determinants of Early Marijuana Use. In G. M. Beschner & A. S Friedman (Eds.), Youth Abuse: Problems, Issues, and Treatment. Lexington, MA: Lexington Books, 1979.

Orcutt, J. Normative Definitions of Intoxicated State: A Test of Several Sociological Theories. Social Problems, 4: 385-396, 1978.

Osborn, S. G., and West, D. J. Conviction Records of Fathers and Sons Compared. British Journal of Criminology, 19:120-133,1979.

Pattrerson, C. R. A Social Learning Approach, Vol. 3: Coercive Family Process. Eugene: Castalia Publishing Co., 1982.

Penning, M. and Barnes, G. E. Adolescent Marijuana Use: A Review. International Journal of Addictions, 17: 749-791, 1982.

Pfouts, J. H., Schopler, J. H., and Henley, H. C., Jr. Deviant Behaviour of Child Victims and Bystanders in Violent Families. In Hunner, J. and Walker, Y. E. (Eds.) Exploring the Realtionship between Child Abuse and Delinquency. Montclair: Allandheld, Osmun & Co, 1981.

Rachel, J. V., Guess, L. L., Hubbard, R. L., Maisto, S. A., Cavanaugh, E. R., Waddell, R., and Benrud, C. H. Adolescent Drinking Behaviour, Vol. 1: The Extent and Nature of Adolescent Alcohol and Drug Use: The 1974, 1978 and 1983 National Sample Studies. Research Traingable Park: Research Traingle Institute, 1980.

Reildy, D. M. Family Factors in the Etiology and Treatment of Youthful Drug Abuse. Family Therapy, 11: 149-171, 1979.

Robins, L. N. and Ratcliff, K. S. Risk Factors in the Continuation of Childhood Anti-Social Behaviour into Adulthood. International Journal of Mental Health, 7: 76-116, 1979.

Robins, L. N. The Natual History of Drug Abuse. In Lettieri, D. J., Sayers, M., and Pearson, H. W. (Eds.) Evaluation of Treatment of Drug Abusers, ACTA Psych. Scand., Supple. 284, Vol. 62, 1980.

Sederstrom, J. Family Structure and Juvenile Deliquency. University of

Washington, 1978.

Shibuya, R. R. Categorizing Drug Users and Non-users in Selected Social and Personality Variables. Journal of School Health, 44: 442-444, 1974.

Shore, M. F. Psychological Theories of the Causes of Antisocial Behaviour. Crime and Delinquency, 17(4): 456-468, 1971.

Smart, R. G., Gray, G. and Bennett, C. Predictors of Drinking and Signs of Heavy Drinking among High School Students. International Journal of Addiction, 13: 1079-1094, 1978.

Stanton, M. D. and Todd, T. C. Structural Family Therapy with Drug Addicts. In Kaufman, E. and Kaufman, P. (Eds.) Family Therapy of Drug and Alcohol Abuse. N. Y.: Gardner Press, Inc., 1979.

Steele, B. Violence in the Family. In: Helfer, R. and Kampe, C. H.,(Eds.) Child Abuse and Neglect: The Family and the Community. Cambridge, Ballinger, 1976.

Streit, F. A. Test procedure to identify secondary school children who have a high probability of drug abuse. Dissertation Abstracts International, 1973.

Tec, N. Parent-Child Drug Abuse: Generational Continuity or Adolescent Deviancy. Adolescence, 9(35): 351-364, 1974.

Templer, D. I., Ruff, C. F., and Ayers, J. Essential Alcoholism and Family History of Alcoholism. Quarterly Journal of Studies on Alcohol, 1974, 35, 655-657.

Timberlake, E. M. Child Abuse and Externalized Aggression: Preventing a Delinquent Lifestyle. Mountclair: Allanheld, Osmun, 1981.

Wechsler, H. and Thum, D. Teenage Drinking, Drug Use, and Social Correlates. Journal of Studies on Alcohol, 34: 1220-1227, 1973.

Weis, J. G., Hall J. B., Henny, J. S., Sederstrom, J., Worlsley, K., and Zeiss, C. Peer Influence and Delinquency: An Evaluation of Theory and Practices, Part I and Part II. National Institute for Juvenile Delinquents, 1980.

Wilkinson, R. The Prevention of Drinking Problems: Alcohol Control and Cultural Influences. New York: Oxford Univesity Press, 1974.

West, J. D. and Farrington, D. P. Who Becomes Delinquent? London: Heinemann, 1973.

Ziegler-Driscoll, G. The Similarities in Families of Drug Dependents and Alcoholics. In Kaufman, E. and Kaufman, P.(Eds.) Family Therapy of Drug and Alcohol Abuse. New York: Gardner Press, Inc., 1979.

APPENDIX

Three-point Rating Scales of the Testing Variables:

I. Perceived Parental Relationship

This scale measures the traits which the subjects perceive in their respective parents, i.e. the extent to which parents have been warm towards the child, caring, provide education, attend to him or neglect him, are strict, and are quarrelsome.

1. High positive

Frequently warm towards the child, have been very careful in bringing him up; provide good education; generally kind and helpful; not strict or quarrelsome.

2. Moderate positive

Warm to the child to an extent; provide education like to other siblings; kind and helpful when in need; strict sometimes; not quarrelsome.

3. Low Positive

Occasionally warm toward the child, does not provide good education; not helpful or kind; neglects him; strict and quarrelsome to a great extent.

II. Peer Use of Substances

This scale measures the level of the subject's peer use of substances i. e. how he perceives people of his own age around him, i.e. acquaintances, friends or siblings, insofar as substance use is concerned.

1. High peer use of substance: All or most people of his own age around him use substances.

2. Moderate peer use of substance: A few people of his own age around him use substances.

3. Low peer use of substance: Very few people (or none) around him use substances.

* * * * * *

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DISCRIMINATION BETWEEN SETS OF VISUALLY SIMILAR URDU AND ENGLISH PHONEMES THROUGH LIPREADING BY NORMAL SUBJECTS IN THE ABSENCE OF AUDITORY STIMULATION

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ABSTRACT

With due awareness of the limitations of lipreading as an alternate but popularly used means of communication by the deaf, the study primarily focused on determining the amount and extent of relative difficulty/confusion experienced in "recognizing" and "discriminating" (through lipreading) between phonemes having various combinations of vowels and consonants. The findings revealed that (i) Vowel phonemes were better recognized than Consonant phonemes, (ii) words with First Consonant Varying were better recognized and discriminated than those with Last Consonant Varying. However within the 'Middle Vowel Varying category the words were best recognized and discriminated.

INTRODUCTION

Among the non-auditory means of communication employed by profoundly deaf people, lipreading has been credited as being the most effective of its class. Despite its own limitations as duly recognized and reported by teachers

of lipreading, it still tends to provide the lipreader with the maximum number of very much visible as well as less visible contextual cues which normally constitute a great bulk of visual components of phonetic effects of speech. For this very reason, i.e., the richness of the medium, and also in view of its classical significance, it has long been used quite profitably in the education of the deaf in America (Nitchie, 1912; Bruhn, 1929; Kinzie, 1931). Apart from very encouraging results reported by the teachers of the deaf in Germany, lipreading has also been used by Bairwood (1931) and Warren (1962) in teaching deaf mutes to communicate.

In another study, Sheikh (1980, 1981) used lipreading as a reliable supplement in his series of three experiments with electrocutaneous stimulation. Further analysis of lipreading revealed that there are three obvious but important areas that need to be critically considered, i.e. the speaker; the clarity of the stimulus and the ability of the receiver. If the speaker could mouth the words slightly more stressed (little exaggerated) so that the stimulus (lip movements of the speaker) could render phonetic expressions more pronounced and distinguishable by the speaker, and if it at the same time fits well the contextual expectancy of the receiver (lipreader), then about 70% material stands fairly well received (O'Neill, 1962).

Thus keeping in view the aforesaid requirements various tests of lipreading were carefully designed to measure the ability of the 'receiver' to be able to comprehend without extraordinary concentration as to what the speaker is trying to communicate through his lip movements. Such tests prove very effective and fairly reliable in determining the extent to which the deaf can be trained and facilitated to learn to lipread, and also in finding out the combination/s of various such non-auditory means which are likely to prove most appropriate for adults of different ages and performance levels of lipreading proficiency (O'Neill,1962). Certain factors, such as intelligence, visual skills and motivation level of the lipreader himself, in this regard have been found to exercise an important role.

According to Pauls (1947) speaker factors, i.e. other facial and emotional gestures, and tonal expressions tend to further facilitate the lipreader and play an important role in speech transmission. In another study of phoneme perception in

lipreading by Woodword and Barbar (1960), the subject's task in the experimental condition was to respond to the members of each syllable pair as "alike" or "different". The analysis of these responses was designed to establish (a) rank order of visual perceptibility of consonants' phonation and (b) a hierarchy of visual contrastiveness among the phonetic differences which are assumed to be crucial in the aural perception of speech.

The lipreader might be able to discriminate between the words "Pill" and "Bill", when these words occur in such utternaces as "he swallowed the pill" and "he paid the bill". But it is not justifiable to infer from this that the lipreader has actually distinguished between the phonetic effects of "P" and "B". Conversely he may merely have distinguished the contexts in which the two words had occurred. The lipreader can sometimes discriminate between forms distinguished by the voiceless and voiced consonants of English or Urdu; this does not necessarily mean that he can see the articulatory differences among them. Woodword and Barbar (1960) concluded that the following four sets of English consonants initials of visually contrastive units are available consistently to the lipreader: (1) P, B & M; (2) F & V; (3) T, D & N; (4) CH & SH. These four units may be categorized briefly as Bilabial, Rounded labial, Labiodental, and Non Labial respectively.

The visual aspect of speech under the most favourable conditions may still give an incomplete and often an ambiguous representation as we hear it. Many sounds involve movements made in the back of the mouth which are not seen at all under ordinary circumstances and even under most favourable conditions. There are a number of cases in which elements showing great difference in sound are practically identical in their visual appearance. To illustrate this two common examples of English phonemes with their Urdu equivalents are as follows :

B, P and M as in Bill, Pill and Mill with their Urdu homophones like پ،ب and م as in بال و پال and ماں و ڈ. and similarly F and V as in Fan and Van with their Urdu equivalents like ف and و in فرق and ورق و etc.

The misreadings with consonants are much more clustered in groups,

whereas among vowels no two vowels are homophonous in the same way as in P, B and M. This difference could be attributed to the fact that some of these expressions lend themselves visible on lips while some not. The problem is further aggravated by the fact that there is very little stress on movement of lips while speaking in Urdu. Therefore one of the objectives of this study was to work out a comprehensive list of such visually similar Urdu phonemes which are difficult to discriminate for the normal subjects in the absence of auditory stimulation. The test material to be used in this study was thus prepared accordingly and checked against the following criteria :

a. all the words will be monosyllabic,
b. grammatically correct,
c. meaningful,
d. difficulty level moderate,
e. usage frequency well-checked.

In order to locate the 'source' and relative 'amount' of difficulty, each of the probable factors is to be examined separately. The stimulus words thus included in the list (List-I) were treated as falling into the following categories :

First Consonant Varying	---------- (A)
Middle Vowel Varying	---------- (B)
Last Consonant Varying	---------- (C)
Interchanged Consonants	---------- (D)
First Consonant Critical	---------- (E)
Both Consonants Critical	---------- (F)
Last Consonant Critical	---------- (G)

In view of the four 'Units' identified, the phonetic blocks involving the bilabial, rounded labial and labiodental expressions, it was hypothesized that :

(I) Words with middle vowel varying will be recognized and discriminated more readily than words with first consonant varying.
(II) Words with first consonant varying will be recognized and discriminated better than those with last consonant varying,
(III) Vowel phonemes will be better recognized than consonant phonemes.

METHOD

Subjects : The sample included 60 postgraduate students from different departments of the University of the Punjab, New Campus, Lahore, ranging in age from 20 to 25 years, having no detected significant hearing defect or any prior training in lipreading.

Apparatus and Equipment : The test material used consisted of a list of 80 different words, representing all the seven categories (A - G) picked out from a computer-generated master list of all monosyllabic words, including dipthongs as well. The words were pre-recorded on a cinematographic film, and a 16 mm sound synchronized movie projector was used for the projection of stimulus material on a white 6 x 4 feet flat screen. Each subject was provided with a pack of 80 pre-numbered paper slips for instantaneous recording of his responses separately for each of 80 stimulus words, and two good pencils. The choice of the speaker was made on the basis of the ratings obtained from regular TV viewers and the subject's assumed familiarity with the speaker having clearest lip movements.

Procedure : The subjects were tested in groups of 4, seated facing the projection screen in a semi dark and sound-treated room of 18 x 9 feet. The entire testing session lasted for about 45 minutes, comprising 80 cycles of 20 seconds duration each. The constitution of each cycle/trial is shown schematically in Fig. 1 . Prior to starting the presentation of stimulus material, the subjects were adequately briefed by reading out to them the printed instructions in Urdu so as to assure that they fully understood their assignment. Following the instructions a list of 80 words was given to them for 10 minutes in order to acquaint themselves with the material; this was done to facilitate their receptiveness and expectancy. The sequence of the words in the pre-exposed list was totally different from the sequence in the filmed material (the actual test material).

The test material consisting of 80 different words, thoroughly scrambled, was projected one word at a time, with appropriate time intervals according to a pre-determined schedule. The timing was precisely controlled with the help of an

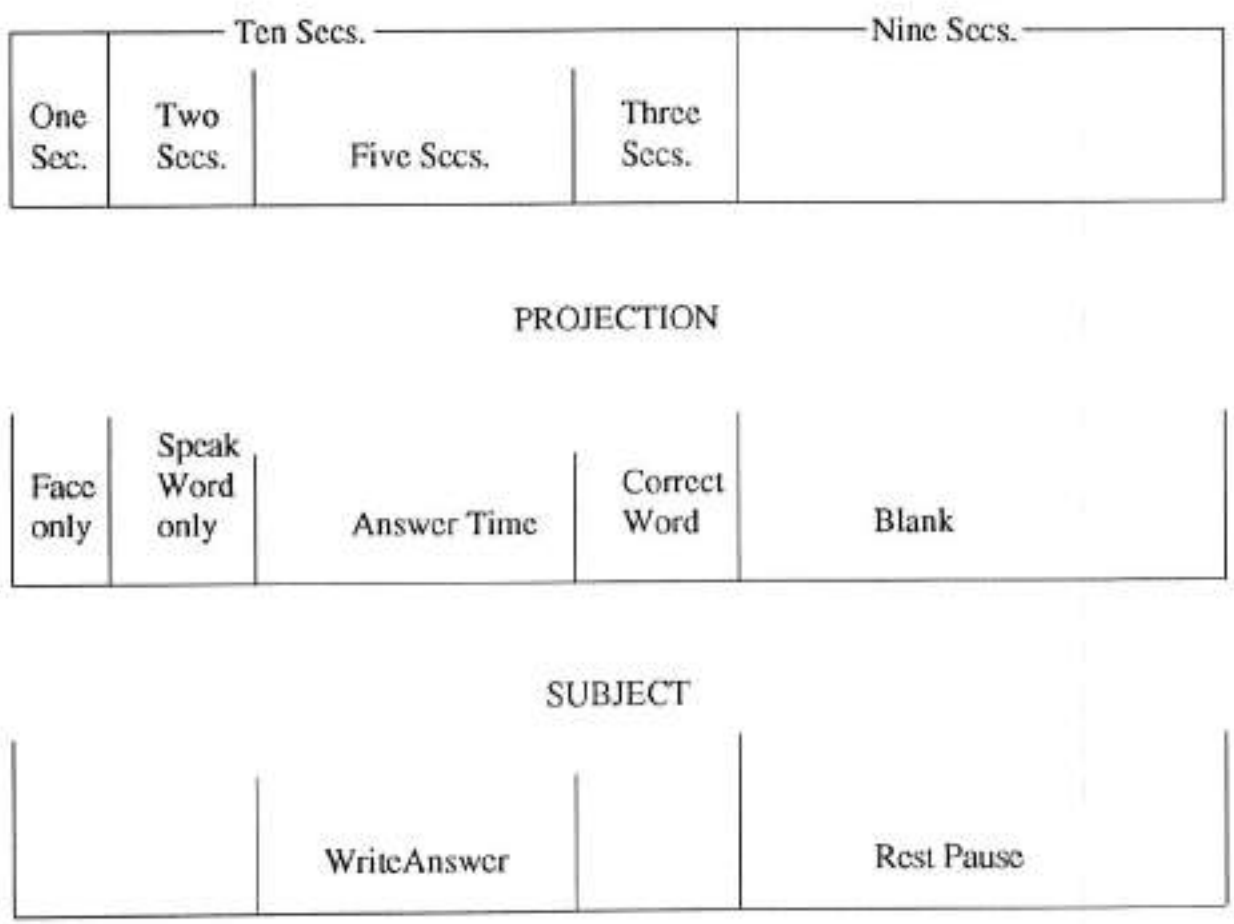

Fig. 1. Constitution of OneTrial.

electronic interval timer.

In response to the visually presented stimulus words, subject's responses written on the numbered slips of paper were to be obtained in quite a quick succession, therefore, it was regulated through an electro-mechanical check such that the response for each stimulus word was given before the correct answer appeared on the screen. Two seconds after the verbal ready signal from the examiner, the speaker's immobile face appeared on the screen for one second, followed by the mouthing (speaking) of the word for approximately 2 seconds. The subjects were then allowed 5 seconds in which to write down their responses on a small pre-numbered slip of paper, and put that slip in a small box placed on the arm of the chair. Following the 5 second answer time the correct word

appeared on the screen for 3 seconds, which was followed by a rest pause of 9 seconds before starting the next trial (Fig. 1.).

RESULTS

TABLE I : Percentages of Correct Responses -- Recognition and Discrimination Scores Averaged for 60 Subjects.

	CATEGORIES			
% Correct Responses	A	B	C	D
Discrimination scores	02.5	04.0	0.83	02.33
Recognition scores	12.4	13.35	08.4	09.1

Category B (Middle Vowel Varying) has been found yielding highest percentage of correct responses both in recognition and discrimination as compared to A (First Consonant Varying); C (Last Consonant Varying) and D (Interchanged Consonants) being next in order. Category C having smallest scores both in recognition and discrimination and least favoured in discrimination (Table I, Fig.2).

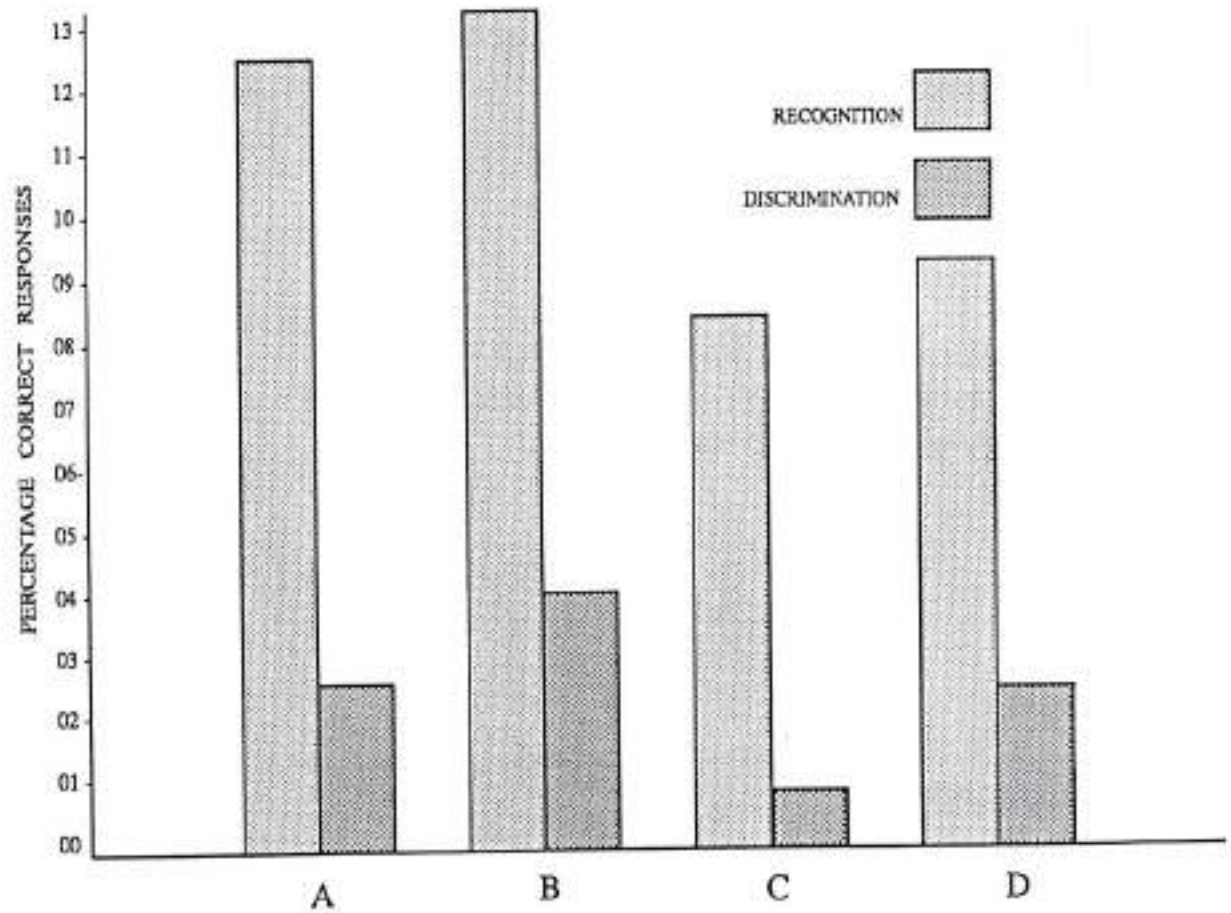

Fig: 2. Histogram showing percentages of correct 'recognition' and within pair 'discrimination' of words and word-pairs in categories A, B, C and D, averaged over 60 subjects.

DISCUSSION

It may thus be inferred from these findings that vowel phonemes are better recognized than consonants. In fact there are no two vowels which are homophonous as consonants like B, M and P, and quite a few other such phonemes. Similarly words with first consonant varying are recognized and discriminated better than the words with last consonant varying. Within the category B (Middle Vowel Varying), the pair دَوا ـ دُعا has been best recognized and discriminated, yielding a recognition score of 47% for دُعا and 38.33% for دَوا , and discrimination score of 25%.

In order to investigate as to how and to what extent the position of the critical consonant alone is likely to influence speech reception through lipreading, the same test material was re-arranged to yield three categories, i.e., E (First Consonant Critical only), F (Both Consonants Critical) and G (Last Consonant Critical only). The data was analyzed for recognition only :

Table II : Percentage Correct Responses -- Recognition Scores over 60 Subjects.

% Correct Responses	C A T E G O R I E S		
	E	F	G
Recognition	06.36	10.7	19.0

Category G seems to be yielding the highest score. Still category F is found to be favoured over E i.e. words with first consonant critical are least recognized (Table II, Fig.3). This clearly indicates that recognition of words with last consonants critical is more stressed than both and first consonants critical.

Findings in this study, contrary to the earlier findings (Sheikh, 1980 & 1981), i.e. words with both consonants critical are recognized better than the words with first and last consonants critical, suggests that with Urdu phonemes the emphasis has apparently shifted to the last consonant critical. However, at this stage, no valid explanation could be offered to explain the unusual findings except that no attempt was made to select and arrange the test material with due consideration to the expected mode of expression, i.e. labial, labio-dental or non-labial. After careful examination it was found that words falling in category G are labial and labio-dental type, whereas E and F included items mostly of non-labial type. It is also true that colloquial English language, by virtue of its nature, involves more pronounced and explicit lip movements than our Oriental languages.

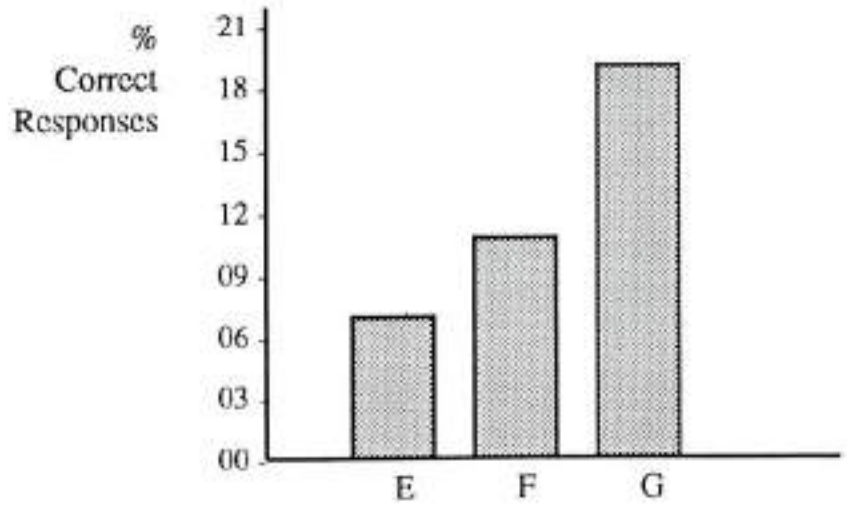

Fig. 3. Histogram showing percentage of correct recognition of words in categories E, F & G.

In order to observe the learning-to-lipread effect all the 80 words were considered as if falling into 8 blocks of 10 trials in each (Table III, Fig.4)

Table III: Percentages of correct responses - Recognition of 80 words assumed falling into 8 blocks of 10 trials, averaged over 60 subjects.

	BLOCKS OF TRIALS							
% Correct Responses	1	2	3	4	4	6	7	8
Recognition scores	12.5	11.6	08.0	09.5	08.8	18.0	10.0	05.6

Figure 4 shows learning effect from the beginning up to the sixth block of trials, reaching the peak performance, which is followed by an abrupt decline.

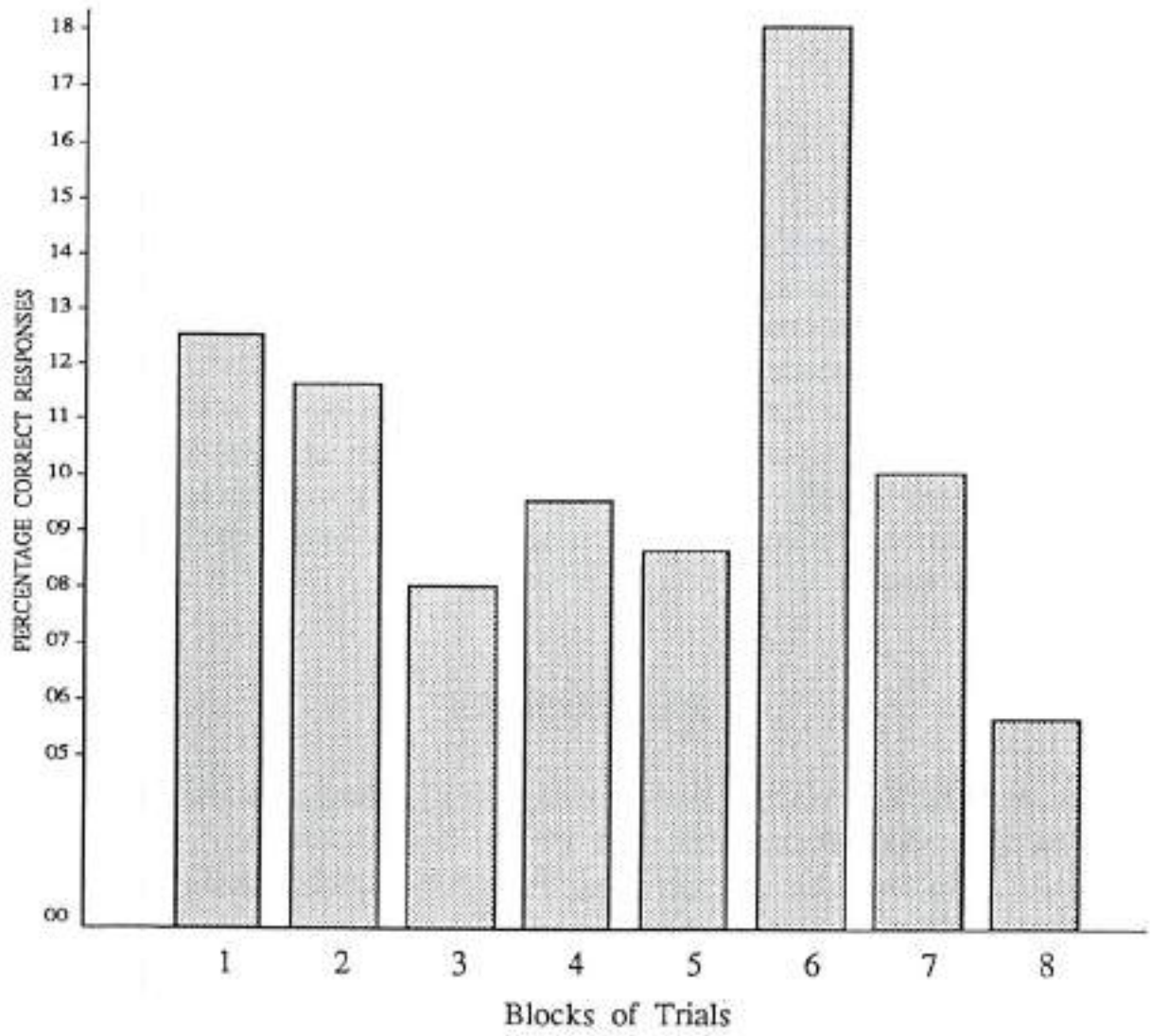

Fig. 4 Histogram showing learning to lipread as a function of 8 blocks of 10 trials (80 words)

Since it was a post-hoc idea to see the learning effect, if any, therefore, the material was not arranged with that end in view, but the analysis of the material shows that the words involving dento-labial and non labial movements are clustering towards the end of the list. It seems probable that the decline in learning curve is a function of this factor. Cumulative effect of repeated and intermittent failures (not visible in blocks of trials) is showing its strongest effect after the sixth block, or it could simply be a monotony or fatigue effect. In the same block of trials, incidentally words such as آپ - بال - آب - بات - ٹوپ involve highly expressive lip movements and therefore, are easily recognized. It may be inferred that the high recognition score of the sixth block is because of this factor.

CONCLUSION

The major problem in speech communication through lipreading in the absence of auditory stimulus lies not in correct recognition of phonemes but in discriminating one phoneme from the other reliably when the two involve the same or very similar lip movements. The richness of speech and the contextual cues do assist the lipreader, but the entire process is so heavily dependent on other auxiliary factors that it has to be supplemented by some other sensory system in order to be adopted as a reliable medium of communication by hearing-impaired people. It is very essential that visual speech cues (lip movements) be supplemented by such other sensory systems which fall closest to the auditory system.

REFERENCES

Bruhn, B. M.B. The Mueller-Walle Method of Lipreading for the Deaf Lynn, Mass : The Nichal Press, 1929, pp. 2-7.

Bairwood, J. In The Story of Lipreading, Fred Deland (Ed.). Washington D. C.: The Volta Bureau, 1931, pp. 93-97.

Kinzie, C. E. and Kinzie, R. Lipreading for the Deaf and Adults. Chicago: The John C. Watson Co., 1931, pp. 57-65.

Nitchie, E. B. Lipreading Principles and Practice. New York: Fredrick A Stokes Co, 1912, p. 20.

O'Neill, J.J. and Herbert, T. Visual communication for the level of hearing, 1962, Chapter I, pp. 17-19, Chapter III, pp. 20-26.

Pauls, M. D. Speech Reading, Hearing and Deafness, In Davis H. (Ed) New York : Murray Hill Books, 1947, Chapter 9.

Sheikh, M. H. Use of Electrocutaneous Stimulation to Supplement Lipreading by Normal Subjects Deprived of Auditory Stimulation - I. Journal of Scientific Research, University of the Punjab, Lahore, Vol. IX, Numbers 1-2, April & October 1980.

Sheikh, M. H. Use of Electrocutaneous Stimulation to Supplement Lipreading by Normal Subjects Deprived of Auditory Stimulation - II. Journal of Scientific Research, University of the Punjab, Lahore, Vol. X, Number 1, April 1981.

Woodword, M. F. and Barbar, C. G., Phoneme Perception in Lipreading, U.S. Department of Health Education and Welfare, University of Southern California, Vol. 3, Number 3, 1960.

Warren, L. E. In Visual Communication for the Level of Hearing, J. J. O'Neill and T. Herbert (Eds.)1962, Chapter 2, p. 15.

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CASE HISTORY AND TREATMENT OF A PATIENT WITH HYSTERICAL BLINDNESS

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INTRODUCTION

Mr. Abid (not his real name) was a seventeen year old boy who came to the author for treatment of hysterical blindness. There had been a sudden onset of blindness seven months earlier. He had been treated by various eye specialists and opthalmologists and was even sent abroad for the treatment of this sudden blindness.

CASE HISTORY

Mr. Abid was the only son in a family of three siblings. He was the eldest and was a student of science in a local science college. His father was a businessman and belonged to the higher middle class but was not very well-educated. He wanted his children to be educated hence all these three children including Abid and two younger sisters were going to school and college. His mother belonged to an educated family and she herself had studied up to matriculation. There was no psychopathology in the family. Mr. Abid being the eldest son and endowed with all the modern facilities which were provided by his father began to lose interest in his studies. He developed an apparently carefree life style spending much time with friends rather than devoting time to studies. The mother reported that he was pressurized by his father and the mother to complete his education before he could enter in the lucrative business of his father. She also reported that after a clash with his father about eight months ago, the boy slowly began to become withdrawn. One day about a month later, he suddenly began shouting saying that he had lost his eye sight completely. The parents were in a panic and the maternal uncle with other

relatives became closely involved in the treatment of the patient. He was then shown to various specialists both abroad and in Pakistan and was ultimately admitted to a local clinic for further investigation and treatment. In the meantime the administration of the clinic referred the patient to the author for treatment.

TREATMENT

Mr. Abid came to the author along with his parents and maternal uncle. The author called the parents and obtained the case history of the patient. After taking the history the patient was called in to the Interview Room. He came in holding the hands of his father and maternal uncle as he could not see anything. He was then made to sit in the couch and the father and the uncle were requested to leave the patient with the therapist. The author created a rapport with the patient and talked to him about his plans in life. The patient expressed that he was not interested in further education but wanted to join the business of his father as a partner. He appeared fully convinced that formal education in business means nothing in Pakistan.

The author decided to use the technique of hypnotism as a diagnostic tool and hence immediately gave a ring made of diamond and sapphire in the hand of the patient and asked him to concentrate on the same. It was suggested to him that he will soon begin to see the colours of the ring which he should report to the therapist. After five minutes he went into a trance and began to report that he can see some white light in the ring. The author encouraged the patient and further suggested that she was absolutely sure that he could see the other colours as well. After one minute he came up with the report that he could see the blue colour in the ring. The author was then fully convinced that the boy is suffering from hysterical blindness as he does not want to study and that developing the symptom of blindness was prompted by his desire to give up his studies. The author then asked him to report various items present in the room and he did see all of them correctly. The author decided to give the post-hypnotic suggestion saying that from now onwards he would be able to see even when he comes out of the hypnotic trance. He was then taken out of the hypnosis and the author asked him to report as to what the colour of her sari was that she was wearing. The patient responded with the correct colour, yellow. This showed that he was out of his hysterical blindness.

Since the whole treatment took only ten minutes, it was problematic for the author to explain the disease to the parents and the maternal uncle. The author then called the father and the uncle deliberately in order to first see the reaction of the two men in the family. She approached the issue in a very tactful manner and explained to the father and the uncle that Abid is not suffering from a very serious disease and as a matter of fact he can see a little even now and he has been given treatment which has restored his eye sight. However he would need to come to the author for treatment along with his parents for at least two months in order to completely eradicate the symptoms. The moment the patient reported the correct colour of the shirts worn by his father and uncle the father broke down in tears and had to be calmed down. The author sent the uncle to the mother who was sitting outside in order to break the good news to her slowly and by the time she entered the consulting room with her brother they were extremely happy. When they finally left, the patient went running up the stairs without the help of any of his relatives. The patient was released from the clinic and came to see the author on an out patient basis for a few days. After that they finally decided to terminate the treatment because no symptoms had appeared even after the two weeks of treatment. This case was treated by the author in 1981 and she knows the family very well as friends now because the patient is happily looking after his business, parents, wife and three children.

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HUMAN RIGHTS : A COMPARATIVE STUDY OF MALE ATTITUDES TOWARDS UNIVERSAL HUMAN RIGHTS IN GENERAL AND FEMALE RIGHTS IN PARTICULAR

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and

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ABSTRACT

This study was conducted to compare the attitudes of different professional groups of educated Pakistani males towards human rights in general and female rights in particular.

For this purpose questionnaire technique was used. Two questionnaires "A" and "B" were developed using the United Nation's Bill for Human Rights. Questionnaire "A" seeks to measure attitudes towards Human Rights, while "B" does the same for Female Rights. The sample consisted of 230 educated males from 23 different sections of society. Responses to the questionnaires A and B were analyzed as to the significance of the difference. Results showed significant differences in attitudes towards the rights described in A and B. The differences were significant at p=0.005 level. Another important point to emerge was the difference in the willingness to the grant of rights based on gender by various professional groups. On the basis of the results obtained it can be concluded that all the participant samples were in favor of granting universal Human Rights to all humans. They were not so unequivocal when the grant of the same rights to females was concerned.

INTRODUCTION

Human rights have traditionally been a concern of the politicians and social workers. In recent times, however, scientific and other professional groups have also taken up a stand for the acceptance of universal human rights. American Psychological Association (APA) has been one of the many such scientific and professional groups. The APA council adopted a resolution on February 1987, in favour of acceptance of Universal Human Rights. In the words of one of the leading APA members "the APA Council resolution is provocative and seeks to promote knowledge of and compliance with United Nations's Declaration and Instruments on Human Rights, because a large number of these have special relevance to psychology" (Rosenzweig, 1988,p. 79).

Although one includes women among humans when one talks of human rights but the reality is unfortunately different. The rights which would be a norm for males are generally denied to females. Attitudes towards women,their role in the family and society has been of interest to psychologists, politicians, women's groups, social workers and others. A fair body of literature on women's issues also exists (Bernard, 1974; Cohort,1975; Deutsch,1971; Eichembau and Orbach, 1983; Lips and Colwill, 1986 are some of the many available). Why women do not enjoy the same rights as males, has been explained in innumerable ways.

One fairly common view is that women are generally subordinate to men because of their physical and biological inferiority. They are generally small in height, physically weak, less aggressive, handicapped with the burden of child bearing and rearing. In short women are not equal to men because of theirphysical and biological make-up (Rose, Lewontin and Kamin, 1984; Weisstein, 1976). Another view not as dismissible as the first one, but condescending anyway, holds that women are equal to men but still different. Hence there is division of labour. Their role is different from men. They are good at housework, nursing, looking after the sick and teaching. They can be good doctors, social workers or clerks and sales persons. They cannot match men in rational thinking,mathematical and scientific reasoning. They are no good at leadership (Lips and Colwill,1978).

Women in Pakistan suffer from very many handicaps. According to the World Bank's World Development Report (1990) a girl child has greater chances of dying before the age of five than a boy child (139:128);fewer females go to primary school compared to males (49:100); fewer girls go to secondary school than boys (39:100);the rate of mortality at the time of giving live births is among the highest in the world (600 per 100,000 live births).

In Pakistan there are very many stereotyped views about what a woman can or should be. The birth of a girl child is often a sorrowful occasion, often leading to strained relations in the family. A divorced female has no place in society; has no rights to property. A female is supposed to be patient, obedient, and sacrificing. She should be willing to take on a secondary position to men whenever the occasion demands. The stereotypical attitude towards girls is very harsh and supports strict control of their activities in and outside home (Duncon, 1990; Hassan 1982a; Mumtaz and Shaheed, 1987). In short even at an early age the girl child does not enjoy the same rights as their male counterparts.

Tariq (1987) found no concessions for female convicts in Pakistani Jails. In fact they had fewer freedoms and rights than male convicts. Female convicts generally thought that their treatment by jail authorities was inhuman.

The main aim of the present study was to assess the degree of freedom and quantum of universally accepted rights, Pakistani males are willing to grant to females. For this purpose a questionnaire technique was used to compare attitudes towards Universal Human Rights (HR) in general and female rights (FR) in particular. On the basis of general observations and available research studies, it was hypothesized that men will be less inclined to grant the same rights to women as they would be willing to grant to human beings.

The questionnaire was based on the International Bill of Human Rights, adopted by the United Nations General Assembly in 1978. This bill recognizes the right of every human being to life, liberty, security and privacy of person. The formulation of this bill took thirty years (1948 - 1978) in order for it to be acceptable to nations of diverse peoples, religions, cultures and ideologies. It therefore seemed appropri-

ate to use this bill as the basis for the construction of the questionnaire for assessing attitudes towards the rights of individuals.

METHOD AND PROCEDURE

Sample: For the present study a sample of 230 males belonging to 23 different sections of society in the city of Lahore was taken. These 23 sections of society are: advocates, armed forces personnel, bankers, business executives, civil service officers of the CSP cadre, college and university teachers, radio and television artists and producers, judges and other officials of the judiciary, industrialists, landlords, policemen, social workers, political activists, businessmen, moulanas, primary and secondary school teachers, clerks, students and transport drivers. There were ten subjects from each group in the total sample. All respondents had education upto or above matric level.

Questionnaire : The questionnaire was prepared in the Urdu language and was based on the articles in the Bill of Rights as adopted by the United Nations General Assembly. The first draft contained 52 items with one/two questions on each of the 30 articles in the aforementioned bill. This questionnaire called "A" did not specify whether the right under question is gender specific. A second questionnaire call "B" was then prepared by modifying "A" through the substitution of the word "female" in place of "human" or "individual" in each item. Conscious effort was made to construct questions free from any "bias". The respondents could answer the question affirmatively, "Yes"; negatively, "No"; or remain neutral by ticking off "to some extent".

This questionnaire was changed twice after administering it to ten people who did not form part of the final sample. On the basis of the preliminary survey confusing items were deleted and some were replaced. Finally the items of each questionnaire were given to three judges for evaluation (one each from Social Sciences Research Center (SSRC), Aurat Foundation, and Human Rights Commission of Pakistan). The final questionnaires "A" and "B", that were modified according to their advice, consisted of 48 items, which the respondents could answer with "agree", "no" or ``to some extent''. Questionnaire "A" in its final form was general while "B" was specifically to assess the attitudes towards

granting rights to women. All questions had to be answered with only one of the three given options. Some typical items from the two questionnaires are given below.

From "A":

Q.21. Do you think that all people have a right to property and inheritance?

Yes/No/to same extent

Q.44. Do you think parents have a right to make decisions regarding the future of their children ?

Yes/No/to some extent

From "B":

Q.22. Do you think women have the right to ownership and inheritance of property like men ?

Yes/No/to some extent

Q.45. Do you think that a mother has the same right to make decisions regarding the future of her children as the father ?

Yes/No/to some extent

Administration of the Questionnaires: All the 230 respondents in the sample were administered questionnaire "B" first. After twenty four hours they were administered questionnaire "A". They were instructed to answer all questions by ticking only one of the three given options: Yes, No, or To some extent.

Scoring: Most of the questions were of direct type. A "Yes" meant a willingness to grant the right under discussion. It was given a score of 2. A "No" response to a question meant an unwillingness to grant the right under review ; it thus was given a zero score. The response "to some extent" was given a score of 1. However since some questions were of

negative nature (Items 6,7,11,20 and 31 in questionnaire "A",and items 7,10,20 and 22 in questionnaire "B"),for these questions a "Yes" response meant that the respondent was not willing to grant that particular right and got a zero score while a "no" response got a score of 2. Finally aggregate scores were calculated for each respondent on both the questionnaires separately.

The total score could range from "zero", that is a total unwillingness to grant any right, to a perfect score of 96 which signified a willingness to grant every right permissible under the Bill of Human Rights.

Analysis: The arithmetic average and difference between the means of scores for the total sample and for each of the 23 sections were calculated for the two questionnaires. Difference between mean scores of questionnaires "A" and "B" were tested for significance by t-test for paired variables (Alder and Roessler, 1977) . A one - tailed test was applied because it was hypothesized that respondents will grant more rights to human beings in general as compared to females in particular.

RESULTS AND DISCUSSION

The average scores for the total sample of 230 respondents on "human rights" was $\overline{X} = 84.78$ and for "female rights" $\overline{X} = 72.82$. The difference between the two $\overline{X}$ ' s was significant:

$t = 8.07,\ df = 207,\ p < .005.$

The 23 sections of the sample were also analyzed. For each group means and the difference between means of questionnaires "A" and "B" were calculated and tested for significance.

The results are shown in Table I.

TABLE I

MEAN SCORES OF THE SUB-SAMPLES ON QUESTIONNAIRES A AND B, DIFFERENCE SCORES, T-SCORES AND THE SIGNIFICANCE OF DIFFERENCE BETWEEN SCORES

Profession	A	B	Difference	t-score	Level of signi-cance
Advocates	79.10	69.10	10.0	6.74	.005
Armed forces Officers	84.00	70.50	13.5	9.10	.005
Bankers	86.50	76.70	9.8	6.61	.005
Business Executives	84.00	74.70	9.3	6.27	.005
C.S.P. Officers	88.40	78.40	10.0	6.74	.005
University Teachers	90.20	82.30	7.9	5.32	.005
Clerks	78.50	59.90	18.6	12.54	.005
Doctors	86.40	75.80	10.6	7.15	.005
Engineers	85.70	79.20	6.5	4.38	.005
Industrialists	88.90	80.10	8.8	5.93	.005
Journalists	87.10	76.70	10.4	7.01	.005
Judiciary	91.60	86.60	5.0	3.37	.005
Landlords	84.80	69.90	14.9	10.05	.005
Labour Leaders	88.00	80.50	7.5	5.06	.005
Maulanas	72.30	54.80	15.5	10.45	.005
Political Activitists	82.00	66.00	16.0	10.79	.005
Policemen	83.20	67.20	16.0	10.79	.005
School Teachers	83.00	64.70	18.3	12.34	.005
Radio T.V.	84.30	72.30	12.0	8.09	.005
Social Workers	91.50	81.40	10.1	6.81	.005
Shopkeepers	82.60	69.10	13.5	9.10	.005
Students	85.20	75.10	10.1	6.81	.005
Drivers	81.90	63.90	18.0	12.14	.005
Total	84.78	72.82	11.96	8.07	.005

All differences were significant at p = .005 levels. Irrespective of their professions every group was willing to grant more rights to human beings in general but was less agreeable to the grant of the same rights to females in particular.

Our hypothesis was proved significantly not only for the total sample but also for each of the 23 different sections of society.The sample belonging to the judiciary scored highest on both human rights and female rights. The difference in their scores was minimal. Maximum difference was obtained for the section consisting of "clerks". It can be speculated that the judiciary is in general more aware of human rights and is less discriminatory on the basis of sex differences. They also tend to be better educated and more exposed to the world in general. Clerks on the other hand are less educated (matriculates on the average) and generally lower on the economic ladder, hence their prejudice against women. A more definitive conclusion, however, requires more in-depth study. The section consisting of "Maulanas" scored low on both questionnaires. They were in general less willing to grant rights to any one, males or females . Their mean score for human rights was 72.3 which declined to 59.8 for female rights. It may be pointed out that all respondents in the sample were employed as "Pesh Imams" in mosques. Perhaps the better educated "Ulemas" might score differently.

On the higher side, social workers scored almost equally well with the judiciary on human rights, (for judiciary $\overline{X}$=91.6; for social workers $\overline{X}$ = 91.5). However their score on female rights was low compared to that of the judiciary (81.4 for social workers, 86.9 for judicatory). For details see Table II.

There seems to be a relationship between educational level and attitudes towards human rights in general and female rights in particular. In contrast to clerks, university teachers scored higher on both questionnaires. All the teachers were educated to the level of M.A./M.Sc or higher (M.Phil., Ph.D.). Their higher level of education and wider experience inside and outside Pakistan may have made them more liberal in their views of rights irrespective of gender.

TABLE II

RANGE AND DISTRIBUTION OF SCORES FOR THE DIFFERENT SECTIONS OF THE SAMPLE ON QUESTIONNAIRE 'A' (HUMAN RIGHTS) AND 'B' (FEMALE RIGHTS)

	Ranges		Scores and their Frequencies											
			Below 50		50-59		60-69		70-79		80-89		90 & above	
Profession	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Advocates	63-94	51-93	0	0	0	3	2	2	3	3	4	1	1	1
Armed Forces Officers	60-94	49-92	0	1	0	1	1	3	1	2	5	2	3	1
Bankers	79-93	67-93	0	0	0	0	0	3	1	3	6	3	3	1
Business Executives	64-96	52-93	0	0	0	2	2	1	1	3	4	3	3	1
C.S.P. Officers	79-94	66-91	0	0	0	0	0	2	1	3	5	4	4	1
University Teachers	71-96	67-96	0	0	0	0	0	2	1	3	2	1	7	4
Clerks	60-91	33-75	0	3	0	1	1	3	4	3	4	0	1	0
Doctors	69-95	52-95	0	0	0	2	1	1	1	3	3	1	5	3
Engineers	77-91	51-89	0	0	0	1	0	0	3	2	4	7	3	0
Industrialists	72-96	59-95	0	0	0	1	0	0	1	5	3	1	6	3
Journalists	76-94	59-90	0	0	0	1	0	2	2	3	4	2	4	2
Judiciary	89-96	77-96	0	0	0	0	0	0	0	2	4	4	6	4
Landlords	74-96	56-96	0	0	0	2	0	3	2	3	6	1	2	1
Labour Leaders	74-96	56-96	0	0	0	1	0	1	2	2	3	2	5	4
Maulanas	57-89	35-72	0	4	2	2	2	3	4	1	2	0	0	0
Political Activists	59-96	35-93	0	3	1	1	1	0	1	4	5	0	2	2
Policemen	70-95	49-92	0	1	0	3	0	2	3	2	5	0	2	2
School Teachers	74-92	47-89	0	1	0	2	0	4	3	2	6	1	1	0
Radio T.V.	64-96	52-91	0	0	0	2	2	3	0	1	4	3	4	1
Social Workers	85-96	71-96	0	0	0	0	0	0	0	4	2	4	8	2
Shop Keepers	66-95	50-90	0	0	0	3	1	2	4	3	2	1	2	1
Students	76-95	59-94	0	0	0	1	0	3	2	2	7	3	1	1
Drivers	70-92	44-83	0	2	0	1	0	4	4	1	5	2	1	0
Total :	57-96	33-96	0	15	3	30	13	44	44	60	96	46	74	35

CONCLUSIONS

A definite conclusion can be drawn from the present study. All sections of society irrespective of their profession are willing to grant most of the rights listed in the "Bill of Human Rights" to people in general. However they are generally less willing to grant the same rights to females in particular. Professionals such as university and college teachers, judiciary, and social workers are more willing that all people should enjoy human rights than are clerks and maulanas. But this difference can perhaps be explained by the generally lower educational level of these groups. A closer look also reveals a direct relationship between a positive attitude towards granting of human rights to all and the educational attainment of the respondent. A more firm conclusion to this effect will require a study based on a larger sample, whose members may be matched in various respects (age, profession, experience of working and interacting with female co - workers) except for educational level.

REFERENCES

Alder,H.L. & Roessler,E.B. (1977) Introduction to Probability and Statistics. 5th edition. San Francisco: W.H.Freeman and Company.

Bernard,J. (1974). The Structure of Motherhood. New York: The Dial Press.

Cohort, M.(1975) Unsung Champions of Women. Albuquerque: University of New Mexico Press.

Deutsch,H.(1971) The Psychology of Women. New York:Grune & Stratton, Inc.

Duncon, E.(1990) Breaking The Curfew. London: Arrow Books Ltd.

Eichembau,L.& Orbach, S. (1983) Understanding Woman. England: Penguin Books.

Hassan, I.N. (1982 a) Psychological Profile of Rural Woman. Islamabad:National Institute of Psychology .

Hassan, I.N. (1982 b) Role and Status of Women in Pakistan: An Empirical Research Review. Islamabad: National Institute of Psychology.

Lips,H.M.& Colwill,N.L. (1986) The Psychology Of Sex Differences. New Jersey: Spectrum Books.

Mumtaz,K.& Shaheed,F.(1987) Woman In Pakistan: Two Steps Forward One Step Back. Lahore: Vanguard Books.

Rose, S. , Lewontin,R.C. and Kamin,L. (1984). Not In our Genes.U.K:Penguin Books.

Rosenzweig, M.R. (1988) Psychology and The United Nation's Human Rights Effort. American Psychologist, 43, 79-86.

Tariq, P.N. (1987) A Study of Female Crime In Rural and Urban Areas of Pakistan. Islamabad : National Institute of Psychology.

United Nations. (1978) The International Bill of Human Rights. New York .

Weisstein, N. (1976) Psyshology Constructs the Female, in Sue Cox (ed). Female Psychology: The Emerging Self. New York: St. Martins Press.

World Development Report (1990). New York: The World Bank.

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THE RELATIONSHIP BETWEEN ANXIETY AND DEPRESSION

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ABSTRACT

The present study was aimed at determining the relationship between anxiety and depression. A total of 36 female and 72 male patients coming to the Institute of Clinical Psychology, to whom IPAT Anxiety and Depression Scales, were administered for the purpose of diagnosis, served as the sample for the present study. The Pearson Product Coefficient of Correlation was computed for both sexes separately as well as together. The results indicate presence of high correlation between anxiety and depression for all groups studied.

INTRODUCTION

Anxiety and depression have been the two most frequently investigated forms of psychopathology, and their relationships remain unclear, at least from a psychometric perspective.

According to Greist, Jefferson and Marks (1986), people who are depressed usually feel anxious as well. Depression may accentuate anxiety and worry about everyday problems that individuals previously took in

their stride. Difficulty making up one's mind and other indications of anxiety may also emerge with depression.

Roth, in Newcastle and Cambridge, has been instrumental in making the case for the separation of distinct syndromes of anxiety and depression. Anxiety states and neurotic depression, it is argued, fall into separate groups, and commonly used rating scales such as the Hamilton Scale are able to differentiate the clinical syndromes in some 90% of cases (Roth and Mountjoy, 1982). The presence of prominent anxiety reduces the chances that there is a depressive syndrome as well, and such an anxiety syndrome group will consist of patients with poor previous adjustment, whereas depressive patients would have stable personalities with better adjustment (Roth et al., 1972). Prognosis would depend on the presence of anxiety when it would be poor, or depression, when it would be better (Kerr et al., 1972).

Several authors including Goldberg (1982) have shown that the available evidence did not justify a separation into entities. The general view would be, if there was significant depression, the diagnosis is depression, anxiety being an ancillary feature. Some 95% of depressed patients have features of psychological and/or physiological manifestations of anxiety. These include feelings of apprehension, tension, tension-related pain, an inability to relax, poor memory, related poor attention and concentration, irritability, insomnia, loss of appetite and so on.

Russell and de Silva (1983) found that anxiety and depressive symptoms persisted in parallel. They argue that the mode of action of anitdepressant drugs on affective disorder is more general and fundamental and is not merely on a symptom, or a set of related symptoms, pointing to the easing of both anxiety and depressive features with antidepressant medication, or the failure to relieve both.

Priest (1983) states "around 80 percent of sufferers from either anxiety or depression are affected by both together."

Lewis (1934), in a now classic monograph on melancholia, described panic attacks as occurring in 7 of 61 patients. It appears that 15 to 30 percent with Major Depressive Disorder will experience Panic Attacks (PA) during the current episode of illness (Cassidy et al., 1957; Fawcett and Kravitz, 1983; Grunhaus, Rabin, Greden, Feinberg, and Herman, 1984; Leckman, Merikangas, Pauls, Prusoff, and Weissman, 1983; Leckman, Weissman, Merikangas, Pauls, and Prusoff, 1983; Mountjoy and Roth, 1982; Robinson et al., 1985; Roth et al., 1972; Woodruff, Murphy, and Kerjanic, 1967).

During the past decade numerous studies have addressed the issue of combined anxiety and depressive pathology from clinical, familial - epidemiologic, treatment outcome, prognosis, and psychobiological points of view. From these studies a consistent finding is emerging: The association of panic disorder (PD) with major depressive disorder (MDD) confers a particular quality to the clinical condition, probably that of a dual diathesis (Grunhaus, Haskett, Greden, & Tiongco, 1985; Leckman, Weissman, Merikangas, Pauls, and Prusoff, 1983).

The appearance of secondary depression in anxiety neurotics has been reported by Clancy, Noyes, Hoenk, and Slymen (1978) and Noyes, Clancy, Hoenk, and Slymen (1980). These authors found that approximately 45 percent of the anxiety neurotics they studied, a significant number of them having panic attacks, reported episodes of depression at follow-up; these episodes of depression were usually short-lived (less than two months) and of moderate severity. Schapira, Roth, Kerr, and Gurney (1972) reported on a four year follow-up study of patients with either depressive or anxious affect, finding that the anxious patients fared worse than depressives, more often showing unremitting illness. In this study, anxiety-phobic symptoms continued to be prominent in anxious patients, while the depressive features tended to disappear and not differentiate between the groups.

Recent investigations using the newer classification of anxiety disorders seem to aasociate secondary depressions with Panic Disorder. Raskin,

Peeke, Dickman, and Pinsker (1982) compared patients with Generalized Anxiety Disorder (GAD) and Panic Disorder and found that episodes of MDD were associated significantly more often with PD than with GAD; they also reported that most of these episodes of depression were unrelated to periods of anxiety.

The most comprehensive study published to date on this subject is that of Breier, Charney, and Heniger (1984). The authors reviewed the lifetime occurrence of MDD in 60 agora-phobic or PD patients; approximately 70 percent of their patients had had an episode of MDD during their lifetime. Those patients with the dual condition seemed to be more severely ill. Their symptoms were more intense, as manifested in higher depression, and anxiety ratings; PA occurred more often; and overall impairment due to the PA or agora-phobia was greater. The authors concluded that depression was independent of these features beacause: (1) In approximately one third of patients depression preceded the onset of the anxiety diagnosis; (2) an episode of depression was not necessarily associated with the worst anxiety period; (3) in half of the patients the secondary depression resolved while the anxiety symptoms were still prominent.

In order to determine the extent of relationship between anxiety and depression, several other studies have also been conducted taking student samples into consideration.

Researches by Gotlib (1984) and Meites et al., (1980) conclude that the differentiation of depression from other forms of maladaptive functioning such as anxiety on the basis of self-report instruments is problematical in non-clinical student samples.

Clark & Hemsley (1985) administered a questionnaire specially constructed to assess anxious and depressive thoughts in 303 college students. They also used the Beck Depression Inventory, the Trait Scale of the revised State-Trait Anxiety Inventory, and the Trait Scale of an obsessional inventory. Analysis revealed that trait anxiety and neuroticism were more strongly associated with depressive rather than anxious

cognitions. Obsessional complaints evidenced minimal association with anxious thoughts, although a moderate correlation was obtained between the former and depressive self-statements.

In a study by Dowd, Claiborn and Milne (1985), 134 undergraduates completed the State-Trait Anxiety Inventory, Attributional Styles Questionnaire (ASQ), Beck Depression Inventory (BDI) and scales assessing efficacy expectations, outcome expectation, situational perception of danger, and situational importance to assess attributional styles and cognitve measures associated with anxiety distinct from depression anxiety. Significant corelations were found among the BDI and efficacy expectation, bad outcomes-stable, and trait anxiety.

Dobson (1985) investigated the relationship between the contructs of anxiety and depression through the administration of 9 self-report scales to 31 male and 71 female undergraduates. Scales included the State-Trait Anxiety Inventory, Self-Rating Depression Scale, Beck Depression Inventory, the Minnesota Multiphasic Personality Inventory (MMPI) Depression Scale, and the Anxiety and Depression Scales of the Multiple Affect Adjective Check List. Results show strong correlations among all measures, and factor analyses revealed one major Psychological Distress factor for each sex. No sex differences were found on the measures employed. Findings reveal the need for caution in employing self-report scales of anxiety or depression for forming research groups.

Tanaka - Matsumi and Kameoka (1986) administered the Self-Rating Depression Scale, Beck Depression Inventory, Depression Adjective Check Lists, State-Trait Anxiety Inventory,Taylor Manifest Anxiety Scale,S - R Inventory of Anxiousness, Marlowe - Crowne Social Desirability Scale,and Edwards Social Desirability Scale to 135 male and 256 female undergraduates. Pearson Correlation Coefficients indicated strong relationships between measures of depression and measures of anxiety.

Although much research in the areas of anxiety and depression has been conducted on student samples as well as on clinical groups, findings

have been neither consistent nor generalizable.

The present study is also on attempt at seeking to clarify the relationship between anxiety and depression as measured by self-report questionnaires.

METHOD

Adults, to whom the IPAT Anxiety Scale and the IPAT Depression Scale were administered for the purpose of assessment in the Institute of Clinical Psychology, University of Karachi, served as subjects. These patients were registered for psychotherapy between January 1985 and December 1990.

A total of 108 patients were selected for the study which included 72 males and 36 females, their ages ranging from 18 to 50 years.

The Pearson Product Coefficient of Correlation was computed, in order to determine the relationship between anxiety and depression.

RESULTS

TABLE

CORRELATION BETWEEN ANXIETY AND DEPRESSION OF 72 MALE AND 36 FEMALE CLINICAL CASES

GROUPS	CORRELATION	df	P
Male	0.75	70	< .001
Female	0.86	34	< .001
Combined	0.78	106	< .001

DISCUSSION

With respect to the relationship between scores of anxiety and depression measures, the table indicates that these scores are highly correlated. The correlation of anxiety and depression for female clinical cases is more (r = .86, df = 34, P< .001) as compared to the correlation of anxiety and depression measures for male clinical cases (r = .75, df = 70, p < .001).

Although the anxiety and depression measures used in the present study are self-reports, it appears surprising that such large correlations were found between two inventories measuring two separate constructs. It may be considered questionable that both depression and anxiety tend to be present to a similar degree in the fairly large sample of patients studied.

The strong correlations obtained in the present study between self-report measures of anxiety and depression call into question discriminant validities of these measures. From a measurement perspective the strong relationships between the anxiety and depression measures call for an empirical investigation of the nomological network (Cronbach & Meehl, 1955) of the construct of depression.

The high correlation obtained, therefore, also calls into question the administration of the two different measures on patients for the purpose of diagnosis since administration of any one of the scales (IPAT-A and IPAT-D) can be used to usefully predict the results on the other. Administration of a single instrument would ofcourse also save time and effort of both the patient and the assessor.

It must also be noted that both the depression and anxiety scales have been developed in the U.S. and have not been restandardized on a Pakistani population. Cultural differences in the experiencing and reporting of psychopathological symptomatology cannot be discounted in their unknown potential effect on the Pakistani sample's responses to the scales.

REFERENCES

Breier, A., Charney, D.S., and Heninger, G.R. (1984). Major depression in patients with agoraphobia and panic disorder. Archives of Generel Psychiatry, 41, 1129-1135.

Cassidy, W.L., Flanagan, N.B., Spellman, N., and Cohen, M.E. (1957). Clinical observations in manic depressive disease. Journal of the American Medical Association, 164, 1537-1546.

Clancy, J., Noyes, R., Hoenk, P.R., and Slymen, D.J. (1978). Secondary depression in anxiety neurosis. Journal of Nervous and Mental Diseases, 166, 846-850.

Clark, D. A. and Hemsley, D.R. (1985). Individual differences in the experience of depressive and anxious, intrusive thoughts. Behaviour Research and Therapy, Vol. 23 (6), 625-633.

Cronbach, L.J. and Meehl, P.E. (1955). Construct validity in psychological tests. Psychological Bulletin, 52, 281-302.

Dobson, K.S. (1985). An analysis of anxiety and depression scales. Journal of Personality Assessment, 49(5), 522-527.

Dowd, E.T., Claiborn, C.D., and Milne, C.R. (1985). Anxiety, attributional style, and perceived coping ability: Anxiety Attribution, Coping Behaviour. Cognitive Therapy and Research, 9(5), 575-582.

Fawcett, J., and Kravitz, H.M. (1983). Anxiety syndromes and their relationship to depressive illness. Journal of Clinical Psychiatry, 44 (section 2), 8-11.

Goldberg, D.P. (1982). Depressive reactions in adults. In Russell, G.F.M. and Hersov, L.(eds.) Handbook of Psychiatry, Vol. IV, Cambridge: Cambridge University Press.

Gotlib, I.H. (1984). Depression and general psychopathology in university students. Journal of Abnormal Psychology, 93, 19-30.

Greist, J.H., Jefferson, J.W., and Marks, I.M. (1986). Anxiety and its treatment. Isaac, American Psychiatric Press, Inc.

Grunhaus, L., Haskett, R., Greden, J.F., and Tiongco, D. (1985). Serial DSTs in patients with MDD and MDD plus panic disorder. Athens: World Psychiatric Association Regional Symposium.

Grunhaus, L., Rabin, D., Greden, J. F., Feinberg, M., and Hermann, R. (1984).Simultaneous panic and depressive disorder: Neuroendocrine and sleep EEG correlates. Los Angeles: Society for Biological Psychiatry Meeting.

Kerr,T.A.,Roth,M.,Schapira,K.and Gurney,C. (1972).The assessment and prediction of outcome in affective disorders.British Journal of Psychiatry,121, 167-74.

Leckman,J.F., Merikangas, K.R., Pauls,D.L.,Prusoff,B.A., and Weissman,M.M. (1983). Anxiety disorders and depression.Contradictions between family study data and DSM-111 conventions.American Journal of Psychiatry, 140, 880-882.

Leckman,J.F., Weissman, M.M., Merikangas, K.R., Pauls, D.I., and Prusoff, B.A. (1983).Panic disorder and major depression.Archives of General Psychiatry,40,1055-1060.

Lewis,A.J. (1934).Melancholia: A clinical survey of depressive states. Journal of Mental Science, 80, 277-378.

Meites, K., Lovallo, W., and Pishkin, V. (1980). A comparison of four scales for anxiety, depression and neuroticism. Journal of Clinical Psychology, 36, 427-432.

Mountjoy, C.Q. and Roth, M. (1982). Studies in the relationship between depressive disorder and anxiety states. Part 1 Journal of Affective Disorder, 4, 127-147.

Noyes, R.,Jr., Clancy, J., Hoenk, P.,and Slymen, D.J. (1980). The prognosis of anxiety neurosis. Archives of General Psychiatry, 37, 173-178.

Priest, R. (1983). Anxiety and Depression. United Kingdom:Martin Dunitz Limited.

Raskin, M., Peeke, H.V.S., Dickman, W., and Pinsker, H. (1982). Panic and generalized anxiety disorders . Archives of General Psychiatry, 39, 687-689.

Robinson, D.S., Kayser,A., Corcella, J., Laux, D., Yingling, K., and Howard, D. (1985). Panic attacks in outpatients with depression:Response to antidepressant treatment. Psychopharmacology Bulletin, 21, 562-567.

Roth, M., Gurney, C., Garside, R.F. and Kerr, T.A. (1972). Studies in the classification of affective disorders. The relationship between anxiety states and depressive illnesses. British Journal of Psychiatry, 121, 147-161.

Roth, M. and Mountjoy, C.Q. (1982). The distiction between anxiety states and depressive disorders. In Paykel, E.S. (ed.) Handbook of Affective Disorders. Edinburgh: Churchill Livingstone.

Russell, G.F.M. and de Silva, P. (1983). Observations on the relationship between anxiety and depressive symptoms during the course of depressive illnesses. British Journal of Clinical Pharmacology, 15, 147S-153S.

Schapira, K., Roth, M., Kerr, T.A. and Gurney, C. (1972). The prognosis of affective disorders: The differentiation of anxiety states from

depressive illness. British Journal of Psychiatry, 121, 175-181.

naka - Matsumi, J. and Kameoka, V.A. (1986). Reliabilities and concurrent validities of popular self-report measures of depression, anxiety, and social desirability. Journal of Consulting and Clinical Psychology, 54(3), 328-333.

oodruff, R.A., Murphy, G.E., and Kerjanic, M. (1967). The natural history of affective disorders. Journal of Psychiatric Research, 5, 255-263.

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THE EFFECT OF SOFT INSTRUMENTAL MUSIC ON THE EXECUTION OF PSYCHOMOTOR ACTIVITIES AS A FUNCITON OF SEX DIFFERENCE

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ABSTRACT

In this study the effect of soft instrumental music on the execution of psychomotor activity was investigated under laboratory controlled conditions. Due attention, however, was paid to the gender related differential effect of music. Well-equated 60 male and 60 female subjects were randomly assigned to two competing treatment conditions, i.e., "music" (M) and "non music" (NM). Data analysis revealed a significant difference between M and NM conditions taking together the performance of the 60 male and 60 female subjects, whereas no significant difference was observed to exist between males and females constituting the two sub groups under music conditions. However female subjects did tend to do better than their counterpart male subjects under music conditions. NM condition in this study also served as a control group.

INTRODUCTION

It is a matter of daily observation that prolonged and active engagement in any one actvity shows up its detrimental effects on one's performance. The effect may be overtly visible or latent; it may be

reflected in the form of decreased vigour, such as reduction in the frequency of response or the quality of performance. It is equally likely that the effect may remain unexpressed, because of some other accompanying conditions, for some time or as long as the organism is in the state of activity and result in a total collapse due to the cumulative effect of exhaustion later on. It is also quite likely and true that certain antecedent conditions may keep reducing such detrimental effects by providing the subject with some recreation and momentary relaxation concurrently, without seriously interfering with the task at hand; something wich keeps refreshing and thus `re-energizing'the sensory nervous system by way of checking or reducing the exhaustion or fatigue from accumulating to an alarming level.

When intermittent pauses of rest have been used to the advantage of the learner/subject at the cost of time spent,no doubt the performance has been found stabilized if not significantly improved.If fatigue and monotony alone are the factors considered responsible for the performance to be depressed then provision of such conditions which are known for their soothing effect with fatigue-reducing properties can also be employed profitable in order to achieve the same objective as served by the rest pauses. Light music for that matter, if allowed while the work is on, is apt to benefit the involuntary fluctuation of attention maximally and will help to keep the fatigue level well below the critical limit.

Music has been used since prehistoric times to produce ecstasy and enthusiasm, to stir up aggression for battle, to soothe or express feelings, to facilitate communication, to effect healing and so on. The effect of music on mood, behaviour and health are mentioned in the Bible and in the writings of Confucius, Plato, Aristotle and Pythogaros(Motet, 1984). He also recognized the therapeutic value of music as a stimulating agent and called it a great amorphous power.

In a study conducted under well controlled laboratory conditions Mursell(1937) observed tonal stimulation tremendously regulating the pulse rate, breathing cycle, blood pressure and metabolism. It's

effect was recorded in delaying the onset of mental and muscular fatigue to the extent that it increased the overall proficiency. In the same study Mursell noted the psychogalvanic reflexes being influenced and the threshold of sensitivity to other forms of stimuli decreasing significantly. Similar findings based on a survey conducted by using a pre-structured questionnaire by Flack (1966) revealed that 81.1% responded by identifying music as a fatigue reliever, while 93.3% reported it as a monotony breaker in their work; 95.2% recognized it as making their work more enjoyable and 94.1% identified it as helping them to overcome their nervousness and feelings of anxiety. Hundreds of plant managers have used music to relax tension and to stimulate production. Factory workers know that music often helps to reduce fatigue; it tends to reduce the strain caused by the factory noise. Music during working hours not only increases production but also provides widespread employee satisfaction(Smith, 1964).

A series of studies reported during the 1940s indicated that special work situations necessitated particular types of music or rhythms. Such facilitative effects of music on the performance of factory workers have been reported and duly endorsed by empirical data by Wyatt(1937), Kerr(1971), Smith(1964) and McGhee(1947). In another study Roberts(1966) reported a general increase in proficiency on routine jobs from 5 to 20 percent when background music was provided. Similarly qualitative as well as quantitative improvement in production under music condition has also been reported by Kerr(1971).

Further analysis revealed that instrumental music, particularly, is more effective than vocal music. In one study architectural drafting was found to benefit significantly more from instrumental music than vocal music (Kayani, 1981). Instrumental rather than vocal music is preferred during working hours by the majority of workers in big departmental stores and shopping arcades. Newman et al (1971) reported that young inexperienced employees, engaged in doing simple repetitive work, increased their out put when stimulated by music. The use of well selected music or a good radio programme may be of great benefit in the

operation theater (Motet, 1984). Factory workers have been noted to prefer working where music is played rather than where it is not played (Uhsbrock, 1971).

The study of sex difference has had a long and controversial history. Criticism has ranged from the charges that studies of sex difference usually reinforce sex stereotypes (Morgan, 1979) to condemnation of this line of research as inherently sexist. Allen (1985) and Morgan (1979) noted that the very popularity of the term `sex differences' reflects a strong belief that such differences do exist and are important. Further studies, however, established that sex differences are not very impressive and significant during the early years, although girls do show an early and consistent superiority in their verbal behavior. Such differences become more noticeable about the time of adolescence. Girls and women generally do better on verbal problems, on perceiving details quickly and accurately, and on making rapid, accurate manual movements. Boys and men on the other hand surpass females on spatial, numerical and mechanical tasks and are less tolerant of fatigue (Morgan, 1979). According to Maccoly and Jacklin (1985) girls are primarily auditory and boys are visual.

Critical survey of the available relevant literature lead the researchers to formulate the following hypotheses:

1. Execution of psychomotor activity is facilitated by the concurrent presence of constant soft instrumental background music.

2. Female subjects are more susceptible to the fatigue reducing property of soft instrumental music than male subjects.

METHOD

Subjects: The test sample consisted of 60 male and 60 female postgraduate students enrolled with different departments of the University

of the Punjab, falling with in the age range 21-25 years. Two treatment conditions were identified; therefore, 30 male and 30 female students,randomly selected, were assigned to each of the two treatment conditions.

Apparatus and Equipment: No sophisticated gadgetary was required in this experiment except a cassete player with two speakers used for the deliverance of prerecorded folk instrumental music as the stimulus material to the subjects. A stop watch was used for recording precisely timed (15 seconds) 30 consecutive trials.

Procedure: Entire testing was accomplished in a 12 by 24 feet sound proof room, in batches of 10 subjects at a time. The seating arrangement and the positioning of the speakers ensured that each subject received the signals (stimulus) of the same controlled quality.

Piror to the beginning of the actual experiment the subjects were adequately briefed through carefully worded printed directions read out to them regarding their assignment in the experiment. Each subject was provided with a small booklet of six paper slips with five small rectangles printed on each, and a new ball-point pen.

The task assigned consisted of marking small crosses (x) in each of the five pre-printed rectangles on each of the six leaves boolet, thus contituting and series of 30 consective trials (each trial being represented by the markingh of one rectangle). Following the announcement of "GO" signal, the subjects were required to start and keep working without pause. Each trial (marking within one rectangle) was precisely time for 15 seconds. On the caution "NEXT", from the experimenter, of the completion of each 15 seconds trial, the subjects were to start marking in the rectangle which was next in order. In this manner they were required to mark all the 30 rectangles, each constituting a trial.

For the music (M) treatment condition, one half of the total test sample (both male and female), was required to complete their

assignment in the presence of sof instrumental music constantly played in the background, where as no such background effect was provided to the non-music (NM) control group.

RESULTS

For statistical treatment of the data the actual recording of the performance of 120 subjects across 30 consecutive trials was re-organized so as to constitute six blocks of five trials each. Means were computed per unit block to see the progressive change from 'block' to 'block' and to locate the points of significant 'deviations' and `parallels' in the process of learning under the two treatment conditions (i) disregarding the sex difference and (ii) taking into account the sex difference separately. t Test was applied to see the significance of difference between the means.

TABLE I (a)

THE OVERALL MEAN SCORES OF 120 SUBJECTS UNDER 'MUSIC' AND 'NON MUSIC' CONDITIONS ACROSS ALL THE SIX BLOCKS OF FIVE TRIALS EACH.

Treatment Conditions	BLOCKS OF TRIALS						
	I	II	III	IV	V	VI	Means
Music (M + F)	138.595	159.680	178.20	165.530	130.435	140.465	152.135
Non Music (M + F)	138.980	160.435	177.085	160.235	127.870	117.750	148.039
Means	138.980	160.058	177.643	165.085	129.153	129.108	

$t = 0.35$

As evident from Table I (a) above and no pronounced difference is visible from the first thorught the fifth block of trials except on the sixth block where the mean score under music condition, i.e. 140.465 and its counterpart under non music condition, i.e. 117.750 shows a marked contrast.

TABLE I (b)

OVERALL MEANS AND VARIANCE OF 120 SUBJECTS ACROSS SIX BLOCKS OF TRIALS UNDER MUSIC AND NON MUSIC CONDS.

T. Conditions	N	Means	Variance	
Music	60	152.135	371.698	t = 0.35
Non Music	60	148.039	546.999	df = 118

It is however noteworthy that the peak performance under the two treatment conditions reaches its peak on the third block of trials (178.20 : M /vs/ 177.085 : NM) which tends to diminish more rapidly in case of Non Music and slowly under Music condition culminating in a marked difference on the sixth block of trials. This behavior of the respondents suggests a further probe by focusing on the first, third and last blocks of trials.

TABLE II (a)

SELECTED THREE BLOCKS OF TRIALS.

T. Conditions	I	III	VI
Music (M+F)	138.595	178.20	140.465
Non Music (M+F)	138.980	177.085	117.750

It may be noted that on very first block of trials the two mean scores, i.e., 138.595 (M) and 138.980 (NM) are nearly the same, showing nothing more than that the two groups were so well equated that they entered the task with similar preparation.

TABLE II (b)

MEANS AND VARIATIONS OF 120 SUBJECTS ON THE FIRST BLOCK OF TRIALS UNDER MUSIC AND NON MUSIC CONDITIONS.

T. Conditions	N	Means	Variance
Music (M+F)	60	138.595	25.91
Non Music (M+F)	60	138.980	37.02

t = 0.51 df = 118

On the third block of trials, as evident from Table II (a), the difference is not significant at .05 and .01 level, though the score range reaches its peak yielding different t values as shown in Table II (c) below:

TABLE II (c)

MEANS AND VARIANCE OF 120 SUBJECTS ON THE THIRD BLOCK OF TRIALS UNDER MUSIC AND NON MUSIC CONDITIONS.

T. Conditions	N	Mean	Variance
Music	60	178.20	14.07
Non Music	60	177.085	65.09

t = 0.86
df = 118

A similar comparison of the sixth block of trials, as shown in Table II (a), reveals a significant difference between music and non music conditions with the t value and variance shown in Table II (d).

TABLE II (d)

MEANS AND VARIANCE OF 120 SUBJECTS ON THE SIXTH BLOCK OF TRIALS UNDER MUSIC AND NON MUSIC CONDITIONS.

T. Condition	N	Mean	Variance
Music	60	140.465	111.50
Non Music	60	117.75	69.92

t = 16.19
df = 118

After having observed the general pattern of behavior of all subjects, irrespective of sex difference and taking their performance collectively, under Music and Non Music conditions, the data was slightly re-organized to see (1) if females treated as a separate sub-group would approximate the same general pattern or deviate from this pattern, and (ii) if either of the two sex groups would exhibit different performance under the two treatment conditions.

TABLE III

OVERALL MEAN SCORES OF 30 MALE AND 30 FEMALE SUBJECTS UNDER EACH OF MUSIC AND NON MUSIC CONDITIONS ACROSS ALL THE SIX BLOCKS OF FIVE TRIALS EACH.

		Blocks of Trials						
T.	Cond	I	II	III	IV	V	VI	Means
Male	M.	138.06	159.53	177.17	165.00	129.80	138.16	151.29
	N.M.	138.58	160.70	176.50	165.74	128.17	119.10	148.04
								$\bar{X}$ = 149.67
Female	M.	138.93	159.83	179.23	166.07	131.07	142.77	152.98
	N.M.	139.43	160.70	177.67	166.73	127.57	119.10	148.55
								$\bar{X}$ = 150.76

DISCUSSION AND CONCLUSION

Careful examination of the results points to the fact that instrumental folk music acted in the predicted direction. The performance under music condition (both of males and females pooled together) was far better than the performance under the NM control condition of their counterparts.

The fatigue effect likely to have accumulated as a result of sustained attention and concentration, especially in a task of repetitive nature, was not allowed to reach the critical level of exhaustion where it would start interfering with performing the task at hand. Relaxing and nerve soothing effects of music seem to have contributed to the observed superior performance of groups under music condition, which in fact not only checked the fatigue and boredom effect but also tended to facilitate

performance as evidenced by Table I(a), sixth block of trials. The fatigue reducing property of music also has a boosting and energizing function and consequently is quite capable of enabling the subjects to provide a more rigorous and consistent response pattern. Moreover the overall pleasantness produced by the rhythmic effect of music seems to help achieve and maintain a steady level of work motivation and performance.

The gender-related difference as a function of music, i.e. the performance of both male and female subjects was compared under the two treatment conditions (M & NM). As evident from the results reported in Table III, the performance of male and female subjects (149.67 VS 150.76) respectively, is not significantly different. However female subjects, on the average, seem to have benefited slightly more from such a background effect than male subjects(Table III, sixth block of trials, 138.16 VS 142.77). This `masked' effect can be partly attributed to the fact that biologically females have relatively greater stamina than males which makes them more resistant and tolerant to such physical as well as physiological fatigue effects (Morgan,1979).On the basis of these observations it could be predicted that females are likely to be more facilitated by music than males,but the extent of such an effect can still be questioned in view of the results of the present study. A similar and concurrent difference between male and female subjects observed under non music conditions indicated that it is not the sex difference which really matters as much as the presence or absence of music.

Researches conducted in the area seem to suggest overwhelmingly that females tend to conform more readily and consistently with social norms than males. Allen(1985) concluded that a difference in the amount of conformity for males and females has been repeatedly demonstrated, with females generally being more conforming than males. This implies that females are more suggestible, less resistant and relatively more willing and uncritical in following instructions. Hence there is a possibility that this confirming tendency of females might have operated in favor of females performing the task better by following

the experimenter's instructions more seriously than their counterparts, i.e. the male subjects.

Nevertheless, the findings in this study, that instrumental soft music facilitates the execution of psychomotor activities, are quite in consonance with the observations reported by Kerr (1971), Smith (1964) and McGhee & Gardener (1947).

REFERENCES

Allen, V.L. in R.S. Feldman, Social Psychology : Theories, Research and Application, New York: McGraw Hill Book Co. 1985, pp 339-41.

Flack, A. in J.M.Brown, F.K.Berrier, D.L.Russell, Applied Psychology, New York: The Macmillan Co., 1966 pp. 273-79, 283-84, 299-402.

Kayani, N.Effect of soft music and noise on the acquisition of conditioned response (key-pecking) of pigeons. Master's Thesis submitted to the University of the Punjab, Lahore, Pakistan, 1981.

Kerr, W.A. in A.K. Korman, Industrial and Organizational Psychology, New Jersey: Prentice-Hall Inc., 1971, p.353.

Maccoly and Jacklin in R.S.Feldman, Social Psychology: Theories, Research and Application, New York: McGraw Hill Book Company, 1985.

McGhee, W. and Gardener, J.E. in J.L.Mursell, The Psychology of Music, New York: W.W.Norton, 1947. 303-05.

Morgan, C.T., King, R.A. and Robinson, N.M. Introduction to Psychology, 6th ed., New York: McGraw Hill Book Company, 1979, pp. 496, 534-40.

Motet, D. in R.J.Corsini (Ed). Encyclopedia of Psychology, Vol.2, New York: John Wiley & Sons, 1984. p. 413.

Mursell, J.L. The Psychology of Music, New York: W.W.Norton, 1937.

Newman, R.I., Hunt, D.L., and Rhodes, F. in A.K.Korman, Introduction to Organizational Psychology, New Jersey : Prentice-Hall Inc., 1971.

Roberts, J.W. in J.M.Brown, F.K.Basrin and D.L.Russel, Applied Psychology, New York: The Macmillan Co., 1966, pp. 273-79.

Smith, M.L. in N.R.Maier, Psychology in Industry, 3rd ed., Boston: Houghton Mifflin Company, 1964, pp. 503-08.

Uhsbrock, R.S. in A.K.Korman, Industrial and Organizational Psychology, New Jersey: Prentice-Hall Inc., 1971, pp. 335-56.

Wyatt, S. In N.R.Maier, Psychology in Industry, 3rd. ed., Boston: Houghton Mifflin Company, 1937, pp. 289-90.

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CASE HISTORY AND TREATMENT OF A CASE OF HYSTERICAL HALLUCINATIONS

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INTRODUCTION

Sajida (not her real name) was a twenty two year old housewife. She was a graduate from an English medium college and came from the upper-most socio-economic class of Karachi. She came to the author with the complaint of hallucinations.

CASE HISTORY

Sajida was the only daughter of a very well-to-do family, but her parents were divorced when Sajida was only six years old. Her mother left her husband and married someone else who was close to the family. As a result of this there was a lot of bitterness created in the family.

Sajida began to live with the father who did not get married as he loved his daughter immensely. Sajida was always treated like a queen in the house but she could not forget that her mother left her because of another man from whom she even had other children. She reported that she used to cry and weep in the bathroom and feel inferior, neglected and deprived as according to her even her own mother rejected her. She felt that if her own mother could be so careless then how could it be possible that any one else could care for her. The fact that her father gave her lot of attention could not compensate for the insecurity created by the rejection of the mother. Furthermore, her resentment towards the man who married her mother generalized into a distrust of all men.

Sajida had several servants and nannies to look after her but she could not get attached to any of them as mother surrogate. At the age of twenty one and a half she got married to another very well-to-do and closely related family member, a boy who was himself twenty four years old and helping his father in his business.

She began her new life very happily because her mother-in-law who was about forty-five years old and father-in-law who was about fifty years old were very affectionate towards her. This was also because her husband happened to be the only child of his parents. Her mother-in-law gave her so much attention that she actually began to feel that the vacuum she had been feeling in her life because of the absence of her mother was filled by the mother-in-law.

The mother-in-law was the sole company she had when her husband and father-in-law went to work but unfortunately only six months after the marriage, Sajida lost her mother-in-law who suffered a massive heart attack and was discovered dead in the early hours of the morning. This sudden shock came as a blow to Sajida and she became hysterical to such an extent that she could not sleep and developed multiple fears. After a few days the hysterical upheaval settled down but she developed the symptom of hallucinations, as she began to feel the presence of her mother-in-law all the time and even reported that the mother-in-law was taking tea with her as usual, selecting clothes for her, and was present at all times in the house instructing her how to conduct her daily routine. It is important to note that Sajida even reported that she not only heard the voice of the mother-in-law but literally saw her sitting with her, drinking tea and gossiping about various things. This hallucinatory behaviour went on for a·about a month and she was taken to various spiritual healers when it persisted. In the beginning it had been ignored as many elderly women in the family considered it as a normal phenomenon due to the belief that the spirit of the mother-in-law was present in the house even after forty days of her death and since Sajida was very attached to the mother-in-law it was only she who could see the spirit. When the symptom did not disappear even after six months of the death of the mother-in-law and the husband

gan to be disturbed by the abnormality and Sajida began to leave her om for the mother-in-law's room to sleep there that she was then brought the author for treatment. The author was at that time working with a ychiatrist who was aware of the efficacy of psychotherapy in such cases. e psychiatrist felt that Sajida had become psychotic. A psycho- ignostic evaluation was conducted and it came to light that she was ually suffering from hysterical hallucinations.

TREATMENT

Sajida was seen by the author in hour-long sessions, six days a ek. She was asked to indulge in free association and tell everything ich came to her mind. She preferred to lie down on the couch and talk l at times would sit up and explain the hallucinatory situations by acting the scenes with her mother-in-law. After a month she began to ve a very positive transference and ventilated the frustrations of her ·ly childhood and her hatred for her mother. She also blamed men for :ing away her loved ones from her. She felt resentful towards God for : death of her mother-in-law as well as towards all men whom she garded as authority figures.

It took the author about six months of intensive psycho-analytic :atment and another six months of working through in order to alleviate r symptom of hallucinations. Her treatment was further continued for other one year so that she could gain insight into her behaviour and to restall the possibility of relapse.

Sajida is happily married now, twenty four years since her treatment ded. She has two daughters and one son. One of her daughters is married d the other is a student of medicine. Her son is an engineer and working th his father in the family business.

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LOSS AND ANXIETY

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ABSTRACT

In the present research it was demonstrated that the loss of the mother in early childhood has its effects on the personality of an adult. It was hypothesized that the mean State anxiety of the LOSS GROUP, will be more as compared to the NO LOSS GROUP, under the stressful situation of loss of support, but the mean State anxiety of the two groups will not differ under the stressful situation of no loss of support. Furthermore it was hypothesized that the mean State anxiety of the LOSS GROUP will be more under the stressful situation of loss of support as compared to the stressful situation of no loss of support, but the mean State anxiety of the NO LOSS GROUP will not differ under the above mentioned situation.

In order to test these hypotheses, thirty male and thirty female students were tested with STAI (Spielberger, 1970), before and after they listened to the audio tape recording of a story of a stressful situation of loss of support and a story of a stressful situation of no loss of support.

The `t' test was applied in order to inquire into the statistical significance of the results. The results were found to be in the expected direction. Moreover the Trait anxiety of the Loss Group was also high as compared to the No Loss Group.

INTRODUCTION

During the twentieth century the model of personality development most favoured has regarded personality as progressing through a series of stages on a single track towards maturity. The various forms of disturbed personality are then attributed to an arrest, it is thought, is also of different levels of completion. Most often, it is supposed that it is only a partial arrest. In such an instance development is conceived as continuing in an apparently fairly satisfactory way except that, in conditions of stress, it is liable to breakdown, in which case the personality is thought to regress to whatever stage in development the partial arrest, or fixation, is deemed to have occurred at. In some of the best known theoretical systems based on that model, for example that of Abraham (1924), each form of personality disorder, neurosis and of psychosis is held to be traceable to some measure of fixation that has occurred at one or another particular stage of development.

Sigmund Freud (1926) in his very earliest formulation realised that problems of separation and loss in early childhood are central to psychopathology. "Missing someone who is loved and longed for" he affirms, "is the key to an understanding of anxiety." He further concludes that the fundamental determinant of automatic anxiety is the occurrence of a traumatic situation; and the essence of this is an experience of helplessness on the part of the ego in the face of an accumulation of excitation, whether of external or of internal origin, which cannot be dealt with.

"Anxiety 'as a signal' is the response of the ego to the threat of the occurrence of a traumatic situation. Such a threat constitutes a situation of danger. Internal dangers change with the period of life, but they have a common characteristic, namely that they involve separation from, or loss of, a loved object, or a loss of its love - a loss or separation which might in various ways lead to an accumulation of unsatisfied desires and so to a situation of helplessness" (Freud 1926).

Rosenblatt (1983) has singled out four Central Psychoanalytic Prepositions. One of them is "the phenomenon of delayed reaction". Rosenblatt states that, "It is now a well-established psychoanalytic fact,

based on thousands - or even millions- of clinical observations that the immediate overt reaction to an event in a person's life does not constitute the whole of the reaction. The impact of circumstance is often delayed. The duration of the delay may be long or short; or there may be a combination of short and long delays, or a slow emergence in many varied areas of the personality functioning".

In the light of the studies conducted by Robertson and Robertson (1971) and many others on record the following conclusions can be drawn: A separation from mother figure even in the absence of other factors leads to sadness, anger, and subsequent anxiety in children aged two years and over, and to comparable though less differentiated stress responses in younger ones. Separation from mother figure is in itself a key variable in determining a child's emotional state and behavior.

Moriarty (1983) stresses that children, unprepared to deal with loss suffer a traumatic experience which leaves its telltale marks, not only in terms of vulnerability to loss in the future, but manifestations of the scar in the various character functionings of the ego.

In Semrad's (1983) view, many clinical syndromes can be understood by tracing them back to traumatic experiences, loss, especially death, re-evoking the cyclical traumas related to the patients' repeated exposure to loss of object. A loss experience may touch off the effect of loss, to become pathogenic on account of the generation and suppression of a painful affect and bring about disturbances and disorganizations of ego function of clinical magnitude only if this early trauma occured in early childhood (before puberty).

The literature on the effect of early parent death has described a variety of later clinical and psychological sequelae. For example, schizophrenia (Wahl,1956), greater psychosexual conflict in adolescent females (Grayson, 1967), guilt (Semrad,. 1967), and loss in self-esteem and later depression (Dizmang, 1969) have been reported. Illegal offenses (Markusen and Fulton, 1971) and medical illnesses (Dietrich, 1981) have also been linked with early parent death.

Studies of the effects of maternal deprivation emphasize the significance of infancy and early childhood in personality formation and adjustment. They show that a lack of affection during the early years of life leaves an imprint on the child which is never completely erased. Although the process of deterioration can be aborted if a warm loving adult is provided as a subsitute mother, its effects cannot be entirely reversed. Children who have experienced maternal deprivation in infancy tend to display a relatively high incidence of nervous mannerisms, anxiety and insecurity in later life. (Pringle & Bossio 1960; Prugh et al, 1962).

In a study that utilized a psychiatric population, Blum and Rosenzweig (1944) reported that the experience of parent death occurred significantly more often in schizophrenics than in normals and found that the parent deaths tended to be maternal for the female schizophrenics and paternal for the males.

Barry (1949),who used a psychiatric population of 1683 state hospital patients, investigated the incidence of maternal bereavement and found a higher rate of maternal death prior to age 8, a decline in such deaths during early adolescence, and a rise in maternal death after adolescence. Paternal deaths did not correspond to the same trend pattern.

Lidz and Lidz (1949) reported that a group of 50 schizophrenic patients whose illnesses had begun before the age of 21 had a very high incidence of parental deprivation or separation before the 19th birthday, but much of the parental disturbance appeared to be related to the presence of familia mental illness.

Barry and Lindemann (1960) claimed that maternal death before the age of 5 was an important etiological factor in psychoneurosis, and that in females loss of the mother before the age of 2 was particularly associated with the later onset of neurotic illness. However, the composition of this particular patient series is unclear, since it is described vaguely as a group of 947 patients with psychoneurosis or psychosomatic disorder.

Earle and Earle (1961) compared 100 individuals in whom a period of separation from the mother had occured during childhood with the

matched group whose members had not experienced separation. Early maternal deprivation was found to be significantly related to the presence of pschopathology, but there was no convincing relationship with psychoneurosis. Bruhn and McCulloch (1962) show that suicidal, as compared with non-suicidal, psycho-neurotics were excessively liable to have suffered from parental deprivation.

In subsequent work, the severity of the depression has received particular attention. Beck et al. (1963) described a group of depressed patients in which those severely depressed had suffered more parental bereavement before the sixteenth birthday than those mildly depressed.

Hilgard and Newman (1963) found that shizophrenics showed no excess of parental deprivation before the age of 19, but did show a significant excess of mother loss. Forrest et al. (1965) found an excess of parent loss in depressive individuals. Munro (1966) found that "severe depressives are more liable, and moderately severe depressives less liable, to have lost a parent by death before their 16th birthday as compared with normal controls".

Gay and Tonge (1967) find that the excess of parent loss is more frequent in psychogenic than in endogenous depression, but they do not make a comparison with normal controls. In the diagnostic categories of neurosis, reactive depression and personality disorder, loss of mother was found more frequently in the first five years of life, while the loss of the father was found more frequently in the years 5-14.

Wilson, Alltop and Buffaloe (1967) analysed the M.M.P.I profiles of 92 consecutive depressed admission patients according to the presence or absence of parental bereavement in childhood. The parentally bereaved group showed higher scores in the psychotic tetrad. In the childhood bereaved group the mean scores on the basic scales of those who had lost their mother were uniformly (except for the Mf scale) and significantly higher than the mean scores for those who had lost their father.

Caplan and Douglas (1969) have linked parent loss with the following forms of pschopathology: adult depression, sociopathic

personality, schizophrenia, hysterical personality and unspecified psyehoneurosis.

Menes's (1973) findings supported the pshoanalytic proposition that the loss of a parent in childhood can lead to long-lasting pathological alterations in emotional moods.

Brown and Harris (1978), suggested that a past loss fue to death predisposes the individual to respond to a current loss as though it were another death with consequent unrelieved hopelessness, which leads to motor retardation and depression.

The effect of parent separation, if prior to a parent death experience, may act to predispose the individual to greater pathogenicity and lower the individual's separation tolerance for the subsequent parent loss (Bowlby, 1980). If, on the other hand, parent separation occurs after a parental bereavement, the separation may serve to exacerbate or compound the traumatic effects of the parental bereavement, particularly of mourning has not yet been completed. The is typically the case with childhood parent loss by death, as Wolfenstein (1965) has shown.

Dietrich (1984) investigated psychlogical effects that result from childhood parent loss by death. Subjects were normals (16 males and 16 females per group) divided into three groups: early bereaved (up to age 7), late bereaved (ages 12 to 18), and non bereaved. In 50 % of the bereaved individuals, two or more MMPI clinical scales were pathologically abnormal compared with 28% of controls. Significant parent loss by child's sex interaction effects were obtained on Psychopathic deviate. Masculinity Feminity, Psychasthenia and Schizophrenia scales. A significant effect was found for early parent separation on the schizophrenia scale.

Ahmad's unpublished book on ``Child Rearing Practices and Mental Health in Pakistan'' also emphasizes the significance of early childhood loss of the mother and its effects on the child's personality development.

Early childhood loss of mother, in the present study refers to experience of death of a mother only between the second and the sixth year of a child's life. It does not include those who had experienced death of a mother before the second and after the sixth year.

The purpose of the present study is to find out the importance of early childhood loss of mother because it is evident that it plays an important role in the development of pathological conditions. Moreover the amount of research that deals with non-psychiatric, non-patient populations is quite limited and need to be expanded (Berlinsky and Biller, 1982; Dietrich, 1983). Therefore our concern will be to conduct a research on normal sample to obtain information about the difference of anxiety level in adult life between subjects who suffered the loss of mothers in early childhood between the ages of two and the six, and subjects who did not face this loss in early childhood. It is also surmised that the subjects who suffered from the loss of mothers in early childhood will be more prone to anxiety when they will come across a similar situation in the life of some other person and will relive the same experience.

The following hypotheses are framed in the light of the research review:

Hypothesis No. 1:

"The mean State anxiety of the Loss Group will be more as compared to the mean State anxiety of the No Loss Group under the stressful situation of loss of support."

Hypothesis No. 2:

"The mean State of anxiety of the Loss Group and the mean State anxiety of the No Loss Group will not differ under the stressful situation of no loss of support."

Hypothesis No. 3:

"The mean State anxiety of the Loss Group will be more under the stressful situation of loss of support as compared to the stressful situation of no loss of support."

Hypothesis No. 4:

"The mean State anxiety of the No Loss Group will not differ under the stressful situation of loss support and under the stressful situation of no loss of support."

METHOD

Subjects:

Thirty male and thirty female graduate and undergraduate students between the ages of 20 and 26 years from the University of Karachi were subjects for the present study. They were selected to form two groups. The LOSS GROUP consisted of those subjects who had experienced loss of their mothers between the second and the sixth year of their lives; and the NO LOSS GROUP consisted of those who had not experienced the loss of their mother between the second and the sixth year of their lives.

Procedure:

The "Slosson Oral Reading Test" (SORT) (Slosson, 1963) was first administered to all selected subjects and only those were taken who successfully completed te sixth grade reading level. This procedure was adopted in order to be sure that all subjects understand the English language of the "State - Trait Anxiety Inventory". Then they were given a form to fill in the salient features of their life history. The entire procedure was divided into two halves. In the first part of the first half the State-Trait Anxiety Inventory was individually administered to the 15 subjects of the Loss Group and the 15 subjects of the No Loss Group. After that each of the thirty subjects was asked to listen the audio tape recording of the story of six minutes duration about the stressful situation of Loss of Support. After the story A - State Scale from the STAI was administered. After an interval of 20 minutes, the second part of the first half started where the same procedure was repeated except that this time

the story was of the stressful situation of No Loss of Support.

In the second half, the same procedure was repeated for the remaining 30 subjects except that the order of the stories and the number of the subjects of both sexes were reversed. This counter balancing of design was done in order to rule out the effect of one story on the other and to make equal representation of both sexes.

The differences between the mean increase in anxiety levels for both the groups (Loss and No Loss) under each of the two conditions (Stressful situations of Loss of Support and no loss of support) were tested by the `t' test in order to inquire into the statistical significance of the differences.

Operational Definitions:

a. THE LOSS GROUP is defined as that group which consists of those subjects who had experienced loss of their mothers only between the second and the sixth year of their lives. It does not include those who had experienced loss of their mothers before the second and after the sixth year.

b. THE NO LOSS GROUP is defined as that group which consists of those subjects who had not experienced loss of mothers between the second and the sixth year of their lives.

c. THE STORY OF THE STRESSFUL SITUATION OF LOSS OF SUPPORT is a story which was written and narrated by a Clinical Psychologist. This story was specially written for the purpose of the present study. The theme of the story related to the death of a mother.

d. THE STORY OF THE STRESSFUL SITUATION OF NO LOSS OF SUPPORT is a story which was written and narrated by a clinical psychologist specially for the present study. The subject matter of this story related to failure in an examination.

RESULTS

The results of the statistical analysis for the first hypothesis are shown in Table No. 1. The results indicate that the `t' is 7.80, df = 58, P<.001 level, which clearly shows that there is a significant difference between the two groups. The mean State anxiety of the subjects from the LOSS GROUP is significantly higher under the stressful situation of loss of support as compared to the mean State anxiety of the subjects from the NO LOSS GROUP. The mean State anxiety difference between the males of the LOSS GROUP and the NO LOSS GROUP under the stressful situation of loss of support is statistically significant ('t' = 5.7, df = 28, P <.001). THe mean State anxiety difference between the females of the LOSS GROUP and the NO LOSS GROUP under the stressful situation of loss of support is statistically significant ('t' = 4.77, df = 28, P<.001).

TABLE I

"THE EFFECT OF THE STRESSFUL SITUATION OF LOSS OF SUPPORT ON STATE ANXIETY OF THE LOSS GROUP AND THE NO LOSS GROUP."

LOSS GROUP	NO LOSS GROUP
nx = 30 $\bar{X}$ = 13.6 S^2p = 33.90 't' obs = 7.80	ny = 30 $\bar{Y}$ = 2.53 $S\bar{x}\text{-}\bar{y}$ = 1.42 Significant at 0.001 level

TABLE II

"THE EFFECT OF THE STRESSFUL SITUATION OF NOLOSS OF SUPPORT ON STATE ANXIETY OF THE LOSS GROUP AND THE NO LOSS GROUP."

LOSS GROUP	NO LOSS GROUP
nx = 30	ny = 30
$\bar{X}$ = 2.16	$\bar{Y}$ = 1.86
S^2p = 28.47	$S\bar{x}\text{-}\bar{y}$ = 1.30
't' obs = 0.23	Not Significant

The result of the statistical analysis for the second hypothesis are shown in Table NO. 2. The results indicate that the 't' is 0.23, df = 58, P > .05 level, which clearly shows that there is no significant difference between the two groups. The mean State anxiety of the LOSS GROUP and the mean State anxiety of the NO LOSS GROUP do no differ under the stressful situation of not loss of support. The mean State anxiety difference between the males of the LOSS GROUP and the NO LOSS GROUP, under the stressful situation of no loss of support is statistically not significant ('t' = 0.43, df = 28, p> .05). The mean State anxiety difference between the females of the LOSS GROUP and the NO LOSS GROUP under the stressful situation of no loss of support is statistically not significant ('t' = -0.09, df = 28, P > .05).

The results of the statistical analysis for the third hypothesis are shown in Table No. 3. The results indicate that the `t' is 6.53, df = 29, P< .001 level, which clearly showns that there is a significant difference between the two conditions. The mean State anxiety of the LOSS GROUP is significantly more under the stressful situation of loss of support as compared to the stressful situation of no loss of support. The mean State anxiety of the males of the LOSS GROUP differ significantly under the

stressful situation of loss of support and under the stressful situation of no loss of support. ('t' = 6.59, df = 14, p < .001). The mean State anxiety of the females of the LOSS GROUP, differ significantly under the stressful situation of loss of support and under the stressful sistuation of no loss of support. ('t' = 3.57, df = 14, P < .01).

TABLE III

"THE EFFECT OF THE STRESSFUL SITUATION OF LOSS OF SUPPORT AND THE STRESSFUL SITUATION OF NO LOSS OF SUPPORT ON STATE ANXIETY OF THE LOSS GROUP."

$N = 30$ $\bar{D} = 11.43$ $S^2D = 91.98$ $SD = 9.59$ $S\bar{D} = 1.75$ $t = 6.53$ Significant at 0.001 level

TABLE IV

"THE EFFECT OF THE STRESSFUL SITUATION OF LOSS OF SUPPORT AND THE STRESSFUL SITUATION OF NO LOSS OF SUPPORT ON STATE ANXIETY OF THE NO LOSS GROUP."

$N = 30$ $\bar{D} = 0.66$ $S^2D = 11.40$ $S\bar{D} = 3.37$ $SD = 0.62$ $t = 1.06$ Not Significant

The results of the statistical analysis of the fourth hypothesis are shown in Table No. 4. The results indicate that the `t' is 1.06, df = 29, p > .05 level, which clearly shows that there is no significant difference between the two conditions. The mean State anxiety of the NO LOSS GROUP do not differ under the stressful situation of loss of support and under the stressful situation of no loss of support. The mean State anxiety of the males of the NO LOSS GROUP do not differ significantly under the stressful situation of loss of support and under the stressful situation of no loss of support ('t' = 0.22, df = 14, P>.05). The mean State anxiety of the females of the NO LOSS GROUP do not differ significantly under the Stressful situation of loss of support ('t' = 1.10, df = 14, P>.05) and under the stressful situation of no loss of support.

DISCUSSION

It is an established fact that the loss of the mother in early years can cause distress in a young child which is expressed in various ways of mourning as a sign of protest. This loss can have long-lasting impacts on the personality to the extent that even in adult life if a person passes through any experience of loss then the painful memories of the loss of the mother seem as fresh as if they had happened recently. Presently we will devote ourselves to the discussion of the hypotheses in the light of the results obtained in this research.

Hypothesis No. 1 states: "The mean State anxiety of the LOSS GROUP will be more as compared to the mean State anxiety of the NO LOSS GROUP under the stressful situation of loss of support."

This hypothesis is supported by the data and is significant at P < .001 level. According to Table No. I, it is quite clear that under the stressful situation of loss of support the mean increase in State anxiety of the LOSS GROUP is 13.6, whereas that of the NO LOSS GROUP is 2.53. Hence it is clear that when the subjects who had experienced loss of their mothers in early childhood, are exposed to a similar situation in the life of someone else then for certain time period their levels of

anxiety become high. It is therefore expected that whenever they will pass through any traumatic experience of loss in thier adult life, they might become disturbed to the extent that they may even require professional assistance, but those who had not experienced loss of their mothers in early childhod may not react to losses in adult life with the same intensity.

The present finding of a marked reaction to loss among such people who had experienced loss of their mothers in early childhood supports the psychoanalytic proposition that "the immediate overt reaction to an event in a person's life does not constitute the whole of the reaction. The impact of circumstances is often delayed" (Rosenblatt, 1983). Thus the vulnerability to anxiety in adults can be explained as the delayed effect of early childhood loss of the mother. This information is also important in making the diagnosis of patients because if a person who had not experienced the loss of the mother in early childhood shows more anxiety or stress under the stressful situation of loss of support in adult life, then the treatment may be quite different from the line of treatment of pateints who suffers from similar symptoms but had experienced loss of their mothers in early childhood.

When the results of both the groups are calculated separately for males and females, it is clearly shown that the result is significant for both the sexes. Under the stressful situation of loss of support the mean increase in State anxiety of the males of the LOSS GROUP is 14.8 and for the males of the NO LOSS GROUP it is 2.2. Similarly for the females of the LOSS GROUP it is 12.4 and for the females of the NO LOSS GROUP it is 2.86. The difference in the mean increase in state anxiety between males and females in however statiscally insignificant.

Hypothesis No. 2 states: "The mean State anxiety of the LOSS GROUP and the mean State anxiety of the NO LOSS GROUP will not differ under the stressful situation of no loss of support."

This hypothesis is supported by the data and the difference between

the two groups is not significant. According to Table No. II, it is quite clear that the mean increases in the State anxiety of the LOSS GROUP and the NO LOSS GROUP do not differ under the stressful situation of no loss of support, although these two groups differed under the stressful situation of loss of support (Table I).

The mean increase in State anxiety of the LOSS GROUP under the stressful situation of no loss of support is 2.16, while that of the NO LOSS GROUP is 1.86. This non significant incrase in the level of State anxiety further exphasizes the importance of the effects of early traumatic experience on later life. It appears that both groups are able to handle other painful incidents and stressors without becoming highly apprehensive and tense. The results suggest that individuals who had suffered the trauma of the loss of their mothers in early childhood are affected specifically by situations of loss, and are able to adjust better to other stressful conditions. This also indicates that the diagnosis and the treatment of persons who had lost their mothers very early in their lives should take this fact into consideration.

Hypothesis No. 3 states ``The mean State anxiety of the LOSS GROUP will be more under the stressful situation of loss of support as compared to the stressful situation of no loss of support.

This hypothesis is supported by the data and is significant at $P < .001$ level. According to table No. III, it is quite cleary that for the LOSS GROUP, the mean increase in the State anxiety under the stressful situation of loss of support is 13.6 and under stressful situation of no loss of support it is 2.16. This indicates that the state anxiety of those who had experienced loss of their mothers in early childhood is significatly more under the stressful situation of loss of support as compared to the stressful situation of no loss of support. It has already been noted that the early childhood loss of the mother is a painful event to such an extent that as a child, though he/she protests when his/her mother is no longer available, but still his/her emotions of that event are

repressed to such an extent, that even after becoming adult, when he/she passes through any other similar event in his/her life or life of some significant person, or even he/she watches on television, or hears the story of similar situation he/she relives the traumatic event of his/her life. His/her repressed emotions becomes conscious, and he/she recalls the pass event of his/her life. At that state their emotions are such as if they are experiencing the loss at that particular moment. Naturally under such situation when their State anxiety was measured it was signifcantly high as compared to the stressful situation where there was no loss of support.

Hypothesis No. 4 states: "The mean State anxiety of the NO LOSS GROUP will not differ under the stressful situation of loss of support and under the stressful situation of no loss of support".

This hypothesis is supported by the data and the difference between the two conditions is not significant. According to Table No. IV, the mean increase in State anxiety of the NO LOSS GROUP under the stressful situation of loss os support is 2.53 and under the stressful situation of no loss of support it is 1.86. This indicates that for those who had not experienced loss of their mothers in early childhood there is no significant difference in the level of State anxiety between the stressful situation of loss of support and the stressful situation of no loss of support.

This lack of difference between the two situations might be due the fact that the subjects of the NO LOSS GROUP had not passed through traumatic experience of loss of mothers in early childhood. It can be a possibility that they had gone through other painful experiences in early childhood, but it appears that the death of the mother even in the presence of other variables is an important factor in the personality development, while other experiences though important are relatively less painful. The experience and feelings of the death of the mother in early childhood is missing and the repression of emotions of the particular event is not there for the subjects of the NO LOSS GROUP. Under such situation when they hear any story, for example, story of the death of the mother in early childhood or if they watch such a play on television or they hear story of failure in examination then they do becmoe anxious but the increase in their level of anxiety is about the

same in all stressful situations.

Additional Variable:

During the collection of data the variable of trait anxeity of the sample studied was also found to be important as it seemed to play a vital role in the daily functioning of thos who had experienced loss of thier mother in early childhood. The relevant data for the loss and NO LOSS Groups was calculated and treated statustically.

TABLE V

"DIFFERENCE IN THE LEVEL OF TRAIT ANXIETY BETWEEN THE LOSS GROUP AND THE NO LOSS GROUP."

LOSS GROUP	NO LOSS GROUP
$\underline{n}x = 30$ $\bar{X} = 53.56$ $S^2p = 60.68$ 't' obs = 6.17	$\underline{n}y = 30$ $\bar{Y} = 4183$ $S\bar{x}\text{-}\bar{y} = 1.90$ Significant at 0.001 level

The results of the statistical analysis are shown in the Table NO. V. The results indicate that the 't' is 6.17, $P < .001$ level, which clearyly shows that there is a significant difference in the level of trait anxiety between the LOSS GROUP and the NO LOSS GROUP. The mean trait anxiety of the subjects who had experienced loss of their mothers in early childhood is 53.56, whereas that of those who had not experienced loss of theis mothers in early childhood is 41.83. The result is significant for both the sexes. For the males 't' is 4.90, $P < .001$ level and for the females 't' is 3.44, $P < .01$ level.

This difference in the levels of trait anxiety clearly indicates that the mother plays an important role in the development of the personality.

Presence of mother in early childhood helps children to satisfy important psychological needs. However the loss of the mother is evidently responsible for producing an enviroment in which the child's needs for security and belongingness are not adequately fulfilled which in turn contribute to the development of anxious personality traits. Thus when comparison was made between the trait anxiety of those who had experienced loss of their mothers in early childhood and those who had not experienced such loss, the results were in the expected direction and the former group appeared to be significantly more anxious as compared to the latter group.

REFERENCES

Abraham, K. (1924) A short Study of the Development of the Libido. In Abraham, Selected Papers on Psychoanalysis. London: Hogarth.

Ahmad, F.Z. Child Rearing Practices and Mental Health in Pakistan (in Press). Institute of Clinical Psychology, University of Karachi.

Barry, H. (1949) Significance of maternal bereavement before age of eight in psychiatric patients. Archives of Neurology and Psychiatry. 62,630-637

Barry, H., Jr. and Lindemann, E. (1960) Critical ages for maternal bereavement in psychoneuroses. Psychosomatic Medicine, 22, 166.

Beck, A.T., Sethi, B.B., and Tuthill, R.W. (1963) Childhood bereavement and adult depression. Archives of General Psychiatry, 9, 295-302.

Berlinsky, E.B. and Biller, H.B. (1982) Parental Death and Psychological Development. Lexington, MA: Lexington.

Blum, G. and Rosenzweig, S. (1944) The incidence of sibling and parental deaths in the anamneses of female schizophrenics.

Journal of General Psychology, 31, 3-13.

Bowlby, J. (1980), In D.R. Dietrich, Psychological health of young adults who experienced early parent death: MMPI Trends. Journal of Clinical Psychology, July, 1984, 40(4), 901-907.

Brown, G. and Harris, T. (1978) The Social Origins of Depression. A Study of Psychiatric Disorder in Women. London: Tavistock.

Bruhn, J.G. and McCulloch, J.W. (1962) Parental deprivation among attempted suicides. British Journal of Psychiatry and Social Work, 6,186.

Caplan, M. and Douglas, V. (1969) Incidence of parental loss in children with depressed mood. Journal of Child Psychology and Psychiatry, 10, 225,232.

Dietrich, D.R. (1981) Psychopathologic and Medical Effects of Early Parent Death. Paper presented at the eighty-ninth annual convention of the American Psychological Association, Los Angeles.

Dietrich, D.R. (1983) Empirical Studies of the Psychological Effects of Early Parent Loss:Implications for Psychotherapy. Paper Presented at the Department of Psychiatry, Camelback Phoenix Hospital, Phoenix.

Dietrich, D.R. (1984) Psychological health of young adults who experienced early parent death: MMPI trends. Journal of Clinical Psychology, 40(4), 901-908.

Dizmang, L. (1969) Loss, Bereavement, and Depression in Childhood. In E. Shneidman and M. Ortega (ed.), Aspects of Depression, Boston: Little Brown.

Earle, A.M., and Earle, B.V. (1961) Early maternal deprivation and later psychiatric illness. American Journal of Orthopsychiatry, 31,181.

Forrest, A.D., Fraser, R.H., and Priest, R.G. (1965) Enviromental factors in depressive illness. British Journal of Psychiatry, 111,243.

Freud, S. (1926) Inhibition, Symptoms and Anxiety. SE 20: 87-172.

Gay, M.J. and Tonge, W.L. (1967) The late effects of loss of parents in childhood. British Journal of Psychiatry, 113, 753-759.

Grayson, H.T. (1967) Psychosexual conflict in adolescent girls who experienced early parental loss by death (Doctoral Dissertation, Boston University, Dissertation Abstracts International, 28, 2138 B.

Hilgard, J.R. and Newman, M.F. (1963) Parental loss by death in childhood as an etiological factor among schizophrenic and alcoholic patients compared with a non-patient community sample. Journal of Nervous and Mental Disease, 137, 14.

Lidz, R.W. and Lidz, T. (1949) The family environment of schizophrenic patients. American Journal of Psychology, 106, 91.

Markusen, E. and Fulton, R. (1971) Childhood bereavement and behaviour disorders: A critical review. Omega, 2, 107-117.

Menes, M.J. (1973) The effects of aggressive stimulation upon young adults who have experienced the death of a parent during childhood and adolescence. New York University.

Moriarty, D.M. (1983) The Loss of Loved Ones. U.S.A. : Warren H. Green, Inc.

Munro, A. (1966) Parental deprivation in depressive patients. British Journal of Psychiatry, 112, 443-457.

Pringle, M.L.K. and Bossio, V. (1960) Early, prolonged separation and emotional maladjustment. Journal of Child Psychology and Psychiatry, 1, 37-48.

Prugh, D.G., et al. (1962) Deprivation of Maternal Care - A Reassessment of its Effects. World Health Organization, Public Health paper No. 14, International Documents Service, Columbia.

Robertson, J. and Robertson J. (1971) Young children in brief separation: A Fresh Look. Psychoanalytic Study of the Child, 26, 264-315.

Rosenblatt, B. (1983) Reaction of children to the Death of Loved Ones: Some Notes Based on Psychoanalytic Theory. In D.M. Moriarty (ed.) The Loss of Loved Ones, U.S.A. : Warren H. Green, Inc.

Semrad, E. (1967) The Organization of Ego defenses and Object Loss. In D.M. Moriarty (ed.), The Loss of Love Ones. Springfield, IL : Charles C. Thomas.

Semrad, E. (1983). The Organization of Ego Defenses and Object loss. In D.M Moriarty (ed.) The Loss of Loved Ones. U.S.A. Warren H. Green, Inc.

Slosson, R.L. (1963) Slosson Oral Reading Test (SORT). New York :Slosson Educational Publications, Inc.

Spielberger, C.D., Gorsuch, R.L., and Lushene, R.E. (1970) State Trait Anxiety Inventory Manual. Palo Alto, California: Consulting Psychologist Press.

Wahl, C.W. (1956) Some antecedent factors in the family histories of 588 male schizophrenics of the United States Navy. American Journal of Psychiatry. 113, 201-210.

Wilson, I.C., Alltop, L.B., and Buffaloe, W.J. (1967) Parental bereavement in childhood: M.M.P.I Profile in a depressed population. British Journal of Psychiatry, 113, 761-764.

Wolfenstein, M. (1965) Death of a Parent and Death of a President. In M. Wolfenstein and G. Kliman (eds.) Children and the Death of a President. New York: Doubleday.

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TRANSLATION AND ADAPTATION OF CHILDREN'S PERSONALITY QUESTIONNAIRE (CPQ) OF THE IPAT SERIES INTO URDU AND DEVELOPMENT OF LOCAL NORMS FOR PAKISTANI POPULATION

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ABSTRACT

Serious handicaps experienced in obtaining reliable assessment of personality of Pakistani children using foreign- made tests necessitated indigenization of Children's Personality Questionnaire (CPQ) of IPAT series, for the same to be used more meaningfully with Pakistani children. Separate norms based on a sample comprising 292 boys and 281 girls, across 14 bipolar dimensions of personality, were developed.

INTRODUCTION

A preliminary survey revealed that not a single personality test in our native language i.e Urdu, standardized on Pakistani population was available to be used reliably with Pakistani children, with the result that serious handicap is experienced when one needs to know, apart from other aspects, personality composition of the child under observation.

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A preliminary survey revealed that not a single personality test in our native language i.e Urdu, standardized on Pakistani population was available to be used reliably with Pakistani children, with the result that serious handicap is experienced when one needs to know, apart from other aspects, personality composition of the child under observation.

Personality appraisal accomplished through non-objective means, on the one hand, do not provide a complete and reliable picture of the child

being assessed (a universally recognized limitation of the Rating/ Observation technique) and secondly is the fact that these may not adequately reflect actual feelings and reactions which a child might like to express, if not in his own words, at least in response to specifically structured question/s. In fact a Personality Inventory or a Questionnaire carefully structured, especially keeping in view the individual's world of experiences and expected responses and reactions indoctrinated in him as a result of his socio-religious orientation, and consequently determined by cultural expectations, would be highly desirable. This would be particularly important in the context of the personality assessment of children.

For a multitude of reasons a child may not be able to reveal himself precisely and accurately even if asked to describe himself or describe his likes and dislikes. He may unintentionally withhold some key information not because of a threat of disapproval but due to a lack of awareness or inability to adequately verbalize his ideas. He in fact needs some specific question/s, a real stimulus, to come up with an appropriate answer or response. This objective can be best achieved by having an Inventory or a Questionnaire prepared in the language in which .pa he readily comprehends the question, the language in which he normally, involuntarily and unconsciously thinks and answers questions, and through questions which directly relate to his world of experiences and reflect his cultural orientation.

The above consideration, in the first place, necessitated the translation into our native language and the cultural adaptation of some such Test. Secondly, local norms should be developed for a meaningful portrayal of personality of a Pakistani child. This obviously implies that we, inevitably, need some indigenous or an indigenized tool which can provide a reliable basis for predicting a child's behavior including success in his domestic, social and professional life. Information yielded by the personality test can also be used profitably in educational and vocational counseling and in diagnoses of clinical nature. It can significantly contribute in measuring the relationship between personality

composition and physical illness (Stewart, 1965). It may also provide a sound basis for the purpose of psychotherapy, to know something more about the patient's resources of personality, his handling of conflicts, his frustration tolerance level, his superego strength, etc. (Cattell, 1957).

The convenient and adequate measure of personality obtained by using CPQ has long been recognized by psychologists and educators in their own spheres, i.e. clinics for the treatment of emotional and conduct disorders and for educational and vocational counseling and guidance in schools. In schools particularly, the objective analysis of a child's individual personality furnished by the test can supplement other information which is available through his academic achievement record. The CPQ yields a general assessment of personality by simultaneously measuring 14 distinct dimensions or traits of personality which have been found by psychologists in studying the total personality (Cattell, 1965; 1957). These 14 scores taken individually and in combination, can provide the user with sound bases for predictions of school-related criteria, such as academic achievement, especially underachievement, the tendency toward delinquency, and a timely possible need for clinical help to avoid, as far as possible, excessive emotional disturbance or minimize it. A teacher adequately trained in the interpretation of psychological tests and equipped with test information can safely use CPQ to broaden his understanding of personality development in each child with reference to his school adjustment, as well as his emotional and intellectual growth.

The CPQ provides independent measures on 14 designated bipolar personality traits, each represented by alphabets to replace their connotative technical names for the user's convenience. These measures can safely be treated as unitary traits as duly established by factor-analytic research and as such they tend to reflect psychologically meaningful entities across various life situations (Cattell & Coan, 1957; Cattell & Gruen, 1954; Cattell & Howarth, 1962). Each dimension is identified as having two poles or extremes with positive and negative attributes of the designated personality trait for characterizing the individual. The description in the left and right columns .pa below, though opposed to

each other and accordingly providing low and high scores, should not lead us to assume that high scores are necessarily ``good'' and low scores ``bad''. In personality, each type of temperament usually has both good and bad points.

The following descriptions summarize much of the interpretation currently applied to the various scales:

Low Score Description	High Score Description
Factor A	
Reserved, Detached, Critical, Cool	Warm-hearted, Outgoing.
Factor B	
Less intelligent, Concrete thinking, Lower scholastic Mental Capacity.	More intelligent, Abstract thinking, Bright.
Factor C	
Affected by Feelings, Emotionally less stable.	Emotionally stable, Calm, Faces reality.
Factor D	
Phlegmatic, Deliberate, Inactive.	Excitable, Impatient, Demanding, Over active.
Factor E	
Obedient, Mild, Submissive.	Assertive, Independent, Aggressive, Stubborn.
Factor F	
Sober, Prudent, Serious, Taciturn	Happy-go-Lucky, Impulsive, Lively, Gay.
Factor G	
Expedient, Evades rules, Undependable.	Conscientious, Persevering, Rule-bound.
Factor H	
Shy, Restrained, Diffident, Timid.	Venturesome, Sociallybold, Uninhibited, Spontaneous.

Factor I	
Tough-minded, Self-reliant, Realistic.	Tender-minded, Dependent, Overprotected, Sensitive.
Factor J	
Vigorous, Zestful, Goes Readily with Group.	Circumspect, Obstructive, Individualistic.
Factor N	
Forthright, Natural, Artless, Sentimental.	Shrewd, Calculating, Astute.
Factor O	
Self-assured, Placid, Secure, Serene.	Apprehensive, Worrying, Depressive.
Factor Q3	
Casual, Careless of Social Rules, Untidy, Follows own Urges.	Controlled, Socially precise, Self-disciplined, High self-Concept Control.
Factor Q4	
Relaxed, Tranquil, Torpid.	Tense, Driven, Over-wrought, Fretful.

The CPQ (each of the two parallel Forms, "A" and "B") contains 140 items, divided into two equal parts of 70 each. Items included in the test were deliberately constructed to be as "neutral" as possible with regard to social desirability. Moreover items have been balanced so that an equal number of agreement and disagreement responses contribute to the scale score. In this way, effects of distortion brought on either by deliberate faking or by subconscious motivational forces, have been adequately controlled if not completely eliminated.

The two alternate Forms, Form "A" and Form "B", have separately been well standardized on a sample of 124 boys and girls as per reported Coefficients of Reliability (Table I) and that of Validity (Table II), distinctly across 14 dimensions.

TABLE I

COEFFICIENT OF RELIABILITY (TEST-RETEST)

	FACTORS													
	A	B	C	D	E	F	G	H	I	J	N	O	Q3	Q4
Form A	.59	.72	.47	.67	.67	.70	.66	.58	.72	.59	.70	.60	.61	.56
Form B	.42	.71	.57	.58	.56	.46	.54	.48	.48	.48	.50	.61	.56	.49

TABLE II

CPQ DIRECT VALIDITY COEFFICIENTS

	FACTORS													
	A	B	C	D	E	F	G	H	I	J	N	O	Q3	Q4
Form A	.55	.82	.73	.83	.33	.91	.72	.64	.69	.65	.52	.68	.79	.76
Form B	.79	.78	.51	.71	.57	.57	.45	.75	.75	.29	.64	.61	.87	.69

METHOD

The general research design, in the first place, called for translation of CPQ into Urdu with necessary cultural adaptation of one of the two alternate forms to be used as a tool for data collection. The data thus collected was statistically treated to yield separate norms for girls and boys.

Sample: The final test sample used for statistical analysis consisted of 573 school children including 292 boys and 281 girls as against a target sample of 600 subjects with 50% cases representing each sex. The sample was drawn randomly from a comprehensive list of registered and recognized schools of Lahore metropolitan area.

Procedure: The test, CPQ, consisting 140 items, each with two to three options, was adapted with reference to noticed cultural discrepancies from English into Urdu. While indigenizing the test content special attention was paid to language difficulty and general level of comprehension of Pakistani standard school children falling within 11-15 years age bracket. It is worth mentioning here that the actual age range sample on which the CPQ was standardized in America was 8 to 12 years. But a pilot study conducted using the Urdu Adaptation, named as "JAIZA : SHAKHSIAT ITFAAL ", on a tryout sample of 30 participants (15 boys and 15 girls) revealed that majority of Pakistani eight to ten year olds were almost at a loss to comprehend the test content. This problem, therefore, was resolved by increasing the age range of the sample from 8 - 12 to 11 - 15 years.

Each of the 140 items included in CPQ Form A was critically examined and edited by a team of three researches prior to its being sent for verification by nominated experts. The designated experts were nominated on the basis of their reputation as eminent scholars (professors) having good command over both English and Urdu and some knowledge of psychology. The were sent the photocopies of the Urdu translations and were requested to translate them back into English. Their English translations were then compared with each other and with the original English version of the questionnaire. Some disagreement on 5 items was noticed. Those items were reconsidered and necessary adjustments .PA were made in the final form with concurrent approval of the experts before it was commissioned as ready for use. Multiple reusable (calligraphed) copies of Booklets with separate Answer Sheets were prepared for data collection.

The answer sheets and predetermined scoring keys for the Urdu version were developed on the same principles as for the original English form with some adjustment in the basic format. English alphabets as codes representing different factors (personality traits) were substituted by Urdu alphabets for convenience of the examinees and the users.

The test was administered to boys and girls in groups of ten to twenty

representing different age groups, i.e. 11 to 15 years. This was followed by scoring individual answer sheets with the help of the predetermined scoring key, and working out each child's score on a bipolar scale.

In the assessment of personality particularly, any set of scores across various dimensions of personality recorded by the test could be considered as providing a valid picture, of the assessee in its own way. This picture, however, is expected to vary from individual to individual, therefore, no valid conclusion can be drawn unless standard scale/s to compare with is/ are already available. The assessing psychologist, in view of his professional and ethical responsibilities, will be constrained to know the extent to which the recordings of his assessee deviate or approximate the typical profile obtained on the basis of a much larger representative sample of population he belongs to. It is, therefore, through such comparisons alone that the assessing psychologist can describe the weak and strong personality traits of his assessee. This necessitated the computation of Norms for providing reference scale/s.

As a first step, standard deviations and mean scores for each of 14 bipolar dimensions were calculated separately for both boys and girls. This was followed by converting the raw scores into Centile ranks and presenting these in tabulated form separately for boys and girls for ready reference (Tables : III, IV, V, VI). The following formula (McCall, 1975) was used for the calculation of centile ranks:

$$P = \frac{nw\,(X - L) + i.nb}{Ni}$$

where

P = the desired percentile rank,
X = the score value corresponding to the desired percentile rank
L = the real lower limit of X nw = the number of cases having scores lower that X
n = number of scores within the interval N = the total number of cases in the distribution
i = the size of the score interval.

RESULTS

TABLE III
Means and Standard Deviations,
Boys, N = 292

Factors	$\overline{X}$	S.D.
A/الف	5.793	1.881
B/ ب	4.501	1.153
C/ ج	5.678	1.685
D/ د	3.755	1.416
E/ ر	3.678	1.347
F/س	4.839	1.404
G/ص	5.785	1.575
H/ط	5.650	1.795
I/ ع	5.335	1.658
J/ف	3.667	1.387
N/ق	4.483	1.578
O/ک	3.556	1.389
Q3/3 م	6.875	1.117
Q4/4 م	2.832	1.116

TABLE IV
Means and Standard Deviations,
Girls, N= 281

Factors	$\overline{X}$	S.D.
A/الف	4.479	1.341
B/ ب	6.096	1.366
C/ ج	4.352	1.612
D/ د	4.335	1.308
E/ ر	4.361	1.549
F/س	3.801	1.193
G/ص	4.950	1.431
H/ط	3.876	1.370
I/ ع	6.345	1.483
J/ف	4.713	1.022
N/ق	4.445	1.279
O/ک	5.573	1.209
Q3/3 م	6.269	1.761
Q4/4 م	4.960	1.337

Tables III and IV provide central values and range of dispersion of the Urdu adaptation of CPQ across 14 dimensions of personality for boys and girls respectively. Factors represented by English alphabets in original CPQ have duly been substituted by their Urdu equivalents.

TABLE V

NORMS IN CENTILE RANKS, N = 292 (BOYS)

Factors		RAW SCORES									
		1	2	3	4	5	6	7	8	9	10
A/	الف	-	1	5	13	30	55	79	93	99	-
B/	ب	2	10	25	44	62	80	93	98	99	-
C/	ج	-	4	14	28	52	76	91	99	-	-
D/	د	-	10	33	62	84	94	98	99	-	-
E/	ر	2	9	30	60	83	94	98	-	-	-
F/	س	-	2	12	30	52	75	63	99	-	-
G/	ص	-	1	7	16	30	52	74	90	98	-
H/	ط	-	2	7	17	32	54	74	89	98	-
I/	ع	1	5	11	25	43	64	83	95	99	-
J/	ف	2	12	36	62	82	94	99	-	-	-
N/	ق	1	7	24	47	70	87	96	99	-	-
O/	ک	3	15	38	64	84	95	99	-	-	-
Q3/3	م	-	-	1	2	9	27	53	79	96	-
Q4/4	م	6	23	50	77	91	97	99	-	-	-

The extreme left hand column, labled "Factors", has all the 14 Factors/ Dimensions listed. In front of each factor, Centile ranks are recorded corresponding to the raw scores on the top (01 -10). Pick out the value of the Subject's raw score and read off in hte same row the Centile rank in front of the relevant factor, e.g., a raw of 7 in factor "O"/ " " reads a centile rank of 89 (Girls).

TABLE VI

NORMS IN CENTILE RANKS, N = 292 (GIRLS)

Factors		RAW SCORES									
		1	2	3	4	5	6	7	8	9	10
A/	الف	-	-	12	38	65	87	97	99	-	-
B/	ب	-	-	1	6	22	48	73	90	97	99
C/	ج	-	2	15	43	70	87	96	98	99	-
D/	د	1	2	13	37	64	83	94	99	-	-
E/	ر	2	13	29	49	66	81	93	97	99	-
F/	س	1	2	15	41	65	82	92	98	99	-
G/	ص	1	2	10	25	45	70	90	98	99	-
H/	ط	4	15	35	56	72	82	90	96	99	-
I/	ع	2	6	11	20	37	62	85	97	99	-
J/	ف	1	2	14	43	73	92	98	99	-	-
N/	ق	-	2	16	42	68	85	96	99	-	-
O/	ک	-	1	6	22	44	69	89	97	99	-
Q3/3	م	1	2	9	22	40	64	84	95	99	-
Q4/4	م	1	2	11	32	59	81	92	97	99	-

DISCUSSION AND CONCLUSION

As mentioned earlier, the original CPQ developed and standardized on an American population of children did not provide a true picture when the same was used with Pakistani children. The children brought up in Pakistan are exposed to a social climate which is dissimilar to the one which prevails in Europe or United States of America.

In many respects Pakistani society, by and large and comparatively, is still a conservative society in which social and moral values are regulated by religious indoctrination; on the other hand there is hardly any stress on emotional grooming of children in our culture. Any independence exercised in choice of school subjects and adoption of careers by our children is not encouraged; parental control tends to inhibit free expression of these children as to what actually the aspire for, think, feel and would like to do if given the option. These few glimpses are intended to reflect the cultural discrepancies and their differential impact on the development of personality. This was further aggravated by requiring the Pakistani children, unnecessarily, to comprehend and answer a long list of questions in a language which is not their mother tongue and is taught only as a second language.

The above considerations necessitated the indigenization of CPQ to yield more meaningful results by allowing Pakistani children to adequately and conveniently conceptualize the exact context of the questions and answers in the light of their experiences and orientation. Advertantly local Norms, separately for Boys and Girls, across all the 14 traits have been developed and reported in `Results' for ready reference.

The CPQ is one of the four personality questionnaires developed by the Institute For Personality and Ability Testing (IPAT), U.S.A. for different age groups. It parallels the personality concepts used in the 16 Personality Factors Questionnaire (16 PF), a multidimensional measure covering sixteen distinct primary personality factors or traits.

Originally the CPQ covers the age range of 8 to 12. But while indigenizing the test for Pakistani children this age range was shifted upwards to include falling in the age range 11 to 15 years. This was considered most desirable in view of the fact that children of 8 to 12 years in our setup, for a multitude of factors, normally do not have as rich an exposure and awareness as the children brought up in developed countries. A pilot study also revealed that children of 8 to 10 years were not able to comprehend the test content properly, therefore, in consultation with

a visiting foreign expert it was resolved to focus on children of 11 to 15 years instead of 8 to 12 years.

REFERENCES

Cattell, R. B. (1957) Personality and Motivation Structure and Measurement. New York: World Book.

Cattell, R. B. (1965) The Scientific Analysis of Personality. Baltimore: Penguin.

Cattell, R. B. & Coan, R. W. (1957) Child personality structure as revealed in teacher's behavior ratings. Journal of Clinical Psychology, 13, 315-327.

Cattell, R. B. & Coan, R. W. (1958) Reproducible personality factors lin middle childhood. Journal of Clinical Psychology, 14, 339-345.

Hilgard, E. R., Atkinson, R. C. and Atkinson, R. L. (1975) Introduction to Psychology. 6th. Ed. New York: Harcourt Brace Jovanovich, Inc.

McCall, R. B. (1975) Fundamental Statistics for Psychology. 2nd. Ed. New York:Harcourt Brace Jovanovich, Inc.

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RORSCHACH INDICATORS OF SCHIZOPHRENIA MEASURED BY EXNER'S SCHIZOPHRENIA INDEX (SCZI)

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ABSTRACT

This research investigated the Rorschach Indicators of Schizophrenia as measured by Exner's Schizophrenia Index (SCZI). Eighty adult psychiatric patients (40 schizophrenics and 40 non-schizophrenics) were selected from six different Psychiatric Hospitals of the state of New Jersey, U.S.A. A dual diagnostic procedure was used to ensure the accuracy of the diagnostic classifications of the subjects. This involved cross validations by anindependent senior clinical psychologist and / or Principal Clinical Psychologist who used observation and unstructured interview following DSM-III-R criteria (1988).

Each subject was administered Rorschah Inkblot Test individually by doctoral level psychology interns who were blind to the diagnosis of the subjects. 30% of the total Rorschach protocols were checked for coding and scoring by an independent Principal Clinical Psychologist and the principal researcher of this study who were skilful in Exner's comprehensive scoring system. ANOVA yielded a significant F ratio : $F (1,78) = 42.36$, $P < .01$). The schizophrenic group's mean score ($X = 4.33$) was significantly higher than the mean score of non-schizophrenics ($X = 2.28$). Discriminant analysis yielded the highest prediction accuracy (83% of the grouped cases were accurately diagnosed) when ALOG, FABCOM, DV, SCZI, X-%, F, FQ_o, D, COL-Sh Blend, Fr + rF and L variables of Exner's comprehensive scoring system were included in the analysis.

INTRODUCTION

Rorschach is perhaps the most popular and the most frequently used, yet, the least agreed upon test in clinical assessment. Although it has gone through a stormy phase of "Anti-Rorschach" during 1950's and 1960's; the 1970's and 1980's Rorschach research has reinstated its status as the most powerful and effective tool (Exner 1978, 1982, 1986 and Weiner 1966, 1983).

Much of the criticism on the use of Rorschach Test has focused on the reliability and validity of the test. The problems of the validation of Rorschach indicators have been seriously discussed over decades by Benton (1950); Cronbach (1949); Ferguson (1947); Hertz (1941); Sarason (1950) and Rotter (1948). The truth is that before 1970's there were no standardized norms for the scoring and evaluation of Rorschach protocols. Consequently, the use of Rorschach in clinical assessment has often proved to be baffling to the researchers and even irritant to those who advocated the stringent application of psychometric principles to psychological tests. (Exner, 1983, P. 58). Schneider (1950) describes the task of trying to validate such a test which measures some loose and changing theoretical constructs and being "in some way similar to measuring a floating cloud with a rubber band in a shifting wind" (P.26). It is true that the major problem with Rorschach is that no theory can be applied very easily to the construction of the Rorschach Blots themselves. Weiner (1966) and Exner (1986) have formulated some conceptual framework followed by empirical studies that gives more power and construct validity to the indices. Cronbach and Meehl (1955) suggest that the more net work is filled out both empirically and theoretically the easier it is to determine whether or not a test measures a particular construct.

It may be argued that the 1970's and 1980's have witnessed a shift in Rorschach research. The salient feature of these decades is a focus on what the test is rather than projections on to the test as to what it is not. The current emphasis on the possible perceptual, cognitive and problem solving or information processing operations evoked by by Rorschach

testing can be attributed to Exner's incredible efforts to standardize the scoring, coding and interpretation of the protocols. Perhaps, we as diagnosticians and clinicians are confronted a by major task in attempting to differentiate one class of patients (Schizophrenics) from another class of patients (non-schizophrenics) using Exner's comprehensive scoring system provided its validity has been established across the states of America and other cultures. The findings of the present research may enhance our understanding and description of schizophrenia.

It is noteworthy that some of the recent researches on the treatment of schizophrenia indicate that the response to treatment is generally more positive when interventions include a "somatic core", predominantly, some form of drug therapy (May, Tuma, & Dixon, 1976; Exner & Murrillo, 1977). At the same time, there is sufficient empirical evidence that certain kinds of schizophrenic patients do not respond favorably to drug treatment (Klein, Rosen & Oaks, 1973; Rappaport, Hopkins, Hall, Belleze & Silverman, 1976). These inconsistent research findings suggest the significance of a thorough description of the patient before the final treatment plan is formulated (Keith, Gunderson, Reifman, Buchsbaum & Moshner, 1976). Exner's comprehensive scoring system promises such a thorough evaluation, particularly, in the differential diagnosis of schizophrenics. Such a scoring system may be easily used both for assessment and treatment planning if its validity has been established (Weiner, 1983).

Exner (1978) notes "...the difficulties posed in differentiating schizophrenia from nonschizophrenia stem from the basic theoretical conceptions of of schizophrenia" (p.245). There are medical, social, psychological, family, existential, moral and learning theories of schizophrenia with diverse definitions of schizophrenia. Though schizophrenia is one of the most prevalent psychological disorders, the issue of identifying schizophrenia accurately has been a complex and controversial issue for decades (Weiner, 1983 and Exner, 1986). Despite the paradigmatic diversity most of the schema for the differential diagnosis of schizophrenia begin with the general agreement that a disturbance in thinking is the most characteristic feature of schizophrenic condition (DSM- III - R, 1988). However, there is little agreement about the way in

which congnitive disturbance is manifested and about which additional features, among the many that characterize schizophrenics, distinguish it from other conditions in which thinking may be impaired.

Mason, Cohen and Exner's (1985) research on schizophrenic, depressive and non-patient personality organizations indicates that there are some differences of degree; with schizophrenics and non-patients being most markedly different from each other and with depressives having aspects similar to both groups. However, it is mainly evident that each group's factor structure is essentially unique, and describes a personality organization specific to each. (p.304). Exner (1986) proposed four clusters indicative of salient features of schizophrenia. These are : (1) inadequate perception, (2) disordered thinking, (3) interpersonal ineptness, and (4) inadequate control. The bulk of his systematic research work and empirical findings suggest that several Rorschach variables of the comprehensive scoring system (Exner, 1986 & 1988) relate to these features either directly or indirectly. Our major problem is that none of these variables or features is exclusive to schizophrenia (Exner, 1986). For instance, many psychiatric groups have inadequate controls, such as, borderline personalities, impulsive styles and histrionics, etc. Similarly, serveral psychiatric groups, such as, schizoids, immature personalities and some character disorders. tend to be inept in social relationship. But, no group, other than schizophrenic, has been defined or conceptualized as having "both the problems of disordered thinking and inaccurate perceptions". (Exner 1986, P. 418). Exner and Weiner (1982) suggest that 69 variables of Exner's scoring system (1986 & 1988) tap into the cognitive, perceptual, interpersonal and affective processes of the individual that often determines the type of psychopathology, as well.

In an extensive follow-up study, Exner (1988) states "We are continuing to study the importance of LV1 (Level one) and LV2 (Level two) differentiation. LV2 answers appear with low frequency in 250 records of non-psychotic and nonschizophrenic adult out-patients". (Exner, 1988; 8-9). In fact, Exner(1974, 1978, 1986 & 1988) was the first one to develop specific criteria utilizing Rorschach indicators that identify schizophrencs from non-schizophrenics. This special index for the assessment of schizophrenia is called the Schizophrenia Index (SCZI)

which is composed of the following critical variables derived from Exner's comprehensive system (Exner, 1986 & 1988) :

1. X + % < 70
2. FQ- > FQ_u or X - % > 20
3. M - > o or W Sum 6 > 11
4. Sum DV + DR + INCOM + FABCOM + ALOG + CONTAM > 4
5. Sum DR + FABCOM + ALOG + CONTAM > Sum DV + INCOM

   or M - > 1

   Total Possible Positives = 5

The SCZI is basically derived from series of empirical studies carried out by Exner between 1974-88. Colligan & Exner (1985) found that the average of the five critical scores (DV, INCOM, ALOG, FABCOM & CONTAM) were significantly greater for the schizophrenic group than for the nonschizophrenic. Exner (1986) further states that ``DV appears to involve brief instances of cognitive mismanagement, whereas, CONTAM indicates severe form of cognitive disorganization'' (P.375). INCOM signifies unusual condensation of blot details in a single object, and as such, apparently indicates a form of discrimination failure and concrete reasoning. Weiner & Exner (1978) found that FABCOM occurs more frequently in the records of schizophrenics and reflects loose associations that often occur in disorganized mode of thinking.

The present research was an attempt to check the validity of the Rorschach manifestations of schizophrenia as measured by the SCZI of Exner's Comprehensive Scoring System (Exner, 1978,1986 & 1988).

METHOD

The present research follows an ex post facto research design. A true experimental design could not be used because the condition of the interest, the diagnostic classification of the subjects, was not randomly assigned but was sampled from already pre-existing groups in a natural clinical setting. Thus a comparative case-groups sampling strategy was used in which one group of cases (schizophrenics) was compared with another group (nonschizophrenics) in the inpatient setting of the six different psychiatric hospitals of the state of New Jersey, U. S. A.

Subjects.

A fairly large sample of 80 adult hospitalized psychiatric patients (40 schizophrenics and 40 nonschizophrenics) was obtained from Greystone Park Psychiatric Hospital, Marlboro Psychiatric Hospital, Trenton Psychiatric Hospital, Ancora Psychiatric Hospital, Essex County Hospital and Atlantic Mental Health center of the State of New Jersey, U. S. A. based upon the availability of the clients.

Since the demographic differences between the diagnostic classes reflect some real world associations with the disorder itself, it made no sense to control for some inpatient aspects of the disorder, such as, age, sex, education, marital status and/or socioeconomic status. Moreover, there is sufficient clinical evidence that suggests matching on one variable often systematically unmatches on another variable. Given this argument, the two samples were not matched on age, education, marital status and the treating facility.

However the descriptive characteristics of the sample by sex, age, facility, marital status, ethnicity and diagnoses are reported in Table 1 under section titled Statistics and Results.

TABLE I

DESCRIPTIVE-CHARACTERISTICS OF THE SUBJECTS (N=80)

Variables	Schizophrenics		Non-Schizophrencs	
	Freq	%	Freq	%
Sex				
Males	21	52.5%	22	57.5%
Females	19	47.5%	18	42.5%
Facility				
Greystone	29	72.5%	21	52.5%
Marlboro	2	5%	3	7.5%
Trenton	3	7.5%	1	2.5%
Ancora	3	7.5%	4	10%
Essex County	3	7.5%	9	22.5%
Atlantic MHC	0	0	2	5%
Ethnicity				
Caucasians	25	62.5%	23	57.5%
Black	6	15%	7	17.5%
Hispanic	2	5%	2	5%
Other	7	17.5%	8	20%
Marital Status				
Married	6	15%	3	7.5%
Divorced	5	12.5%	3	7.5%
Engaged	0	0	1	2.5%
Separated	0	0	1	2.5%
Widowed	0	0	0	0
Single	29	72.5%	32	80%

Age Ranges Years	Freq	%	Freq	%
18-24	2	5%	10	25%
25-31	11	27.5%	10	25%
32-38	11	27.5%	12	30%
39-55	15	37.5%	7	17.5%
55 & above	1	2.5%	1	2.5%

Diagnostic Classification		Freq	%
Chronic Undifferentiated Schizophrenics		18	45%
Paranoid Schizophrenics		20	50%
Schizo-Affective Cases	2	5%	
Major Depression-Recurrent		17	42.5%
Bipolar Disorder		7	17.5%
Anxiety Disorder		1	2.5%
Organic Brain Syndome		4	10%
Substance Abuse		4	10%
Personality Disorder		2	5%
Sexual Disorder		1	2.5%
Adjustment Disorder		1	2.5%
Pseudodementia		3	7.5%

Note: % of each subclassification is based upon the total number of the subjects in each group... Schizophrenic (N=40) and non-Schizophrenics (N=40).

Instruments

1. Rorschach Inkblot Test (10 cards).
2. Structural summary sheets (Exner's Comprehensive Scoring System).
3. Diagnostic Statistical Manual Third Edition.
4. Observation and Interview.

Procedure

Permission to perform the study was obtained either directly from the participating facilities and/or was sought from the doctoral level psychology interns who were affiliated with those facilities from where they collected the data.

A special consent form was devised and approved by the Greystone Park Psychiatric Hospital 's Research Committee and its Administration prior to data collection. It was worth mentioning that a rigorous evaluation of the research project, procedure and methodolcgy was mandatory at this facility. Thus the approved consent form was to be signed by each of the patients or patient's guardian prior to the administration of the Rorschach.

Procedures independent of the hospital diagnosis were used to ensure the accuracy of the diagnostic classification of the subjects. Cross validation of the hospital diagnosis was carried out independently by a senior clinical psychologist who used both observation and unstructured interview based upon DSM III-R criteria. The patients with inconsistent diagnoses were excluded from the research sample. The same inclusion-exclusion criteria were used for both the schizophrenic and nonschizophrenic groups. Such a dual diagnostic procedure was imperative to increase the internal validity of the research and to enhance the reliability and validity of the diagnostic classification of the subjects.

Finally, each of the subjects in the two diagnostic groups was administered Rorschach Inkblot Test individually by Ph. D. level clinical psychology interns hired by the department of Human Services, the State of New Jersey, U.S.A. for their professional training in clinical psychology. All of the interns had received training in Exner's Comprehensive Scoring System and were working under the supervision of licensed American clinical psychologists for a minimum of one year of their internship. They were blind to the purpose of the present research as well as to the diagnostic classification of the subjects till they had finished the coding and scoring of all of their client's protocols.

Later on, 30% of the protocols were rescored and reviewed by an independent Principal Clinical Psychologist and the principalresearcher of this study. The inter-rater reliability among these scores was 94%. Though Exner (1987) recommended 40% of the total protocols to be cross-validated, Reynolds (1987) and Brabender (1987) were supportive of 30% of the total protocols to be cross-checked by independent scorers for the sake of economy of time and money.

RESULTS AND DISCUSSION

One-way analysis of variance (ANOVA) was performed to determine whether the schizophrenic group differed from the non-schizophrenic group on Exner's SCZI. ANOVA yielded a significant F ratio:F (1,78) = 42.36, $P < .01$ (Table 2).

TABLE II

MEANS. STANDARD DEVIATIONS AND ONE-WAY ANALYSIS OF VARIANCE SUMMARY FOR SCZI SCORE AND TYPE OF DIAGNOSTIC GROUP

Group	N	Mean	SD	SE
Schizophrenics	40	4.33	1.23	.19
Nonschizophrenics	40	2.28	1.57	.25

Analysis of Variance

Source	SS	df	MS	F
Between Groups	84.05	1	84.05	42.36*
Within Groups	154.75	78	1.98	

* $P < .01$

Further analysis of the data indicates that the schizophrenic group's

mean score ($\bar{X}$=4.33) is significantly higher than the mean score ($\bar{X}$=2.28) of nonschizophrenic group on SCZI.

Discriminant analysis yielded the highest prediction accuracy (83% of the grouped cases were accurately diagnosed) when ALOG, FABCOM, DV, SCZI, X - %, F, FQ_o, D, Col-Sh Blend, Fr+rF and L were included in the analysis.

TABLE III

CLASSIFICATION RESULTS FROM DISCRIMINANT ANALYSIS ON VARIABLES ALOG, FABCOM, DV, SCZI, X-%, F, FQ_o, COL-SH BLEND, F_r+_rF, D

Actual Group	N	Predicted Group Membership	
		3	4
Group 3	40	35 (87.5%)	5 (12.5%)
Group 4	40	9 (22.5%)	31 (77.5%)

Percent (%) of grouped cases correctly classified = 82.50 *
* P < .01
Note : Group 3= Schizophrenic Group (N=40)
Group 4= NonSchizophrenic Group (N=40)

Thus it may be concluded that ALOG, FABCOM, DV, SCZI, X-%, FQ_o, D, Col-Sh Blend, Fr+rF and L are the potent Rorschach Indicators (as measured by Exner's SCZI) which successfully discriminate schizophrenics from non-schizophrenics. The findings of the present research are consistent with the series of clinical researches conducted by Exner (1978, 1986 and 1988); Exner, Thomas and Mason (1985); Exner and Weiner (1982). In the light of these results, it may be stated

that schizophrenics typically have much difficulty perceiving their world and themselves accurately as also supported by other researchers (Chapman, 1979 and Magaro, 1981). Furthermore their perceptual distortions are often reflected in poor or inappropriate judgement (Weiner, 1963 and Exner, 1986). Consequently, in extreme forms these perceptual disturbances may create the basis for hallucinating experiences which might have resulted in schizophrenic's elevated scores on SCZI. It was further noticed that the elevated scores of the schizophrenic group on some other variables, such as FQ - ; X - %; M-; W sum 6; FABCOM and ALOG were also associated with disturbances in their cognitive-perceptual processes.

It may be argued that Rorschach Inkblot Test provides an excellent opportunity to elicit the problems of disordered thinking, inaccurate perception and poor reality-testing without putting the subject on his/her guard.

Exner (1986) states that X-% provides the data that disregards the appropriate use of the contours of the blot. "In fact, they are violations of reality" (p. 368).

Thus, it may be stated that X-% can be used as one of the indicators of schizophrenic type problems in the perceptual accuracy and integration-encoding operations. FABCOM and ALOG are more serious signs of cognitive slippage. The significant elevation in FABCOM and ALOG responses of the schizophrenic sample (under study) reflects their loose associations, poor logic, inconsistent, disorganised and primitive thinking as well as flawed judgement. Consequently, it often has an adverse impact on decision making operations, modulation of affects and formulation of behaviour at both intrapersonal and interpersonal levels (Exner, 1986; Weiner and Exner, 1978).

It is worth mentioning that the schizophrenics used less of the symmetry of the blot and rarely saw the reflection and/or mirror images on the inkblot as compared to the non-schizophrenics resulting in below average Fr+rF score. It maybe argued that perhaps schizophrenics'

limited capacity for object relations and loose "I - Thou" boundaries (self-object relations) interfere with their perception of symmetry and reflections or mirror images on the blot. The schizophrenics' distorted self-image, blending and merging of thought processes and loosening of associations might have blocked their ability to see the symmetry of the blot and use it in the form of a pair or Fr+rF responses. This hypothesis is further supported by schizophrenics' elevated scores on X - % and M - that indicate distorted form quality.

To sum up, incoherent and disordered thinking, perceptual distortions and idiosyncratic mode of expression seem to be the salient features of schizophrenia. This information is of immense clinical value for the differential diagnosis of schizophrenia, schizo-affective disorder and depression. Therapeutically, it appears more crucial to work over the primary goal of improvement in reality testing and perceptual accuracy while working with the schizophrenic population. Hypothetically, the schizophrenic population may benefit more from goal-oriented, ego-strengthening and structured interventions rather that non-directive and insight oriented treatment strategies. The underlying rationale is that distortions in clients' perceptual and cognitive processes would interfere with the psychodynamic mode of intervention and its effectiveness.

Furthermore, the findings of this research may be helpful in early detection of schizophrenic pathology prior to its manifestation in form of a full blown schizophrenic breakdown. However, intensive and extensive cross cultural research is strongly recommended in order to enhance its applicability to the third world population, as well.

REFERENCES

American Psychiatric Association (1988) Diagnostic and Statistical Manual of Mental Disorders. (3rd ed) Revised (DSM - III - R). Washington, D. C.: APA.

Benton, A. L. (1950). The experimental validation of the Rorschach Test. British Journal of Medical Psychology, 23, 45-58.

Brabender, V. (1987). Personal Communication. Friends Hospital,Philadelphia, U. S. A.

Colligan, S. C. and Exner, J. E. (1985). Response of schizophrenics and non-patients to tachistoscopic presentation of the Rorschach. Journal of Personality Assessment, 49,(2),129-139.

Cronbach, L. J., (1949). Pattern Tabulation: a statistical method for analysis of limited patterns of scoring with particular reference to the Rorschach Test. Educational Psychological Measurement, 9, 149- 171.

Cronbach, L. J., and Meehl, P. E. (1955). Construct validity in psychological tests. Psychological Bulletin, 53, 281- 302.

Chapman, L. J., (1979). Recent advances in the study of schizophrenic cognition. Schizophrenia Bulletin, 5, 568-80.

Exner, J. E. (1988). Rorchach workshops: Alumni News Letter, Asheville, NC: Rorschach Workshops, 3-12.

Exner, J. E. (1986). The Rorchach: A Comprehensive System. Vol. 1. 2nd ed. New York: John Wiley and Sons. P. 304, 368, 375, 376, 418-419.

Exner, J. E. (1983). Research Assesment. In I. B. Weiner (Ed.) Clinical Methods In Psychology, 2nd ed. New York: John Wiley and Sons. Chapter 2, PP. 58-96.

Exner, J. E. (1978). The Rorschach : A Comprehensive System, Vol. 2 Current Research and Advanced Interpretation. New York: Wiley and Sons.

Exner, J. E. (1974). The Rorschach: A Comprehensive System. Vol. 1. New York: Wiley and Sons.

Exner, J. E. and Weiner, I. B. (1982). The Rorschach: A Comprehensive System: Vol. 3 Assessment of Children and Adolescents. New York: Wiley and Sons.

Exner, J. E. and Murrillo, L. G. (1977). A long term follow-up of schizophrenics treated with ECT. Diseases of the Nervous System, 38, 162-168.

Ferguson, G. A. (1951). Approaches to the experimental study of Rorschach Test. Canadian Journal of Psychology, 5 157-166.

Hertz, M.R.. (1941). The validity of the Rorschach method. American Journal of Orthopsychiatry, II 512-520.

Keith, S.J., Gunderson, J.G., Reifman, A., Buchsbaum, S., & Moshner, L.R. (1976). Special Report: Schizophrenia. Schizophrenia Bulletion, 2, 510-565.

Klein, D.F., Rosen, B., & Oaks, G. (1973). Premorbid asocial adjustment and response to phenothiazine treatment among schizophrenic patients. Archives of General Psychiatry, 29, 480-484.

Magaro, P.A. (1981). THe Paranoid and the Schizophrenic: The case for distinct congnitive-style. Schizophrenia Bulletin. 7, 633-661.

Mason, B.J., Cohen, J.B., & Exner, J.E. (1985). Schizophrenic, depressive and non-patient personality organizations described by Rorschach factor structures. Journal of Personality Assessment, 49, 3, 295-305.

May, P.R., Tuma, A.H., & Dixon, W.J. (1976). Schizophrenia: A

follow-up study of results of treatment. I: Design and other problems, Archives of General Psychiatry, 33, 474-478.

Rappaport, M., Hopkins, H.G., Hall, K., Belleze, T., Siverman, J. (1976). Acute Schizophrenia and Phenothiazine Utilization. 1. Clinical Outcome, Final Report, National Institute of Mental Health, NIMH Grant 16445.

Reynolds, D. (1987). Personal Communication. Temple University, Philadelphia, U.S.A.

Rotter, J.B. (1948). The present status of the Rorschach in clinical and experimental procedures. Journal of Personality Assessment, 16, 304-341.

Sarason, S.B. (1950). The test situation and the problem of prediction. Journal of Clinical Psychology, 6, 387-392.

Schneider, L.F. (1950) Rorschach validation: Some methodological aspects. Psychological Bulletin, 47, 493-508.

Weiner, I.B. (1983). (Ed). Clinical Methods In Psychology, 2nd ed. New York: Wiley & Sons. Chapter 2, pp. xii, 58-96.

Weiner, I.B. (1977) Rorschach Indices of Disordered Thinking In Patients And Non-Patient Adolescents. IXth International Rorschach Congress: Switzerland.

Weiner, I.B. (1966) Psychodiagnosis in Schizophrenia. New York: Wiley & Sons. Chapter, 1,2,3, pp. 3-26.

Weiner, I.B. & Exner, J.E. (1978). Rorschach indices of disordered thinking in patients and non patient adolescents and adults. Journal of Personality Assessment, 42, 339-343.

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CASE HISTORY AND TREATMENT OF A CASE OF OBSESSIVE COMPULSIVE DISORDER

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INTRODUCTION

Sara (not her real name) was a forty five year old housewife. She was educated up to high school from an English medium school and came from the upper socioeconomic class of Karachi. She was brought to the author by her sister with the complaint of excessive washing of every usable thing alongwith her body which ultimately led to a very aggressive stage during an episode of borderline psychosis.

CASE HISTORY

Sara was second born in a family of four siblings. She has one elder sister and two younger brothers. All the other siblings were happily married. Sara was married to a first cousin at the age of twenty five years. Her husband was a Ph.D. Actually it was Sara who enabled her husband to go through with higher education because although he belongs to the same family his financial conditions were not good and Sara financed his higher education. He stayed abroad for five years and at his return found that Sara had developed the symptoms of excessive religiosity and did not even communicate properly with her own sisters and brothers as she felt that everything in the world is dirty. When the husband tried to approach her she literally asked him to go and perform his `ablution' before he could have any sexual relations with her. The husband was absolutely shocked by this demand as well as when he found that she had secluded herself to such an extent that no one could approach her and no

one could enter the room.

Sara did not use the attached bathroom but used to go to another bathroom outside the courtyard wearing special wooden slippers and used to throw all her clothes in the courtyard from inside the bathroom. Her older sister was the only one who was allowed to bring fresh clothes and hang them in the bathroom but that too after Sara had made sure that her elder sister had washed her hands twenty times with soap. All this was very troublesome for the older sister had even begun to have problems with her husband and two children as they wanted her to tell Sara to go and live in another house. Ultimately Sara's husband got a house and Sara shifted with him to another locality but her symptoms became so exaggerated that for example she even began to wash brand new suitcases which were brought by her husband from abroad. She even began to wash leather shoes and put them in the sunlight to dry. Leather goods and other household items were thus ruined. Sara lived with her husband in the same condition for about ten years but did not have any children as she did not allow her husband to have any sexual relations with her.

In the meantime she began to write poetry and wrote a very good autobiography in Urdu poetry in which she narrated all the miseries she had gone through over the years. To top it all the husband began to have an affair with another women who was highly qualified and ultimately married her. Sara came to know about the marriage two days prior to her being brought to the author. This proved to be the proverbial last straw and she became aggressive and suffered a borderline psychotic episode.

TREATMENT

Sara was shown to the medical officer in the clinic who ruled out physical problems and then she was shown to the psychiatrist who gave antipsychotic drugs in order to calm her down. She was ultimately given six E.C.T.'s by the psychiatrist. She then became amenable to talking and hence psychotherapy was started along with the psychotropic drugs. She remained in psychotherapy for about one and a half years and came every alternate day for a session of fifty minutes

each. During the psychotherapy it came to light that Sara had a lot of proposals from very well-to-do families but she fell in love with her intelligent and smart but poor cousin. She married him against the wishes of the family and sold all her ornaments and valuables which were given to her by her own family in her dowry in order to educate her husband as she herself had a highly intellectually developed mind. Her symptoms started after she began to detect from the letters of her husband that he was flirting with other women abroad. It was a blow to her when this was confirmed by a very trusted friend of the husband. It was after this episode that she began to take refuge in her symptoms which culminated in a psychotic episode, after the second marriage of her husband. It may be noted that she refused to take divorce from her husband inspite of the fact that he began to live with the other woman.

During psychotherapy she was made to realize that she had handled the entire situation in a highly emotional manner, and ultimately gained insight after a prolonged working through. The psychoanalytically oriented treatment proved very helpful and she ultimately gave up all medicines and began to live with her sister with the slight but manageable symptom of hand washing only. She began to teach in a primary school which kept her occupied and even became attached to her sister's grandchildren. Sara is still alive at the age of sixty five and phones the author at least twice a year for greetings on Eids (two religious festivals).

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ACHIEVEMENT MOTIVATION AS A RISK FACTOR OF HEROIN ABUSE IN PAKISTAN

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ABSTRACT

Achievement motivation as a psychosocial risk factor was studied in this investigation. Research design of the study was formulated after conducting a pilot study on psychosocial risk factors of heroin abuse in Pakistan. A sample of one hundred subjects comprising of fifty heroin abusers and fifty matched non-users was taken. The data was collected from the psychiatry ward of Civil Hospital, Karachi. Achievement motivation was assessed on the basis of information derived through intensive interview, a specially designed questionnaire and Thematic Apperception Test (TAT) pictures. A chi-square test of independence was applied for the statistical analysis of the data. Results obtained indicated that abusers perceived low achievement motivation significantly ($P<.001$) more as compared to non-users, while non-users indicated greater tendency to perceive high achievement motivation as compared to abusers.

INTRODUCTION

In an exploratory study, Streit and Oliver (1972) found that the following statements differentiate heavy drug users from other students: "Life is boring". "I

don't care about grades in school", "I don't want to go to college". Smith and Fogg (1978) demonstrated that this lack of interest in achievement is a precursor rather than a consequence of drug abuse in a longitudinal study in which high school students who started using drugs before others had been previously characterized as not working hard, not ambitious, not striving for achievement, being absent a lot and having poor grades despite adequate intelligence. The researchers suggest that the findings mean students with a low sense of involvement in competitive activities are more likely to initiate early drug use.

SCHOOL FACTORS

The research on the relationship between school experience in childhood and adolescent drug use has produced mixed results. Several researchers have attributed an independent effect to school failure as a predictor of drug abuse (Robins, 1980; Anhalt and Klein, 1976; Jessor, 1976; Brooks et al., 1977; Galli and Stone, 1975). Poor school performance is a common antecedent of initiation into drugs (Jessor and Jessor, 1977; Kandel et al., 1978; Johnston, 1973), and has been found to predict subsequent use and levels of use of illicit drugs (Smith and Fogg, 1978). Drug users and juvenile delinquents appear to perform more poorly in junior and senior high schools than do nonusers and nondelinquents (Kelly and Balch, 1971; Polk et al., 1974; Frease, 1973; Senna et al., 1974; Simon, 1974; Anhalt and Klein, 1976; Jessor, 1976), although this relationship has not been found among college students (Miranne, 1979). Robins (1980) characterizes drug users as having average or better IQ's but being underachievers.

What is not clear from the existing research is when, developmentally, school achievements become salient as a possible predictor of drug use. While underachievement and school failure have been positively linked to adolescent substance use and delinquency, Flemming et al. (1982) found that children who scored high on first-grade readiness and IQ tests exhibited earlier and more frequent use of alcohol and marijuana. These students were more than twice as likely to become frequent users. Teacher-rated learning problems for first grade students were not related to future substance use when shyness and aggressiveness were controlled. Agressiveness in the Woodlawn sample of first graders was invariably accompanied by learning problems, but learning problems frequently

occurred without aggressiveness and did not alone predict subsequent drug use (Kellam and Brown, 1982). Similarly, Spivack (1983) and Spivack et al. (1978) determined that initial signs of academic achievement in the first grade were not predictive of subsequent conduct or delinquent disturbances. Other studies indicate that by the end of elementary school, low achievement, low vocabulary and poor verbal reasoning are predictors of delinquency (Farrington, 1979; Rutter et al., 1979). Kandel (1981) suggests that low school performance does not itself lead to drug use, but that the factors leading to poor school performance are related to drug involvement. It is already noted that first-grade teacher ratings of antisocial behaviours are good predictors of later drug abuse and delinquency. These findings suggest that social, not academic, adjustment is more important in the first grade as a predictor of later serious drug abuse. Academic performance appears to emerge in importance as a predictor sometime after the first grade. It is possible that early antisocial behaviour in school predicts both academic underachievement in later grades and later drug abuse.

This suggestion is consistent with Spivack's (1983) results regarding the role of school failure in the prediction of delinquency. While early academic failure (in first grade) did not predict delinquency in Spivack's study, academic failure beginning in grade five did predict subsequent community delinquency among males. Spivack found that antisocial and maladaptive coping behaviours in earlier school grades contributed to academic failure in late elementary grades, which, in turn, contributed to subsequent misconduct and delinquency. Spivack (1983) concluded that academic failure in the late elementary grades aggravates the effects of early antisocial behaviour.

A second school factor related to drug use is a low degree of commitment to education. Students who are not committed to educational pursuits are more likely to engage in drug use and delinquent behaviour (Hirshi, 1969; Elliott and Voss, 1974; Friedman, 1983; Galli and Stone, 1975; Robins, 1980; Brooks et at., 1977). The annual surveys of high school seniors by Johnston et al. (1981, 1982, 1984) show that the use of hallucinogens, cocaine, heroin, stimulants, sedatives, or non-medically prescribed tranquillizers is significantly lower among students who expect to attend college than among those who do not plan to go on to college. Drug users are more likely to be absent from school, to cut classes, and to

perform poorly than non-users (Brooks et al., 1977). Greater drug use has been demonstrated among dropouts (Annis and Watson, 1975). Factors such as how much students like school (Kelly and Balch, 1971), time spent on homework, and perception of the relevance of course work also are related to levels of drug use (Friedman, 1983), confirming a negative relationship between commitment to education and drug use, at least for junior and senior high school students. In the light of the literature review the following hypothesis was framed: "Abusers will perceive low achievement motivation significantly more than non-users."

METHOD

Research design was framed after conducting a pilot study at the Civil Hospital, Karachi (1984-85). On the basis of the pilot study a structured interview was designed. It consisted of 1) Identifying data of the subjects; 2) Intensive interview related to earlier drug use or abuse and various experiences related to drugs or substances; 3) Questionnaire and 4)TAT cards. Research instruments were prepared in consultation with other clinical psychologists and the director of the Insitute of Clinical Psychology.

Operational Definitions:

Abusers

The patients of the Civil Hospital who were heroin addicts were defined as abusers even if they were taking other substances.

Non-users

The subjects who were matched with the abusers but were free of any kind of addiction were defined as non-users.

The following testing variables were also defined and a three-point rating scale was prepared. All the scores from all sources of data (interview, questionnaire and TAT) were measured by this scale (Appendix).

"Perceived achievement motivation" was defined and scored according to whether the following traits were seen as "high", "moderate", or "low" by the subjects:

Aspires to accomplish different tasks; maintains high standards; willing to work towards different goals; and put forth efforts to attain excellence; responds positively to completion of tasks.

Sample

One hundred subjects comprising of fifty heroin abusers and fifty non-users were studied for this investigation. The groups of abusers and non-abusers (normals) were carefuly matched on the following variables: residential area; age group; education; income (monthly); profession; family and marital status.

Procedure and Administration

The subjects were contacted at the O.P.D. (outdoor patient department) which was held daily at the Civil Hospital, Karachi. Since matched pairs (abusers and non-users) were not easily available, most of the heroin abusers selected as subjects were matched with one of their attendants (friend, colleague, or brother) who accompanied them to the hospital. During the initial meeting each subject was motivated to undergo the assessment process.

Only one subject was assessed at a time. After recording the identifying data, the subject was asked to report freely and in detail about his heroin addiction problems including his first experience, age when he started, causation and various other experiences. In case of illiterate subjects the qiestionnaire was read out and the answers were noted down. Finally TAT cards were administered to the subjects, one by one, and he was requested to make stories following the given instructions.

Scoring

Frequency of responses was calculatd for all psychosocial variables from the structured interview and each response was measured on three point rating

scale i.e. high, moderate and low (Appendix). In order to assess inter-rater reliability a sample of ten forms (response sheets) were selected. Thus every tenth case was selected and then read by another trained and qualified rater. The Pearson product moment coefficient of correlation was computed for all the variables which was found to be moderately positive.

The relationships of the risk factor with abusers and non-users were tested by the statistical method of chi-square for significance.

RESULTS

The results of the statistical analysis are shown in the table. It may be noted that the chi-square ($X^2 = 15.93$, df = 2, $p < .001$ level) indicates that abusers tend to perceive low achievement motivation as compared to the non-users. The required chi-square is $X^2 = 13.82$, df = 2 for $p < .001$ level of significance.

TABLE

THE EFFECT OF PERCEIVED ACHIEVEMENT MOTIVATION ON ABUSERS AND NON-USERS

Categories of Responses	Abusers	Non-users	Both
High Achievement Motivation	21	50	71
Moderate Achievement Motivation	07	10	17
Low Achievement Motivation	20	07	27
Total	48	67	115

$X^2 = (fo-fe)^2 = 15.93$; significant at 0.001 level.

DISCUSSION

The investigation was conducted to study certain psychosocial risk factors of heroin abuse in Pakistan. Regarding achievement motivation results obtained indicate that abusers tend to perceive low achievement motivation while non-users tend to perceive significantly high achievement motivation.

The hypothesis is supported by the data and is significant at P<.001 level.

As a matter of fact acquisitions and accomplishments improve one's self-concept. Therefore if one aspires to accomplish different tasks and maintains standards one can if one has positive self-esteem. Commonly students who are not committed to educational pursuits are more likely to engage in drug use and delinquent behaviour. It is found that they get bored in schools and do not care about grades. Such lack of interest in achievement is a precursor rather than consequence of drug abuse. Lower self-esteem is also associated with dropping out of school.

In Pakistan, the situation is not different from other developing countries. There is a high rate of illiteracy. School education is not freely available. The few public schools do not meet the requirements of the increasing population. These schools are not upto the standard where the children can get suitable education or earn respect. Lack of incentives along with lower academic aspirations cause further problems, for example, one of the grave problems is running away from schools. Consequently the rate of literacy has not been increasing for many years and the same is the case with other achievements in various fields. Non-users are found to have higher academic aspirations and acquisitions as compared to abusers. Although most of them could not acquire education and status according to their level of aspiration but they tended to achieve and move towards them and attempted to accomplish different tasks in other possible directions.

Abusers showed poor motivation for school education and they expressed dissatisfaction with school teaching and the teachers' attitude towards them. They felt compelled to use drugs at a very early stage. They even dropped out of school at an early age and got engaged in jobs of lower level.

Tabulated results show that abusers have somewhat equal number of responses for high and low achievement motivation; but in comparison with non-users' it is found that non-users frequency of responses is greater for high achievement motivation and there are very few responses for low achievement motivation. This clearly conveys that abusers have a lower tendency for achievement motivation as compared to non-users.

Thus the results clearly indicate that abusers tend to perceive low achievement motivation even if they are given an equal chance of getting education like non-users.

REFERENCES

Anhalt, H. and Klein, M.(11976) Drug abuse in junior high school populations. American Journal of Drug and Alcohol Abuse 3:589-603.

Annis, H.M. and Watson, C. (1975) Drug use and school dropouts: A longitudinal study. Can Counsel G. (3/4) 155-162.

Brooks, L.S., Linkoff, I.F., and Whiteman, M.(1977) Peer, family and personality domains as related to adolescents drug behaviour. Psychological Reports, 41: 1095-1102.

Elliott, D.S. and Voss, H.L.(1974) Delinquency and Dropout. Lexington: Health and Company.

Farrington, D.P.(1979) Longitudinal Research on Crime and Delinquency. In: Morris, N. and Tonry, M. (Eds.) Crime and Justice: An Annual Review of Research. Vol. 1. Chicago: University of Chicago Press, pp. 289-346.

Flemming, J.P.: Kellam, S.G.: and Brown, C.H.(1982): Early Predictors of alcohol Dependence 9: 285-303 .

Frease, D.E. (1973) Schools and Delinquency: Some intervening processes. Pacific Soc Rev 16: 426-448.

Friedman, A.S.(1983) High school drug abuse clients. In: Treatment research notes, Division of clinical research, National Institute on Drug Abuse. Rockville, MD .

Galli N., and Stone, D.B. (1975)Psychological status of student drug Users. J Drug Educ 5(4): 327-333.

Hirschi, T. (1969) Causes of delinquency. Berkeley: University of California Press.

Jessor, R. (1976) Predicting time of onset of marijuana use: A developmental study of high school youth. J Consult Clin Psych 44: 125-134.

Jessor, R., Jessor, S.L.(1977) Problem behaviour and psychosocial development. A Longitudinal study of youth, New York Academic Press, 281 pp .

Johnston, L.D. (1973) Drugs and American youth. Ann Arbor: Institute for Social Research .

Johnstone, J.W.C. (1981) The Family and Delinquency: A Reappraisal. In: Meade, A.C., ed. Youth and Society: Studies of Adolescent Deviance; Chicago: Institute for jevenile Research .

Johnston, L.D. Bachman, J.G. & O'Malley, P.M. (1982) Highlights from student drug use in America 1975-1981. (National Clearing house for Drug Abuse Information) Rockville, MD: National Institute on Drug Abuse .

Johnston, L.D.; O'Malley, P.M.; and Bachman, J.G. (1984) Highlights from drugs and american high school students 1975-1983. Rockville: National Institute on Drug Abuse .

Kandel, D.B. (1981) Drug use by youth: An Overview. In: Lettieri, D.; and Ludford, J.P., eds. Drug abuse and the american adolescent. National Institute on Drug Abuse Research Monograph 38, DHEW Pub No. (ADM)81-1166. Washington, D.C.: Supt. of docs., U.S. Govt. Print. Off. .

Kandel, D.B.; Kessler, R.; and Margulies, R. (1978) Antecedents of adolescents initiation into stages of drug use: A developmental analysis. In: Kandel, D.B., ed. Longitudinal research in drug use: Empirical findings and methodological issues. Washington, D.C.: Hemispher-Wiley, pp. 73-99.

Kellam, S.G.; Brown, C.H.; and Fleming, J.P. (1982) The Prevention of teenage substance use: Longitudinal research and strategy. In: Coates, T.J.; Peterson, A.C.; and Perry, C., eds. Promoting adolescent health. New York: Academic Press,.

Kelly, D.H., and Balch, R.W. (1971) Social origins and school failure: A re-examination of Cohen's theory of working-class delinquency. Pacific Soc Rev 14: 413-430 .

Miranne, A. (1979) Marijuana use and achievement orientation of college students. J Health Soc Behav 20: 149-199 .

Polk, K.; Frease, D.; and Richmond.; and Richmond, F.L. (1974) Social class, School experience and delinquency. Criminology 12: 84-96 .

Robins, L.N. (1980) The Natural history of drug abuse. In: Lettieri, D.J.; Sayers,

M.; and pearson, H.W eds. Evaluation of treatment of drug abusers, ACTA Psych. Scand., Supple. 284, vol. 62.

Rutter, M. Maughan, B.; Monrtimore, P; and Ouston, J. (1979) Fifteen thousand Hours: Secondary Schools and their effects on children. Cambridge:Harvard University Press .

Senna, J.; Rathus, S.A.; and Siegel, :. (1974) Delinquent behaviour and academic investment among suburban youth. Adolescence 9:481-494.

Simon, W. (1974) Psychological needs, academic achievement, and marijuana consumption. J clinic Psych 30: 496-498.

Smith, G.M., and Fogg, C.P. (1978) Psychological predictors of early use, late use, and non-use of marijuana among teenage students. In: kandel, D.B., ed. Longitudinal research on drug use: Empirical findings and methodological issues. Washington, D.C. : Hemisphere Wiley.

Spivack, G; Rapscheer, L.; Cohen, A.; and Gross, R. (1978) High risk early signs for deliquency and related behavioural difficulites: The first nine years of a longitudinal study. National Insititute for Juvenile Justice and deliquency prevention, Office of Juvenile Justice and deliquency prevention, Law Enforcement Assistance Administration, U.S. Department of Justice, April .

Spivack, G. High risk early behaviours indicating vulnerability to deliquency in the community and school. National Institute of Juvenile Justice and deliquency prevention, Office of Juvenile Justice and deliqunсy prevention, Law Enforcement Assistance Administration. Washington D.C.: Supt. of Docs., U.S. Govt. Print.

Streit, F. and Oliver, H.C. (1972) The Child's Perception of his family and relations to drug use. Drug forum, 1, 283-289.

APPENDIX

ACHIEVEMENT MOTIVATION

This scale measures the level of achievement of the subject which he perceives for the traits: aspiring to accomplish different tasks, maintaining high standards, willing to work towards different goals and putting forth efforts to attain excellence.

1. High achievement level: Aspires highly to accomplish different tasks, maintains high standards to an extent; responds positively to completion and puts forth efforts to attain excellence.

2. Moderate achievement level: Aspires to accomplish different tasks; maintains high standards to an extent; responds positively to completion and puts forth efforts to attain excellence.

3. Low achievement level: Aspires little to accomplish different tasks; does not maintain high standards; responds rarely to completion or to make effort to attain excellence.

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RATE OF ACQUISTION AND EXTINCTION OF KEY-PECKING RESPONSE IN PIGEONS AS A FUNCTION OF EXPERIMENTALLY INDUCED FRUSTRATION BY BLOCKING OF REWARD.

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and

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ABSTRACT

The present study primarily focused on the role of experimentally induced frustration in the acquisition of conditioned response and its extinction in pigeons. Behaviour of six male pigeons of approximately same adlibitum weight, three in each group, were studied under two competing treatment conditions in multipli cross-combinations. The findings revealed that, other factors held constant, the frustrated pigeons demonstrated faster and more efficient learning (acquisition of key-pecking conditioned response) as compared to their counterparts, the non-frustrated pigeons. Similar comparisons on the rate of extinction revealed that frustrated pigeons were more resistant to extinction and took longer in extinguishing the learned response.

INTRODUCTION

Frustration, as a mental and psychophysical state of an organism, has variously been charged with as yielding or leading to some derogatory consequences. It has mostly been conceptualised as either obstructing the normal behaviour or causing deterioration in the quality of emitted responses, so much so that in its extreme form it may result in a complete behavioural block. However,

a number of studies treating frustration as an independent variable or even intervening variable have aptly demonstrated that it may not always have the same effect as mentioned above; conversely, the resultant outcome may prove more desirable and having positive attributes.

Neal Miller (1939), elaborating upon two points in his theory, indentifies the occurrence of frustration as always increasing the tendency of an organism to respond more vigorously and aggressivly in the direction of the visualised goal. This was recognized as prima facie evidence of previous occurrence of frustration. Secondly, frustration was also defined as interference with a behaviour normally leading to a " goal response " or reinforcement type, specified in various versions of the Law of Effect.

According to Amsel (1943) an anticipatory frustration reaction is conditioned to the environmental situation or some specific stimuli in the environment. This anticipatory frustration response in turn affects overt response strength in three ways: (i) by increasing overall drive strength, (ii) by serving as a drive stimulus whose reduction may be reinforcing, and (iii) by inhibiting overt behaviour in a number of superficial ways.

Under frustration a person can perform different behaviours easier than other behaviours, e.g., pushing is experienced easier than pulling, kicking becomes easier under some conditions than others, similarly the form of aggression may also differ in individuals with different circumstances. A forward movement may prove easier than turning, and continuation of response than a change. These observations and many others point to the fact that a response in progress at the time of frustration tends to be highly accessible unless the conditions of frustration may completely block it in some way.

In a series of experiments with children on the effect of frustration and the quality of performance Barker (1938); Barker, Dembo and Lewin (1941) discovered that frustrations of minor and fluctuatory nature, invariably, tended to improve the quality of performance, whereas major and long-persisting frustrations did reflect deterioration in quality and efficiency. However, in the same study they observed an increase instead of decrease in constructiveness after frustration.

Waterhouse and Child (1953) used a carefully developed questionnaire to measure the extent to which individuals habitually respond to frustration with potentially disruptive reactions, such as aggression, self-blame and self-justification. They found that people scoring high on this personality measure, when subjected to experimental frustration, showed a lower quality performance than people scoring low on this personality measure. On the other hand when subjected to the same experimental frustration they actually showed an improvement in the quality of performance.

Individuals who have habitual tendencies to react to frustration with responses which create or strengthen these particular drive states would then improve their performance in the face of actual frustration. The quality of performance is likely to be greatly influenced not only by the drive states created by frustration, but also indirectly by other responses which are evoked by these drive states. The individual's habits of responding to drive states, in particular, are the drive states likely to be evoked by frustration. These are crucial in determining the effect of frustration upon the quality of his performance in the original activity.

In certain situations experimental control of extraneous variables is practically not possible with human subjects. In such situations experimentation using sub-human animals can provide supporting valuable data. Haslerud (1938) studied chimpanzees in which evidence of emotionality was more easily observed than in rats in respoonse to a blocking situation. He found that animals did show overt signs of emotional disturbance (frustration) and this was more pronounced in younger animals. Amsel and Rousel in Mowrer (1952) conducted experiments to examine the change in both behaviour being frustrated and behaviour following the frustration.

Roger and his co-workers (1965) compared the effect of frustration upon the behaviour of children in a non-frustrating play situation with their behaviour in a frustrating situation and he found that the free play situation produced two general kinds of behaviours: (a) occupation with accessible goals and (b) activities in the direction of inaccessible goals. Hull (1943) believed that in frustrating situations the organism produces greater striving towards the blocked goal/s, and during this

period the organism's increased striving may take the form of aggression.

In view of the aforesaid findings as revealed by experimentation with human subjects as well as sub-human animals it was resolved to study the role of frustration in the acquisition of conditioned response by pigeons and its extinction.

The following hypotheses were formulated:

1. Experimentally induced frustration leads to faster rate of responding per unit trial.

2. Experimentally induced frustration leads to slower rate of exinction.

METHODOLOGY

The general experimental design called for a systematic comparison under laboratory-controlled conditions of the pigeons under two competing treatment conditons, i.e. their acquisition of conditioned response (key-pecking response) as well as the extinction of the same as regulated by intermittently induced "frustration" and "no frustration".

Subjects :

Six adult male pigeons of same breed, approximately of comparable adlibitum weight and of the same age, divided into two groups, three representing each treatment condition, were used as experimental subjects in this experiment.

Apparatus and Equipment:

A specially designed Skinner Box was used in this study. The box consisted of two chambers. One of the two chambers had the machinery and the other, the pigeon housing chamber, had pecking discs and a food magazine with external On/Off and colour change controls in the hands of the experimenter. The food magazine too could be operated by the external control. The pigeon housing chamber was made sound-proof and was provided with one-way screen window

facing the experimenter. The behaviour of the pigeon could be observed through this window without causing any distraction to the pigeons under study. In order to avoid suffocation the pigeon housing chamber was also provided with an exhaust fan.

A stop watch and a stop clock were used for recording the time for each trial and for recording the period of induced frustration, respectively. An animal weighing balance was used for daily record of the weight and weighing of the pigeons before and after the experiment.

The pigeons were housed in separate cages made of tin 16 Inch x 14 In., and the front side of the cage had steel mesh. Food and water containers were attached to the front side of the cage with easy access to the pigeons.

Procedure:

After procuring the pigeons from the breeders they were kept separately in their cages in the animal colony and were allowed free access round the clock till such time that they acquired maximum constant weight (Adlibitum weight). They were regularly weighed approximately at the same time every day. When adlibitum weight was established, they were subjected to a weight reduction process through which each pigeon was to be brought down to 75% of their adlibitum weight, i.e., experimental weight. This was accomplished by curtailing their food intake to about 3 grams per day; however, they were allowed water supply.

During this period of weight reduction they were exposed to the magazine training by placing the pigeons one by one in the Skinner Box and allowing them to take the prescribed amount of their food from the food magazine of the Skinner Box instead of the food container of the cage. When the pigeons reduced to their pre-determined experimental weights, i.e. each down to 75% of its adlibitum wt., they were then given whatever amount of food was deemed necessary to maintain their experimental weight. This was followed by the process of behavour shaping. They were taught through a system of preliminary differential reinforcement that only pecking on an illuminated disc (key) in the Skinner Box would bring them the food, i.e. the reinforcement.

All pigeons were behaviour shaped using a continuous schedule of reinforcement. The six behaviour shaped pigeons were then randomly divided into two Treatment Groups, i.e., "Frustrated" (F) and "Non Frustrated" (NF).

On the day/s of the experiment all pigeons (both "F" and "NF") were weighed one by one separately as a pre-requisite to further differential experimental treatment. Three pigeons of the NF group were given 20 consecutive trials, each of 30 seconds duration, separately, and their rates of responding were recorded per unit trial in a regular order both manually as well as with the help of an electronic counter simultaneously. A similar procedure was adopted for recording the rate of responding of pigeons in the F group, except that they were frustrated intermittently by withholding the reward for 15 seconds following a couple of two consecutive trials. This procedure for the two groups, i.e. "F" and "NF" was repeated for three days, and their rates of responding were carefully recorded for each pigeon separately (3 pigeons across 3 days).

After allowing two days complete rest, the pigeons trained under the two competing treatment conditions, i.e., "F" and "NF", were then allowed to exhibit their extinction of conditioned responses, i.e., key pecking with and without induced frustration.

In this part of the study each pigeon was placed one by one in the Skinner Box and their behaviour was observed against a criterion of at least three consecutive peckless trials of 30 seconds duration. Absolutely no reinforcement was to be given even if a pigeon did peck vigorously, however their pecking was recorded per unit trial. This process of observation and recording was continued till such time that at least three peckless (no pecking continuously for 90 seconds) trials was completed. Since the data was to be averaged over three pigeons in each group, therefore for counting extinction experimentally, Trial-Time instead of number of test trials alone was considered cumulatively, taking into account each such trial of 30 seconds.

RESULTS

TABLE I (A) & (B)
CUMULATIVE FREQUENCIES OF KEY-PECKING RESPONSES OF FRUSTRATED (F) AND NON-FRUSTRATED (NF) GROUPS AVERAGED OVER 3 PIGEONS IN EACH GROUP ACROSS 3 CONSECUTIVE DAYS.

Sub - Table (a) "F"

3 pigeons averaged over 3 days per unit trial		Cumulative Frequencies
Trials	f	cf
1	13	13
2	14	27
3	16	43
4	16	59
5	15	74
6	15	89
7	14	103
8	16	119
9	15	134
10	15	149
11	16	165
12	16	181
13	14	195
14	16	211
15	15	226
16	16	242
17	13	255
18	15	270
19	13	283
20	14	297

Sub - Table (b) "NF"

3 Pigeons averaged over 3 days per unit trial		Cumulative Frequencies
Trials	f	cf
1	8	8
2	8	16
3	8	24
4	9	33
5	8	41
6	9	50
7	8	58
8	9	67
9	8	75
10	8	83
11	7	90
12	8	98
13	8	106
14	8	114
15	8	122
16	9	131
17	8	139
18	1	146
19	9	155
20	8	163

TABLE I (C)

RATES OF RESPONDING PER UNIT TRIAL OF EACH PIGEON AVERAGED OVER 3 DAYS SEPARATELY AND AVERAGED PER TWO GROUPS, FRUSTRATED (F) AND NON-FRUSTRATED (NF).

	FRUSTRATED (F) PIGEONS				NON-FRUSTRATED (NF) PIGEONS			
	No.1 cf	No.2 cf	No.3 cf	$\bar{X}$ cf	No.1 cf	No.2. cf	No.3 cf	$\bar{X}$ cf
Rates of Responding Averaged over 3 days.	318	217	356	297	154	179	157	163
Per Unit Trial Rate of Responding	15.90 (16)	10.85 (11)	17.80 (18)	14.87 (15)	7.70 (08)	8.95 (09)	7.85 (08)	(08)

Table I, (a) & (b) present the average response rate of 3 pigeons across 3 days in terms of responses per unit trial, as well as the same being recorded cumulatively for "F" and "NF" in Sub-Tables (a) and (b) separately but on the same page, side by side, for ready reference and comparison. Table I (c) however shows 3 pigeons' cumulative frequencies averaged over 3 days separately in addition to the frequencies calculated per unit trial for "F" and "NF" as groups, and these are 15 and 8 respectively.

For comparing the rates of extinction between the two groups, "F" and "NF" (each consisting of 3 pigeons) simple averages based on their cumulative frequencies could not be taken, as each pigeon took varying numbers of trials in reaching the stipulated criterion of extinction. Therefore the criterion of total time taken (counting from the time the pigeon was placed in the Skinner Box to the

time it stopped pecking), was considered as extinction. The criterion used was at least three consecutive peckless trials, each of 30 seconds duration. Obviously in this situation the performance of one group, "F" could not be compared with that of the other, "NF" group as directly as in the case of acquisition of the pecking response. Thus the findings are being presented in abridged form in Table No. II to illustrate the behaviour of pigeons under two competing treatment conditions on different days.

TABLE II

TIME TAKEN FOR EXTINCTION OF CONDITIONED RESPONSE BY 3 PIGEONS IN EACH GROUP, (F) AND (NF) ON FIRST AND SECOND DAY.

SUMMARY TABLE

Pigeon No.	FIRST DAY		SECOND DAY	
	(F)	(NF)	(F)	(NF)
1	270 Secs. / (09 Trials)	90 Secs. / (03 Trials)	90 Secs. / (03 Trials)	120 Secs. / (04 Trials)
2	450 Secs. / (15 Trials)	330 Secs. / (11 Trials)	150 Secs. / (05 Trials)	210 Secs. / (07 Trials)
3	390 Secs. / (13 Trials)	270 Secs. / (09 Trials)	270 Secs. / (09 Trials)	90 Secs. / (03 Trials)
$\bar{X}$	390 Secs.	230 Secs.	170 Secs.	140 Secs.

Further condensing of information summarized in Table II, yielded average time taken for complete extinction across 1st and 2nd days by (F) and (NF) groups, i.e. 280 seconds and 185 seconds, respectively.

CONCLUSION AND DISCUSSION

The present study primarily focussed on determining whether or not any frustrations in pigeons (ofcourse experimentally induced under laboratory controlled conditions) leads to any significant changes in their behaviour, particularly with reference to the speed and rate of learning a conditioned response and its extinction. This was done with the obvious assumption that a similar effect, to a fairly good extent, can be expected and logically should be reflected in the behaviour of human beings.

The findings of Marquart (1948) and Barker, Dembo and Levin (1941) are particularly worth quoting in this context. They observed that minor and moderate degrees of furstration tended to improve performance, both qualitatively as well as quantitatively, whereas major ones did produce deterimental effects. Marquart in the same study also observed some sporadic gender-related differences but confined to adults only.

In this study, two hypotheses, one which relates to the acquisition of a conditioned response, and the other referring to extinction, were found adequately supported. In the case of learning a conditioned response the trend of positive acceleration was more frequent, whereas a pulling-back effect was relatively more frequent, resulting in a regressive effect.

REFERENCES

Amsel in Hull, C.L. (1943), Principles of Behaviour, New York: Appleton-Century Crofts.

Amsel and Rousel in Mowrer (1952), Learning Theory and Behaviour, New York: John Wiley & Sons.

Barker, R.G. (1938), Frustration as an experimental problem, V. The effect of

frustration upon cognitive ability, Character and Personality, 145-150.
Barker, R., Dembo, T. and Lewin, K. (1941), Frustration and Regression: An Experiment with Young Children, Univ. Lawa, Stud. Child Welfare.
Haslerud, G.M. (1938), Some interrelations of behavioural measures of frustration in chimpanzees (III). Character and Personality, 137-139.
Hull, C.L. (1943), Principles of Behaviour, New York: Appleton Century Crofts.
Marquart, D.I. (1948), The pattern of punishment and its relation to abnormal fixation in adult human subjects, Journal of General Psychology.
Miller, N. et al. (1939) Theory and experiment relating psychoanalytic displacement to stimulus-response generalization, Journal of Abnormal Psychology., 155-178.
Roger et al., in Yates, A.J. (1965) Frustration and Conflicts New York: Wiley & Sons.
Waterhouse and Child in Lawson, R. (1953) Frustration. New York: The Macmillan Company.

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CONTRIBUTION OF MINNESOTA MULTIPHASIC PERSONALITY INVENTORY IN THE DIFFERENTIAL DIAGNOSIS OF PSYCHOSIS AND NEUROSIS

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ABSTRACT

The utility of Minnesota Multiphasic Personality Inventory is examined as a diagnostic tool in the present study in a selected sample of defence service personnel which comprised of 25 diagnosed neurotic and 25 diagnosed psychotic subjects. The results of the research work support the hypotheses and it is revealed that neurotics score higher on neurotic scales at t value of .025 level of significance and that psychotics score higher on psychotic scales at t value of .01 level of significance.

INTRODUCTION

A psychological test is essentially an objective and projective measure of a sample of behaviour. Psychological testing is a relatively young branch of science but no other contribution of psychology has had the social impact equal to that created by psychological tests. Psychological tests used in psychiatry are aimed at helping the psychiatrist make subjective judgements about his patients and are conducted as an aid to clinical diagnosis and an extension of his interviews. Classification of patients done in this way is better than without these tests.

Application of psychological tests are manifold including assessment of intelligence quotient, measurement of personality profiles and assessment of aptitude in jobs and learning of skills, etc. The Minnesota Multiphasic Personality Inventory (MMPI) is an objective personality test and is the most widely used and researched instrument. It is also known to be a valid, reliable and successful inventory which is why the MMPI was selected for the present work. For the

purpose of this paper the scope of the MMPI is limited to the peaks and profiles of neurotic (scales 1,2,3) and psychotic (scales 6,7,8) triads. The personality profiles of the selected subjects are however compared with a normal control group of comparable background.

METHOD

The sample in this study comprises of selected 25 neurotic and 25 psychotic male subjects from the educated population of the armed forces who were examined at different occasions for various physical and psychical symptoms. They were subjected to the following test battery for purposes of psychiatric evaluation and diagnosis:

Structured Interview
Hartford Shipley Intelligence Test
Differential Aptitude Test
Gottschaldt Figures Test
Minnesota Multiphasic Personality Inventory (MMPI)

The tests were administered by a clinical psychologist with the help of medical asssistants. The subjects were duly briefed about the completion of tests and their utility. The importance of their cooperation and their responses to questionnaires was further emphasized in order to obtain adequately reliable data. During the procedure, help and information was offered where needed. Adequate lighting and ventilation was provided and the room was quiet. IBM forms were distributed for marking answers and hand-scoring stencils were applied for scoring purposes. Hathaway's medhod of coding was adopted for the MMPI. A graph of MMPI scales was prepared for each subject and was included in the case sheet. Neurotics in this study are classed as Group I and psychotics as Group II.

TABLE I
RESULTS OF THE MMPI SCALES FOR GROUP I

	?	L	F	K	1	2	3	4	5	6	7	8	9	0	Codes
1	0	63	68	57	98	96	82	74	65	96	87	74	51	68	1267348/059FLK
2	0	56	66	59	85	75	75	64	51	70	107	88	68	64	781236/9405FKL
3	0	83	84	79	108	100	104	87	71	70	81	94	55	64	13284756/09FLK
4	0	53	94	49	97	102	94	76	59	70	99	104	75	63	82713496/05FLK
5	0	66	58	72	87	77	82	64	49	50	64	65	53	64	132/8470 965 KLF
6	41	53	58	64	70	77	76	57	51	62	79	65	48	80	07231/86459 KFL
7	0	66	73	55	80	101	82	62	55	65	85	82	60	83	270381/6495 FLK
8	41	66	80	55	82	76	77	69	69	67	73	92	60	58	81237/45690 FLK
9	42	46	80	42	98	120	76	97	74	97	107	109	63	75	287146 305/9 FLK
10	0	53	55	61	85	80	72	62	50	67	66	74	55	53	1283/674905 KLF
11	0	53	76	51	67	80	71	74	71	76	73	73	58	58	26478 35/190 FLK
12	41	50	80	51	95	106	89	97	84	97	110	119	81	70	872 461 3590/FKL
13	0	60	84	59	101	98	90	76	61	89	103	113	73	77	871236049/5 FLK
14	0	56	64	55	90	124	95	69	57	85	93	94	55	71	2387160/459FLK
15	0	50	76	49	93	99	76	69	63	73	91	80	60	64	217836/4059 FLK
16	0	70	53	77	70	75	71	74	45	59	69	69	70	47	243/197860 5KLF
17	4	47	55	64	93	84	91	86	67	59	83	78	52	53	134278/5609 KFL
18	0	63	73	64	82	77	71	64	51	53	56	73	60	56	1283/49706 5FKL
19	0	56	80	46	72	89	75	76	59	53	91	84	68	56	728431/9506 FLK
20	0	53	82	47	116	120	95	88	71	85	120	134	68	73	827134605/9FLK
21	0	63	62	57	87	122	80	74	48	52	97	87	53	70	2718 340/695LFK
22	0	66	66	66	77	68	78	57	55	56	66	84	58	61	831/2670945LFK
23	0	56	94	55	88	94	89	86	96	82	89	105	78	66	852371469/OFLK
24	0	53	60	66	80	70	65	55	57	47	64	69	63	46	12/83795460KFL
25	0	63	55	74	67	72	55	55	51	50	43	66	58	50	12/193456078KLF
Total	175	1477	1776	1493	2168	2283	2010	1812	1532	1729	2096	2155	1543	1590	
Mean	7	59.08	71.04	60	86.72	91.32	80.4	72.9	61.3	69.16	83.84	86.2	61.72	63.6	

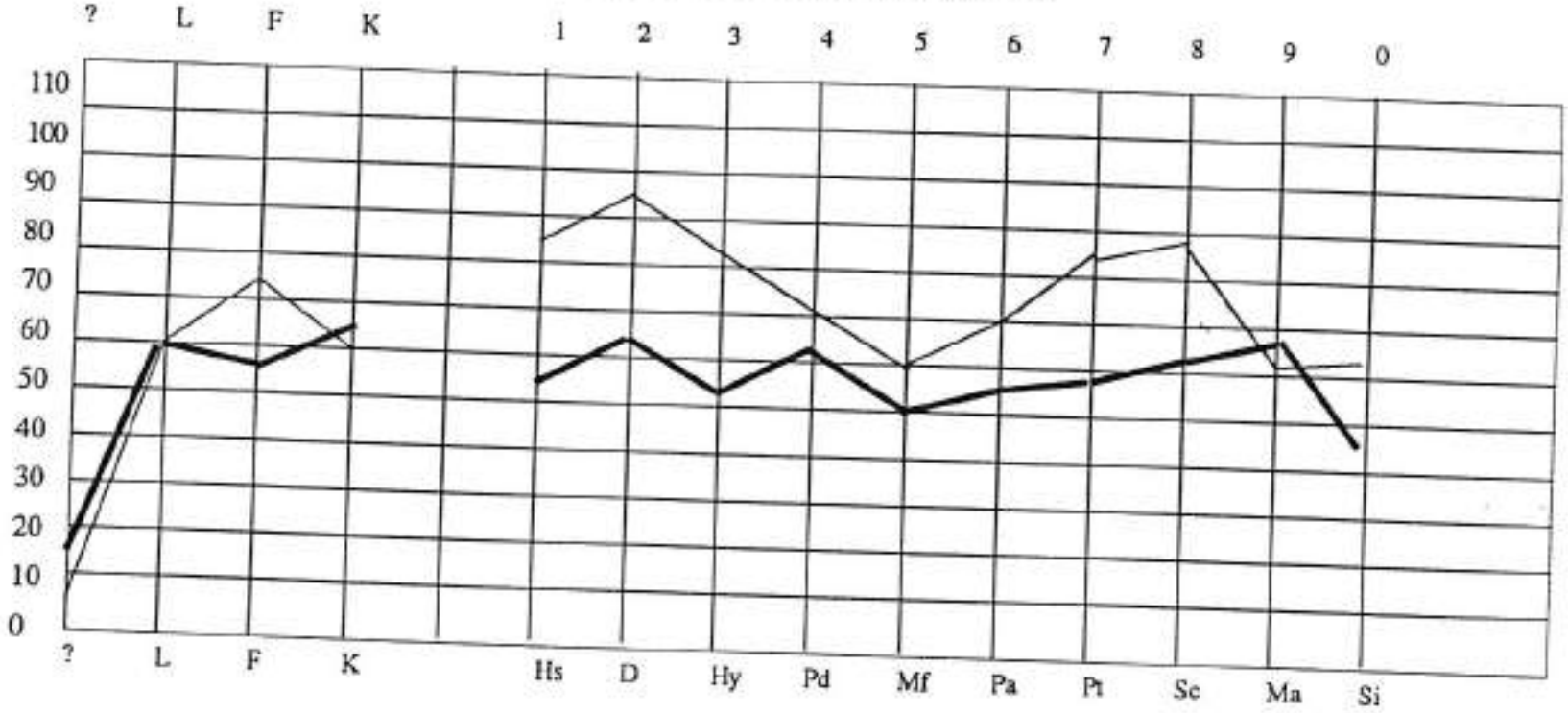
TABLE II
RESULTS OF THE MMPI SCALES FOR GROUP II

	?	L	F	K	1	2	3	4	5	6	7	8	9	0	Codes
1	0	56	88	64	62	80	58	53	59	91	87	121	53	75	86720/91534FKL
2	0	56	80	39	93	101	82	79	55	105	103	113	70	76	867213409/5FLK
3	0	53	80	49	72	84	83	88	67	97	107	125	88	73	876492301/5FLK
4	23	50	113	35	57	60	56	62	57	91	77	102	90	58	8697/420153FLK
5	0	50	80	51	100	108	78	95	57	108	116	119	78	81	872614093/5FKL
6	41	70	64	59	70	84	58	64	74	67	87	87	73	59	782591/6403LFK
7	0	53	90	32	80	108	71	67	63	100	93	109	58	83	8267013/459FLK
8	0	60	84	61	65	89	60	95	71	97	89	105	75	61	8642795/103FKL
9	0	56	104	59	85	94	75	88	67	79	89	113	86	58	82749163/50FKL
10	0	63	78	57	59	70	62	67	65	73	83	92	58	62	8762/453019FLK
11	0	63	80	61	62	70	60	76	55	72	77	90	75	60	876492/1305FLK
12	41	47	80	49	67	70	49	69	65	76	83	94	78	67	87962/41053FKL
13	0	63	110	47	99	110	84	79	57	98	97	130	75	75	821673490/5FLK
14	0	60	116	55	87	102	78	83	65	88	95	106	78	68	82761439/05FLK
15	0	47	98	43	80	99	69	71	51	73	93	109	83	67	8279164/305FLK
16	42	50	73	59	85	120	93	79	63	97	105	96	49	74	27683140/59FLK
17	0	42	125	33	59	68	53	64	67	108	77	120	98	58	8697/254103FLK
18	0	50	88	51	77	106	73	79	55	82	95	90	63	71	27864130/95FKL
19	0	60	114	47	85	100	78	79	67	106	107	144	73	75	876214309/5FLK
20	0	50	120	40	93	96	86	86	73	120	105	120	73	72	6872134590/FLK
21	0	56	85	59	90	89	82	76	69	91	95	115	65	67	8761234/509FKL
22	0	53	80	55	90	92	80	81	61	85	89	120	73	60	82176439/50FKL
23	0	43	80	41	57	96	65	65	59	67	83	82	55	69	278/0634519FLK
24	40	50	106	41	95	99	78	81	80	82	105	129	78	77	8721645390/FLK
25	0	53	84	41	77	113	71	62	55	91	97	103	63	77	2876103/945FLK
Total	187	1354	2300	1228	1926	2308	1772	1888	1577	2054	2334	2734	1818	1723	
Mean	7.84	54.16	92.0	49.12	77.04	92.03	70.48	75.52	63.1	90.16	93.36	109.36	72.72	68.89	

GRAPH I

GROUP I ——
NORMAL ━━

COMPARISON OF THE MMPI PROFILES OF GROUP I AND NORMAL SUBJECTS



GRAPH II

GROUP II
NORMAL

COMPARISON OF THE MMPI PROFILES OF GROUP II AND NORMAL SUBJECTS

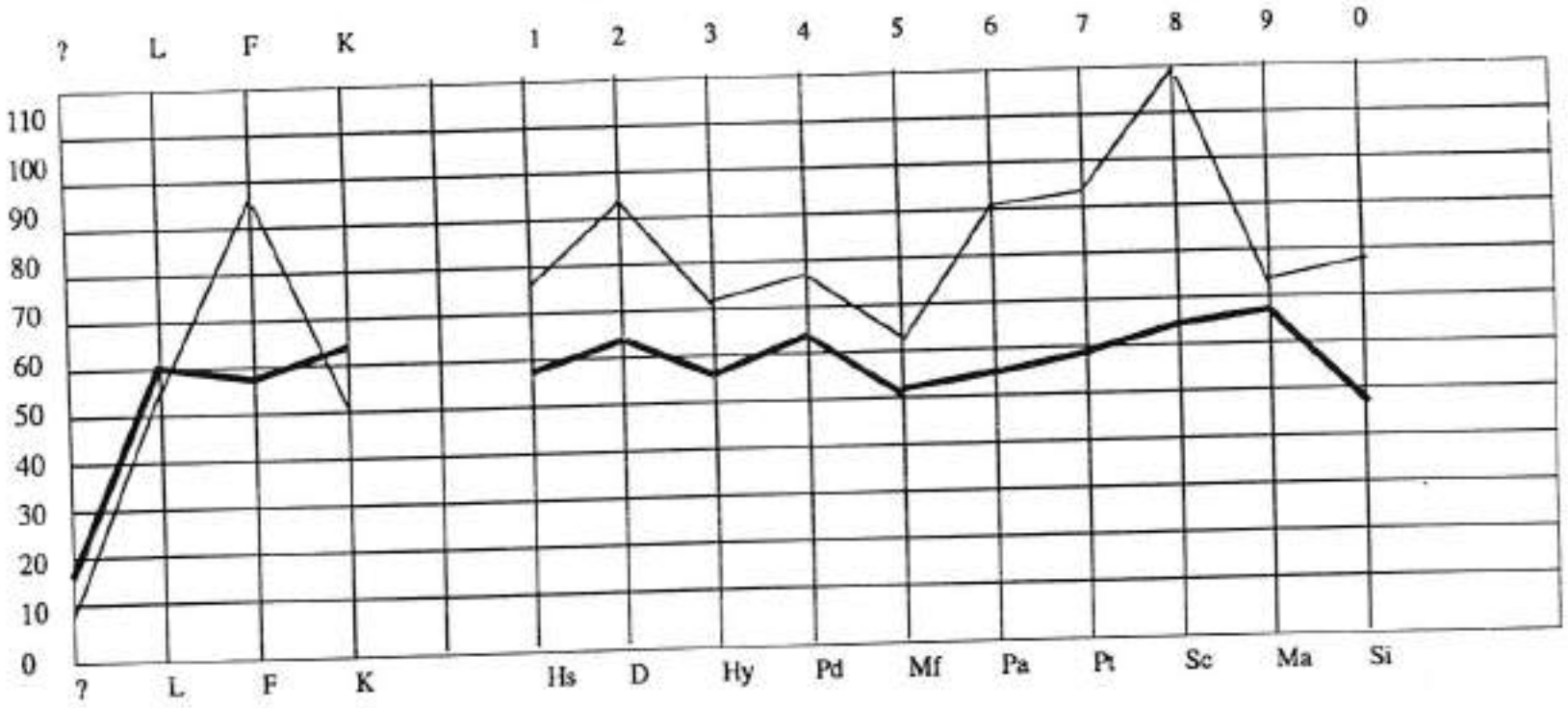


TABLE III

COMPARISON OF NEUROTIC SCALES OF GROUP I AND GROUP II

	Group I				Group II			
	1	2	3	Mean	1	2	3	Mean
1	98	96	82	92.00	62	80	58	66.66
2	85	75	75	78.33	93	102	82	92.00
3	108	100	104	104.00	72	84	73	76.33
4	97	102	94	97.66	57	60	56	57.66
5	87	77	82	82.00	100	108	78	95.33
6	70	77	76	74.33	70	84	58	70.66
7	80	101	82	87.66	80	108	71	86.33
8	82	77	76	78.33	65	89	69	71.33
9	98	120	76	98.00	85	94	75	84.66
10	85	80	72	79.00	59	70	62	77.00
11	67	80	71	72.66	62	70	60	64.00
12	95	106	89	96.66	67	70	49	62.00
13	101	98	90	96.33	99	110	84	97.66
14	90	124	95	103.00	87	102	78	89.00
15	93	99	76	89.33	80	99	69	82.66
16	70	75	71	72.00	85	120	93	99.33
17	93	84	91	89.33	59	68	53	60.00
18	82	77	71	76.66	77	106	73	85.33
19	72	89	75	78.66	85	100	78	87.66
20	116	120	95	110.33	93	96	86	91.66
21	87	122	80	96.33	90	89	82	87.00
22	77	68	78	74.33	90	92	80	87.33
23	88	94	89	90.33	57	96	65	72.66
24	80	70	65	71.66	95	99	78	90.66
25	67	72	55	64.66	77	113	71	87.00

Table III (continued)

Total = 2168	2283	2010	2153.58	1926	2308	1772	2024.91
Mean = 86.72	91.32	80.4	86.14	77.04	92.30	70.48	80.99

Difference between mean scores of both the groups on neurotic scales is significantly higher in Group I at t value of .025 level.

Neurotic triad on the average is higher in Group II subjects in 16% of cases.

Scale-2(D) is slightly higher in Group II which is not significant.

Scale-1(Hs) is elevated in both Groups but is significantly higher in Group I. t is significant at .005 level.

Scale-3(Hy) is elevated in both Groups but is significantly higher in Group I. t is significant at .005 level.

TABLE IV

COMPARISON OF PSYCHOTIC SCALES OF GROUP I AND GROUP II

	Group I				Group II			
	6	7	8	Mean	6	7	8	Mean
1	76	87	74	79.00	91	87	121	99.66
2	70	107	88	88.33	105	103	113	107.00
3	70	81	94	81.66	97	107	125	109.66
4	70	99	104	91.00	91	77	102	90.00
5	50	64	65	59.66	108	116	119	114.00
6	62	79	65	68.66	67	87	78	77.66
7	65	85	82	77.33	100	93	102	100.66

Table IV (continued)

8	67	93	92	84.00	97	89	105	97.00
9	97	107	109	104.33	97	89	113	99.66
10	67	66	74	69.00	73	83	92	82.66
11	76	73	73	74.00	82	77	90	83.00
12	97	110	119	108.66	76	83	94	84.33
13	88	103	113	101.33	98	97	130	108.33
14	85	93	94	90.66	88	95	106	96.33
15	73	91	80	81.33	73	93	109	91.66
16	59	69	69	65.66	97	105	96	99.33
17	59	83	78	77.33	108	77	120	101.66
18	53	56	73	60.66	82	95	90	89.00
19	53	91	84	76.00	106	107	144	119.00
20	85	120	134	113.00	120	105	120	115.00
21	62	97	87	82.00	91	95	115	100.33
22	66	66	84	72.00	85	89	120	98.00
23	82	89	105	92.00	67	83	82	77.33
24	47	64	69	60.00	82	105	129	105.33
25	50	43	46	46.33	91	97	103	97.00
Total =								
1729	2096	2155	1999.93		2254	2334	2734	2437.59
Mean =								
69.16	83.84	86.2	80.00		90.16	93.36	109.36	89.78

Difference between mean scores of both the groups on psychotic scales is significantly higher in Group II at t value of .01 level of significance.

Psychotic triad is, on the average, higher in 36% of cases in Group I.

Scale-8 (Sc) is elevated in both groups but is significantly higher in Group II. t is significant at .005 level.

Scale-7 (Pt) is elevated in both groups but is significantly higher in Group II. t is significant at .005 level.

The MMPI personality profiles of both groups are reflected in graphs in subsequent pages. Profile patterns are also compared with the normals in graphic forms.

DISCUSSION

This study was carried out with the object of finding out the contribution of the Minnesota Multiphasic Personality Inventory (MMPI) in the psychiatric diagnosis of neurosis and psychosis.

The subjects selected for this study were administered a battery of psychological tests including MMPI for psychometric evaluation. Scoring was done by a clinical psychologist but the final diagnosis was made by a consultant psychiatrist in the light of case history, structured interview and the social background of the person. The results thus obtained support the hypotheses and a significant difference is found between the mean scores of neurotics and psychotics on the neurotic and psychotic scales respectively, (Tables III & IV).

Mean scores of neurotics and psychotics are also compared with normal subjects in graphic forms (Graphs I & II) which indicate an obvious difference between the profile patterns of normals and the sick subjects conclusive of the presence of psychiatric disorders in the latter.

Main findings of this work are that Group I scores are higher on neurotic scales at t value of .025 level of significance. Similarly, Group II scores on the average are significantly higher on psychotic scales at t value of .01 level of significance.

However, mean score of neurotic triads is higher in 16% of cases in Group II and mean score of the pshchotic triads is seen to be higher in 36% cases of Group I.

Other important observations made on the results include elevated mean scores of scales 4, 7 and 8 in Group I; elevations on scales 1. 2, 3, 4 and 9 in Group II, and high validity scale F in both the groups but comparatively higher in Group II.

Scale 4 elevation in Group I stems probably from the concept that no sharp lines of distinction can be drawn between the psychopathic and neurotic reaction and that both have their roots in faulty development in early childhood. It may also be due to cultural differences.

Elevation on scale 7 in Group I reflects the common occurrence of psychasthenic symptoms in neurotics as well. On the whole, Group II scores higher on this scale at t value of .005 level of significance distinguishing psychotics from neurotics on this basis.

Scale 8 elevation in neurotics coincides with the findings of Mirza (1976) who found that peak score on scale 8 was not a prerogative of schizophrenics only as the normal population in Pakistan seemed to have an equal claim on it. Butcher and Pancheri (1976) stated, "It was obvious that the Pakistani population was somewhat more prone to admit having odd thoughts, feelings and behaviours than were their American counterparts". They further pointed out that on clinical scales it was noted that highest elevations occurred on scale 8 (Sc) for both males and females.

Group II, on the average, scores higher on this scale at t value of .005 level of significance clearly differentiating the personality differences of the two groups.

The occurrence of high scores on scale 1 in Group II points out to the possibility of hypochondriacal symptoms in many of the psychotics. Depressives in particular, in our culture, very often present with multiple somatic complaints with or without psychological symptoms. Some schizophrenics, too, at times present with hypochondriasis only. Group I, on the average, scores significantly higher at t value of .005 level of significance establishing a marker of distinction between neurotics and psychotics, on this scale.

Scale 2 is found to be slightly higher in Group II which is insignificant statistically. This peak could be due to the presence of cases of psychotic depression in Group II and/or concomitant depression and preservation of partial insight into the psychotic process. Moreover, the item overlap of scale 2 is about equal for neurotic scales and psychotic scales.

When the Urdu translation of the MMPI was administered to Pakistani subjects it was also found that they had a tendency to endorse items with bizarre and irrational thought content and depressive outlook. (Butcher and Pancheri, 1976).

An elevation on scale 3 in Group II indicates lack of sophistication as most of the studies have revealed. Although normals also tend to obtain elevated scores on this scale in Pakistan, it assumes a special significance in the case of schizophrenics. Whereas, people in the West react to stress with anxiety, in the East it very often takes the form of hysterical reaction (Mirza, 1976). However, neurotics have scored higher on scale 3 at t value of .005 level of significance indicating that hysterical symptoms were a feature of neurosis rather than psychosis.

High scoring on scale 4 in Group II is possible due to impaired insight in psychotics or because psychopathic deviation is a type of psychosis in its own right.

Scale 9 on the average is more than T score of 70 in Group II subjects. It is indeed a psychotic scale by itself and some workers believe in the psychotic tetrad (scales 6, 7, 8, 9) and not the psychotic triad (scales 6, 7, 8).

Elevated scores on validity scale F are another characteristic of the Pakistani population (Mirza, 1976), and as such are compatible with findings of other research studies.

In conclusion, it is worthwhile to remark that the MMPI is a successful instrument in the study of personality profiles for a variety of purposes despite its limitations. Finally it is suggested that further research on a larger sample may be carried out and significant changes in the score patterns of the MMPI be further related to psychiatric illnesses.

REFERENCES

Butcher J. N. and Pancheri, P. (1976). A Hand book of Cross-National MMPI Research. Minneapolis: The University of Minnesota Press.

Mirza, L. (1976). Multiple Administration of the MMPI with Schizophrenics. Paper presented in International Personality Assessment Symposium, Rome, Italy.

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CASE HISTORY AND TREATMENT OF A CASE OF REACTIVE DEPRESSION

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INTRODUCTION

Mr. Abid was a 40 year old man. He came to the author with the symptoms of acute depression. He refused to meet people, eat and look after his personal hygiene for the previous two months. He had been treated by various specialists including psychiatrists and neurophysicians but his condition persisted and showed no changes. He would also be fed physically by his old mother who was about eighty years of age at that time.

CASE HISTORY

Mr. Abid was number two in a family of five siblings but was the only son of the family with the result that he was treated like a king in the house. His father was a landlord in the interior of the province and respected by the entire community. His four sisters were married in the family and had not been given education beyond primary school. They were happily living with their husbands who were of the same status as the family of Mr. Abid.

Mr. Abid was married but did not have any children. He was educated and had even been sent abroad for his masters in agriculture. He however could not finish his masters degree due to the fact that he was very homesick and missed all the luxuries of home while he was abroad. His wife was his first cousin, daughter of a paternal uncle, and he was extremely fond of her because they had been engaged even before his wife was born. The idea of marriage to his wife had thus been embedded in his mind from the very beginning. When he came back from abroad he was about thirty five years of age and began to show some symptoms of depression. The family noted that he used to feel ashamed of the fact that he had

not finished his studies and hence felt that he could not be able to face his own people including his own farmers and people working under him. Although his father and family kept consoling him that it does not matter because he does not have to do service and they could even employ someone to do their work but he became withdrawn from social gatherings and could not face the failure. Even his wife tried her level best to console him but it was of no use.

The family noticed these symptoms and came to the conclusion that these symptoms would disappear if Mr. Abid would remarry and have children from a second wife. Hence he was pestered by his parents, friends, uncles, aunts and even sisters and brothers. His wife loved him very much and therefore joined the others and assured him that even if he would remarry she would still love him and continue to live with him for the rest of his life. She even assured him that she would participate in the wedding activity. Mr. Abid eventually succumbed to the pressure and became ready to marry a girl of the family's choice. The marriage was arranged to be held after a month but immediately after giving his consent he went into a deep state of depression and within one month's time he became totally withdrawn from society and even refused to eat and look after his personal life. He also began to show indifference to his wife. The family became very anxious and showed him to various doctors.

TREATMENT

Mr. Abid was sent to the author by one of her patients who had recovered and returned to the interior of the province. The whole family came to Karachi and the patient was admitted in a local clinic. Psychological tests could not be administered because he was totally noncooperative. The patient also began to be seen at the same time for psychotherapy and after about ten futile sessions the author suddenly made a big breakthrough. This happened when the author enquired into the sexual life of the patient and told him that she had asked the clinic to investigate as to whether he himself could have any children or not. The patient immediately reacted and told the author that he would not undergo such tests and refused to stay at the clinic. The author pacified the patient and agreed that she would not have him tested and that she would cooperate with him. She reassured him that all the information given by him would be kept in confidence and no one in the family or his home town would know about it. The patient agreed to talk about his problem. He reported that

when he was abroad he was also worried about the fact that he had no children and went for a checkup and it had come to light that there was no hope of him having any children because his case was totally incurable. He also offered money but the doctors refused to take the case so it was not the homesickness that caused him to prematurely return but the fact that he felt depressed and dejected after he came to know about his illness or deficiency. Hence as the day of his remarriage was coming closer he had become increasingly depressed.

The author gave him the assurance that everything would be kept secret from his family and friends and that the marriage would be cancelled as he himself does not want to remarry. Also, since he had taken the fact of his inability to have any children so bitterly he was told that he had to undergo psychotherapy for six months. He agreed to live in Karachi with his wife for the treatment. The author then called the parents to her office and talked to them about his second marriage and told them that their son was very fond of his first wife and did not want to remarry and that it would be good for his mental health to stay with his wife peacefully. It was also suggested that it could be possible for him to adopt his sister's son who can in turn be married to his first cousin's daughter. The family had no objection, agreed to this, and went back to the village leaving their son and his wife behind with one of their servants.

After six month's intensive psychotherapy with both the patient and his wife, the patient agreed to adopt the daughter of his sister but did not agree to adopt a son. He came out of his depression after ten sessions and began to look after himself. But he continued to have the pangs of depression because he knew that he would not be able to have his own children. After six months of psychotherapy with intensive working through, he gained insight into the fact that there are many people like him who cannot have children but live happily in this world. He went back to his village, adopted the daughter of his sister, and used to come to the author every month for consultation because he felt that he needed to give vent to his feelings to a person who will keep everything in confidence. The patient kept coming regularly every month for about two years and then the sessions automatically tapered off as the daughter used to demand time from him. He is happy now. His daughter goes to school and he has also been looking after the affairs of the estate since the death of his father. But he keeps on calling the author on the phone, on and off, just to express his gratitude.

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BIRTH ORDER AND LEVEL OF ANXIETY AND DEPRESSION IN NEUROTIC PATIENTS

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ABSTRACT

The present study was aimed at determining the effect of birth order on the level of anxiety and depression of neurotic patients. A total of 15 female and 34 male patients coming to the Institute of Clinical Psychology, to whom IPAT Anxiety and Depression Scales were administered for the purpose of diagnosis, served as the sample for the present study. An analysis of variance was run and insignificant difference in the level of anxiety was found among the first, intermediate and last born patients ($F = 2.35$ $p > .05$). Significant difference in the level of depression was found among the first, intermediate and last born patients ($F = 4.45, p < .05$). Mann Whitney z test showed statistically significant difference between first and intermediate borns (Mann - Whitney $z = 1.72$, $p = .0427$), first and last borns (Mann - Whitney $z = 2.49$, $p = .0064$), and intermediate and last borns (Mann - Whitney $z = 1.60$, $p = .0548$).

INTRODUCTION

Scientific interest in the effect of ordinal position on personality began with Freud (1953-62) who claimed that " the person's position in the sequence of

brothers and sisters is of very great significance for the course of his later life." Adler (1930) emphasized that each position provides a predictable personality pattern, with that of the middle and last child more favourable than that of the first born. Rank (1929) likewise emphasized that the last born has a more favourable position, as far as personality is concerned than the first born.

Scientific studies have shown what effects ordinal position has on personality.

According to Haeberle (1958) and Schachter(1959), the first born subjects were found more dependent than later borns. Ehrlich (1968) demonstrated that first born subjects tended to be more influenceable than later borns. These findings were further supported by the researches conducted by Capra and Dittes (1962), Staples and Walters (1961), Becker and Carroll (1962), Strauss (1951), Carmischooler (1964) and Farooqi (1981).

Several other studies reveal that first borns tend to be more conforming and dependent than later borns; they are more affiliative, especially in stress situations, they are more susceptible to group pressures and more withdrawn and introverted; they have less frustration tolerance and are prone to angry outbursts; they are more fearful of pain and frightening situations; and they are often anxiety-ridden because they are afraid of not being able to live up to adult expectations (Becker, Lerner and Carroll 1966, Carrigan and Julian 1966, Conners 1963, Hall and Barger 1964, Schmuck 1963, Weller 1964).

In another study Schachter (1964) found that first borns and only children are more dependent on the approval of others and more easily influenced than are later born children (Sampson and Handcock, 1967).

In a prize winning doctoral thesis Hilton (1967), showed that first born 4 year olds were more dependent upon their mothers than later borns. Kinsolving and Bone (1971) investigated the effects of birth order and sex on field-dependency as measured by the Rod and Frame Test. Results showed a significant interaction between birth and sex. Reighard and Johnson (1973) also showed significant sex and birth order effects. Males were found to be less field-dependent than females.

Also first borns were less field dependent than both only children and later borns. Mehrabian and Ksionzky (1970) and Warren (1966) found that first borns of both sexes are more susceptible to social pressure and are more dependent than later borns, and when anxious, first born women seek out the company of others more strongly than do later born women.

First borns who achieve greater success than their later-born siblings tend to be bossy, selfish, self centered and spoiled. Reports of sex differences in personality due to ordinal position indicate that first born girls tend to be more bossy at home, while second-borns are more bossy at play (Sutton-Smith 1968).

Insecurity, is a common characteristic of first borns is shown by the fact that they tend to marry earlier than their later born siblings as a way of reducing anxiety and overcoming the feelings of insecurity they have carried with them from childhood (Altus 1966, Nisbett 1968, Sampson and Hancock 1967, Smith and Goodchild 1963, Warren 1966, Zucker, Manosevitz and Lanyon 1968).

In addition, first born girls are more aggressive toward adults than later-born girls and more defiant of adult authority; they demand more attention; and they are comparatively overactive, irritable, tense and somewhat shy in the presence of strangers. They have more problems at all ages than do later-borns (Koch 1960, Schmuck 1963).

There are numerous other empirical relationships which has been found in the birth order area. Busemann, 1928; Goodenough and Leahy, 1927; Hillinger, 1958 found that only children and first borns have been reported to be more introverted than later borns. Zimbardo and Formica (1963) found male undergraduate first borns to be lower in self-esteem, but no such differences were found by Stotland and Dunn (1962) who used both male and female undergraduate students as subjects. Moran (1967), using a sample of 349 college students found first borns to manifest higher need for approval as measured by the Marlowe-Crowne Social Desirability Scale. MacDonald (1971) found that : (a) later borns from two child families were more external than those from larger families, (b) later borns from two-child families were more external than only children or first borns from two child families (c) only children and first borns were more socially

responsible than later borns, (d) first borns were more rigid than only-child and later born subjects; and only-female subjects manifested higher need for approval than only males.

Some of the more interesting studies of birth order effects published include one showing that first borns might be expected to excel, be more peer-oriented, and be more popular (McArthur, 1956). Sociometric choices obtained by Sells and Roff (1964) are consistent with the belief that later borns are more popular than first borns. Sampson (1965), showed the first born, especially the first born male to be more adult oriented than his later born sibling. With regard to preferences for polygons varying in complexity-simplicity, it has been found that first born males and later-born females tend to prefer more complexity than later-born males and first born females, who are more likely to prefer simplicity (Eisenman, 1967a, 1967b). A somewhat different finding was obtained by Eisenman (1968) whose later born subjects generally preferred more complexity than first born subjects, regardless of sex. Both first borns (Capra and Dittes 1962; Wolf and Weiss 1965) and approval dependent subjects (Mc David, 1965) volunteer more often for psychology experiments. Nisett (1968) showed that first borns are less inclined than later borns to participate in such dangerous sports as football, rugby and soccer. Zucker, Menosevitz, and Lanyon, 1968 demonstrated that during the New York city black-out in November, 1965, stranded first born males were more anxious than stranded later borns.

A few negative findings have found their way into the literature. Singer (1964) reported no difference between first born and later born males on the Mach V Scale, a measure of interpersonal manipulation. Additionally, using the California F Scale (Greenberg, Guerino, Lashen, Mayer, and Pickowski, 1963; Stotland and Dunn, 1962), no differences were found between first born and later born persons in authoritarianism.

Culver and Dunham (1969) administered four tests of spatial perceptual ability including the Rod and Frame Test to a large number of student nurses and failed to find a significant relationship between birth order and dependency. Simon and Wilde (1971) conducted experiments on first-born and later-born undergraduates. Contrary to their predictions no differences were found. Similarly

Imam (1980) investigated the effects of three birth order categories on the extent of field dependence. Contrary to expectations, no significant relationship was found between birth order and field dependence.

There are also a number of studies which deal with sibling order and mental disorders. DeLint (1964) maintains that last borns tend to be alcholics because parental deprivation is more likely for this group. Schooler (1961) reported that there is a significantly higher rate of schizophrenia among the last born of four or more sibling families. Ahmad (1968) in her study on family and mental disorders in Pakistan showed that most psychotics were eldest children and most neurotics came from any other rank or were the youngest or the only children.

Granville - Grossman (1966) used the Greenwood-Yule method to investigate birth order; the later birth ranks and last born position were found to be over represented among a group of 562 male schizophrenics. No association between birth order and schizophrenia was found in a group of 682 females. It was concluded that there is a causal relationship between birth order and schizophrenia in males.

A number of studies have found the first born position to be prominent in various hysteria related conditions. Ziegler et al. (1960), in a study of 100 patients with a diagnosis of conversion reaction, found a significantly higher percentage of patients in the first born position. Stephens and Kamp (1962), in a study of 100 patients with hysteria like disorders found that 30% of the patients studied were first born or only children. Morrison (1983) studied patients meeting the DSM-III criteria for somatization disorder and a control group from his clinical practice to show significantly earlier birth order positions for women with somatization disorder.

However, other studies have shown a normally distributed birth order, Ljungberg (1957), in a study of 380 "hysterical persons", found no difference in sibling position. Roy (1979), in a study of 31 patients meeting the ICD-8 criteria for hysterical neurosis and 31 with depressive neurosis, found no significant difference in sibling position between patients in the two groups. A study by Tsuang (1966) showed that birth order position was not significant. For 34

women meeting the ICD-7 criteria for hysteria, Wilson-Barnett and Trimble (1985), using patients with a clinical diagnosis of hysteria and two control groups did not find differences in birth order. Brown and Smith (1989) in their study found that birth order position was not associated with the diagnosis of somatization disorder and that sibship position in both groups occurred by chance.

Although much research in the area of birth orders and personality or mental health has been conducted, but the findings have been inconsistent. The present study attempts to explore whether and the extent to which the level of anxiety and depression in neurotic patients is related to the birth order. This study is the first study of its kind on Pakistani neurotic patients.

METHOD

Sample

Adults, neurotic patients to whom the IPAT Anxiety Scale and the IPAT Depression Scale were administered for the purpose of assessment in the Institute of Clinical Psychology, University of Karachi, served as subjects. These patients were registered for psychotherapy between January 1985 and December 1991.

A total of 49 patients were selected for the study which included 34 males and 15 females, their ages ranging from 18 to 50 years.

Statistics

The statistical test of analysis of variance was applied in order to compare the levels of anxiety and depression of 3 groups i.e. first, intermediate and last borns. In the case of analysis of variance yielding significant results it was also decided to apply the Mann - Whitney Z test to inquire into the level of significant difference between each pair of sample means.

RESULTS

TABLE-I

MEAN ANXIETY AND DEPRESSION SCORES OF FIRST, INTERMEDIATE AND LAST BORN NEUROTIC PATIENTS

	Anxiety	Depression
First Born	36.45	32.27
Intermediate Born	42.56	40.80
Last Born	46.30	47.15

TABLE-II

ANALYSIS OF VARIANCE OF ANXIETY SCORES FOR THE THREE ORDINAL POSITIONS

Source of Variance	Sum of Squares	df	Mean of Squares	F	P
Between Groups	585.69	2	292.85	2.35	p>.05
Within Groups	5741.66	46	124.82		

TABLE-III

ANALYSIS OF VARIANCE OF DEPRESSION SCORES FOR THE THREE ORDINAL POSITIONS

Source of Variance	Sum of Squares	df	Mean of Squares	F	P
Between Groups	1322.13	2	661.07	4.45	p<.05
Within Groups	6827.87	46	148.43		

TABLE-IV

MANN-WHITNEY Z TEST BETWEEN GROUPS FOR COMPARISON BETWEEN THE LEVEL OF DEPRESSION

Groups Compared	Z	Level of Significance
First Vs Last Born	2.49	p= .0064
First Vs Intermediate	1.72	p= .0427
Intermediate Vs Last	1.60	p= .0548

DISCUSSION

The analysis of variance as shown in Table II indicates that there is statistically insignificant difference in the level of anxiety among first, intermediate and last born neurotic patients ($F = 2.35$, $p>.05$), whereas Table III indicates that there is a statistically significant difference in the level of depression among first, intermediate and last born neurotic patients ($F = 4.45$, $p < .05$).

The Mann-Whitney test shows that the result (Table IV) is statistically more significant when the comparison of the level of depression is between first and last born neurotic patients (Mann-Whitney $z = 2.49$, $p = .0064$), as compared to the level of depression between first and intermediate born neurotic patients (Mann-Whitney $z = 1.72$, $p = .0427$), and the level of depression between intermediate and last born neurotic patients (Mann-Whitney $z = 1.60$, $p = .0548$).

From the above results one can conclude that when the last borns become depressed, their level of depression is more ($\bar{X} = 47.15$) as compared to both first ($\bar{X} = 32.27$)and intermediate borns ($\bar{X} = 40.80$). Intermediate born patients tend to get significantly more depressed than first borns, and first borns were found to be least depressed compared to neurotics of all other ordinal positions.

The insignificant difference in the level of anxiety among the first, intermediate and last born neurotic patients is difficult to understand, because the study by Ahmad and Munaf (1991) showed the scores of anxiety and depression measures are highly correlated. Further research on a larger sample would help to throw more light on the findings of the present study.

REFERENCES

Adler, A. (1930). The Education of Children. New York: Greenberg, 1930.

Ahmad, F.Z. (1968). Family and mental disorders in Pakistan. The International Journal of Social Psychiatry, 14, 4, 290-295.

Ahmad, F.Z., & Munaf, S. (1991). The relationship between anxiety and depression. Pakistan Journal of Psychology, 22, 15-25.

Altus, W.D. (1966) Birth order and its sequelae. Science, 151: 1, 44-49.

Becker, S.W., & Caroll, J. (1962). Ordinal Position and conformity. Journal of Abnormal and Social Psychology, 65, 129-131.

Becker, S.W., Lerner, M.J., and Caroll, J. (1966). Conformity as a function of birth order and type of group pressure. Journal of Personality and Social Psychology, 3, 242-244.

Brown, F.W., and Smith, G.R., Jr. (1989). Birth order of patients with DSM-III-R Somatization disorder. American Journal of Psychiatry, 146: 9, 1193-1196.

Busemann, A (1928). Geschwisterschaft, schultüchtigkeit und charakter. Zeitschrift fur Kinderforschung mit Besenderer Berucksichtigung der Pädagogischen Pathologie, 34, 1-52.

Capra, P.C., & Dittes, J.E. (1962),. Birth order as a selective factor among volunteer subjects. Journal of Abnormal and Social Psychology, 64, 302.

Carmischooler (1964). Birth order and hospitalization for schizophrenia. Journal of Abnormal and Social Psychology, 67.

Carrigan, W.C., & Julian, J.W. (1966). Sex and birth-order differences in conformity as a function of need affiliation arousal. Journal of Personality and Social Psychology. 1966, 3, 479-483.

Conners, C.K. (1963). Birth order and need for affiliation. Journal of Personality, 31, 408-416.

Culver, C.M., & Dunham, F. (1969). Birth order and spatial-perceptual ability: Negative note. Perceptual Motor skills, 28(1), 301-302.

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REFERENCES

Adler, A. (1930). The Education of Children. New York: Greenberg, 1930.

Ahmad, F.Z. (1968). Family and mental disorders in Pakistan. The International Journal of Social Psychiatry, 14, 4, 290-295.

Ahmad, F.Z., & Munaf, S. (1991). The relationship between anxiety and depression. Pakistan Journal of Psychology, 22, 15-25.

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Becker, S.W., & Caroll, J. (1962). Ordinal Position and conformity. Journal of Abnormal and Social Psychology, 65, 129-131.

Becker, S.W., Lerner, M.J., and Caroll, J. (1966). Conformity as a function of birth order and type of group pressure. Journal of Personality and Social Psychology, 3, 242-244.

Brown, F.W., and Smith, G.R., Jr. (1989). Birth order of patients with DSM-III-R Somatization disorder. American Journal of Psychiatry, 146: 9, 1193-1196.

Busemann, A (1928). Geschwisterschaft, schultüchtigkeit und charakter. Zeitschrift fur Kinderforschung mit Besenderer Berucksichtigung der Pädagogischen Pathologie, 34, 1-52.

Capra, P.C., & Dittes, J.E. (1962),. Birth order as a selective factor among volunteer subjects. Journal of Abnormal and Social Psychology, 64, 302.

Carmischooler (1964). Birth order and hospitalization for schizophrenia. Journal of Abnormal and Social Psychology, 67.

Carrigan, W.C., & Julian, J.W. (1966). Sex and birth-order differences in conformity as a function of need affiliation arousal. Journal of Personality and Social Psychology. 1966, 3, 479-483.

Conners, C.K. (1963). Birth order and need for affiliation. Journal of Personality, 31, 408-416.

Culver, C.M., & Dunham, F. (1969). Birth order and spatial-perceptual ability: Negative note. Perceptual Motor skills, 28(1), 301-302.

DeLint, J.E.E. (1964). Alcoholism, birth rank and parental deprivation. American Journal of Psychiatry, 120, 1062-65.

Ehrich, D. (1968). Determinants of verbal commonality and influencibility. Unpublished doctoral dissertation. University of Minnesota.

Eisenman, R. (1967a). Birth order and sex differences in aesthetic preference for complexity-simplicity. Journal of General Psychology, 77, 121-126.

Eisenman, R. (1967b). Complexity-Simplicity:11. Brith order and sex differences. Psychonomic Science, 8, 171-172.

Eisenman, R. (1968). Personality and demography in complexity - simplicity. Journal of Consulting and Clinical Psychology, 32, 140-143.

Farooqi, Y.N. (1981). Birth order and temperament. Journal of Scientific Research. Punjab University.

Freud, S. (1953-1962). The standard edition of the complete psychological works of Sigmund Freud. London: Hogarth.

Goodenough, F.L. , & Leahy, A.M. (1927). The effect of certain family relationships upon the development of personality. Journal of Genetic Psychology, 34, 45-72.

Granville-Grossman, K.L. (1966). Birth order and schizophrenia. British Journal of Psychiatry, 112, 1119-1126.

Greenberg, H., Guerino, R., Lashen, M., Mayer, D., & Piskowski, D. (1963). Order of birth as a determinant of personality and attitudinal characteristics. Journal of Social Psychology, 60, 221-230.

Haebele, A. (1958). Interactions of sex, birth order and dependency with behaviour problems and symptoms in emotionally disturbed preschool children. Paper read at Eastern Psychological Association, Philadelphia.

Hall, E., and Barger B, (1964). Attitudinal structures of older and younger siblings. Journal of Individual Psychology, 20, 59-68.

Hillinger, F. (1958). Introversion und Stellung in dergeschisterreihe. Zeitschrift fur Experimentelle und Angewandte Psychologie, 5, 268-276.

Hilton, 1, (1967). Differences in the behaviour of mothers toward first and laterborn children. Journal of Personality and Social Psychology, 7, 282-290.

Imam, A. (1980) . Birth order and field dependence. Pakistan Journal of Psychology, 13, 23-31.

Kinsolving, D.L., & Bone, R.N. (1971). First borns, only children, sex and field independence. Psychological Reports, 29(1) 126.

Koch, H.L. (1960). The relation of certain formal attributes of siblings to attitudes held toward each other and toward their parents. Monograph of Social Research.

Ljungberg, I. (1957). Hysteria: birth order. Acta Psychiatr. Second (Suppl), 32: 105-106.

Mac Donald, A.P., Jr. (1971). Birth order and personality. Journal of Consulting and Clinical Psychology, Vol. 36, No.2, 171-176.

McArthur, C. (1956). Personalities of first and second children. Psychiatry, 19, 47-54.

McDavid, J.W. (1965). Approval seeking motivation and the volunteer subject. Journal of Personality and Social Psychology.

Mehrabian, A., and Ksionsky, S. (1970). Models for affiliative and conformity behaviour. Psychological Bulletin, 74, 110-126.

Moran, G. (1967). Ordinal position and approval motivation. Journal of Consulting Psychlogy, 31, 319-320.

Morrison, Jr. (1983). Early birth order in Briquet's syndrome. American Journal of Psychiatry, 140, 1596-1598.

Nisbett, R.E. (1968). Birth order and participation in dangerous sports. Journal of Personality and Social Psychology, 8, 351-353.

Rank, O. (1929). The Trauma of Birth. London: Routledge.

Reighard, P.B. & Johnson, D.T. (1973). Effects of birth order and sex on field-independence - dependence. Perceptual Motor Skills, 37 (1), 223-226.

Roy, A. (1979). Hysteria: a case note study. Canadian Journal of Psychiatry, 24: 157-160.

Sampson, E.E. (1965). The study of ordinal position: Antecedents and outcomes. In B.A. Maher (Ed.), Progress in Experimental Personality Research. Vol. 2. New York: Academic Press.

Sampson, E.E., and Hancock, F.T. (1967). An examination of the relationship between ordinal position, personality, and conformity. Journal of Personality and Social Psychology, 5, 398-407.

Schacter, S. (1959). The Psychology of Affiliation. Stanford. Stanford University Press.

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URDU ADAPTATION AND STANDARDIZATION OF IRRATIONAL BELIEFS TEST ON PAKISTANI POPULATION AND DEVELOPMENT OF NORMS FOR PSYCHIATRIC, DRUG ADDICT AND NORMAL POPULATIONS

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ABSTRACT

A strong need was felt to have a valid and a reliable assessment tool for Rational Emotive Therapy (RET) practitioners and researchers in Pakistan to assess irrational beliefs. In the present study, Jones's Irrational Belief Test (IBT), 1968, was indigenized in order to use it effectively with Pakistani population. The sample consisted of 44 psychiatric patients, 33 heroin addicts, 98 college students and 65 volunteers. To check the validity of IBT (Urdu Version), t-test was computed between MAS scores and AO-6 scale of IBT; and between ABS and full scale IBT scores. The reliability was found by using test-retest method. Results showed that IBT (Urdu Version) was a reliable and a valid instrument.

INTRODUCTION

Ellis (1962, 1973) has pointed out the fact that the family and other institutions of a culture directly or indirectly indoctrinate individuals with values and beliefs which are neither consistent nor sensible. Many sociologists and anthropologists have documented this introjection of culture values (Frazer, 1959; Hoffer, 1951, 1955; Rokeach, 1960; Tabori, 1959), and this source of an individual's beliefs and

values is now widely recognized (Cuber, Harper and Kenkel, 1956; Labarre, 1955). A number of tests have been devised which assess the specific irrational beliefs outlined by Ellis (1962) such as : Self Rating Scale by Bard (1973); Adult Irrational Ideas Inventory by Fox and Davis(1971); Test of Irrational Ideas by Laughnridge, (1975); Rational Behaviour Inventory by Shorkey and Whiteman (1977); Personal Belief Inventory by Hartman (1968); Common Trait Scale by Maultsby (1974); Attitude and Belief Scale (ABS) by Digiuseppe,(1986); Survey of Personal Belief by Kassinove and Beger (1982) and Irrational Belief Test (IBT) by Jones (1968).

Of the above, the IBT is the most systemically developed scale. It can be used for the assessment, evaluation and treatment planning phases of cognitive restructuring of therapy. Studies by Woods, 1984 a, 1988; Wicker et al, 1985; have also demonstrated its clinical utility. Jones (1968) regards IBT as a non-offensive and non-threatening test. It is intelligible, easily explainable to the subjects and helps to see the progress in therapy objectively. Like other clinical instruments it provides an economical and simple short cut to greater understanding of the nature of a patient's problems.

IBT consists of 100 items measuring ten irrational beliefs in separate scales, all of them validated against orthogonal factors. It contains ten sub-scales, each representing agreement with an irrational belief drawn from Ellis's Rational Emotive Therapy (RET)(Jones, 1968). The following substests are included in the test: demand for approval (DA-1); high self expectations (HSE-2); blame proneness (BP-3); frustration reactive (FR-4); emotional irresponsibility (EI-5); anxious overconcern (AO-6); problem avoidance (PA-7); dependency (D-8); helplessness for change (HC-9); and perfectionism (P-10). IBT is constructed to measure these beliefs using factor structure criteria. The instrument is also validated against indices of personality and maladjustment.

A survey of the literature reveals that IBT has been successfully used in a number of studies in the assessment and identification of irrational beliefs e.g. for investigating the relationship of contemplation of suicide to irrational beliefs (Woods, 1988); reduction in Type A behaviour: anxiety, anger and physical illness as related to change in irrational relationship between irrational beliefs

(Woods, 1987). Woods (1984b) found a significant relationship between irrational beliefs in IBT and physical symptoms of illness. Many other studies have also revealed an association between IBT scales and psychopathology (Kassinove, 1986; Thyer, Miller and Papsdorf, 1982; and Wicker, Richardson and Lambert, 1985). Woods (1984) obtained markedly different profiles on Jones's IBT for different groups of subjects and these differences were clearly interpretable. On all the sub-scales except Problem Avoidance (PA), the scores for mental health professionals was found to be significantly lower or more rational than the other two groups: clients in psychotherapy and women college students. The generecal picture supports Jones' IBT as a good measure for investigating irrational beliefs. Construct validities of IBT were found in the cross validation sample ranging from 0.561 to 0.824 with a mean of 0.699. Woods (1984) found IBT a valid instrument and encouraged its use in research and clinical practice. Results of a number of other researches on Jones's IBT have also shown it to be a valid instrument (Wicker, Richardson & Lambert, 1985; Woods, 1987). Homogeneity reliability co-efficients for the ten item scales were found to range from 0.662 to 0.801 with a mean of 0.737, based on inter-correlations of item scores and scale scores. Stability based on 24 hours test-retest correlations of scores was 0.921 for the full scale and ranging from 0.675 to 0.872 for individual scales.

The present study was undertaken to translate the IBT into Urdu and to standardize it on a Pakistani population for the following reasons: (i) There was a strong need to do research to find out the effects of irrational beliefs on emotional disturbances and to find the utility of RET principles within the Pakistani population. Rahman and Hussain (1991) conducted a study on Pakistani population and found a direct relationship between cognitions and emotional distress. RET principles have been revealed effective in a number of other studies (Mass and Heimann, 1974; Woods, 1984, 1987, 1988, Barker, 1966; Jarmon, 1973; Solomon & Ray, 1984). (ii) There was no other instrument available for RET practioners and researchers in Pakistan to assess the irrational beliefs (Ellis, 1962). (iii) It was dificult for people to comprehend, understand and conceptualize the meaning of a test in a foreign language. Also the nature and extent of irrational beliefs may vary from culture to culture. According to Cattell (1962), people belonging to different cultures differ in their personality expressions. Consequently, there was a strong need to have a standardized test measuring irrational beliefs of Pakistani

population in their national language.

In the present project, an attempt was thus made to translate and standardize IBT on Pakistani population and to develop local norms. The following research hypotheses were formulated:

a) There would be a significant positive functional realtionship between Manifest Anxiety Scale (MAS) scores and the Anxious Overconcern (AO) Scale on the IBT.

b) There would be a significant positive functional relationship between the Attitude and Belief Scale (ABS) and Total Scores of IBT.

METHOD

Subjects

The following four groups of subjects were included in the sample:

Group I: Included 44 psychiatric patients (33 males and 11 females), ages ranging from 19-34 years. Most of the patients had completed Class 10 (High School) or above, only six of them had studied upto less than Class 10.

Group II: Included 33 male heroin addicts, ages ranging from 19-39 years. The educational level of drug addicts was less than Class 10 (High School).

Group III: Included 98 college students (49 males and 49 females), who were studying for their B.A. with an elective subject of psychology. The age range was 18-21 years.

Group IV: Included 65 volunteers (28 males and 37 females) from the general adult population. Their ages ranged from 21 to 41 years and minimum education was B.A.

Instruments

In addition to the Urdu Version of Jones's IBT, the following instruments were used:

(a) Manifest Anxiety Scale (MAS). It was developed by Taylor (1951), to select experimental subjects with high and low drive (anxiety) level in order to study the effects of anxiety level on performance in a number of experimental situations. The 50 items in the MAS cover a rather wide variety of behaviours. Whereas, many of the items clearly deal with overt signs of anxiety (e.g. sweating, blushing, etc), other items contain subjective reports of feeling nervous, tension, anxiety, etc. There are also many items that identify somatic complaints (e.g. nausea, headaches, etc), others deal with difficulties in concentration and feelings of excitement and restlessness. Some items assess lack of self confidence, extreme sensitivity to the reactions of other people and feelings of unhappiness and uselessness. The items are keyed in such a way that higher scores are indicative of greater anxiety.

MAS was translated into Urdu and standardized on a Pakistani population by Farooqi and Shujaat (1981). Split-half reliability of Urdu version was 0.84, and 0.87 for the English version. Correlation between the Urdu and the English versions was 0.75.

In the present study, Urdu version of MAS was used. As Anxious - Overconcern Scale (AO-6) of IBT also measures anxiety, MAS (Urdu-Version) was administered to check the validity of AO-6 scale of IBT.

(b) Attitude and Belief Scale (ABS). It was developed by Digiuseppe in 1986. The test consists of 75 items which measure irrational beliefs as proposed by Ellis (1962). It has seven subscales: approval, achievement, comfort demanding, awfulization, self-rating and low frustration tolerance (LFT). Each item is processed in terms of the following three categories: irrational/ rational (I/R), content (comfort, approval, achievement) and process (LFT, rating, awfulizing, demanding). Each item of the content category is paired with each item of the process category.

Both ABS and IBT measure irrational beliefs as proposed by Ellis (1962). ABS was administered in the present study to check the validity of IBT.

Procedure

Initially the IBT (English version) was translated into Urdu by five persons whose minimum qualification was M.Sc. in psychology. The translated items were then ranked on a ten point scale. Any item with a ranking of 8 and above was selected and items ranking below were retranslated until they also met the same criteria (ranking of 8 or above). The Urdu version was back translated into English by another group of experts whose minimum qualification was M.Sc. in psychology. These English items were again ranked on a 10 point scale following the earlier procedure in terms of their closeness to the original IBT items. In this way, Urdu version of IBT was developed consisting of the items which met the above criteria.

Group III was administered the MAS, ABS & IBT in a group whereas the other three groups (Group I, Group II & Group IV) were administered the same tests but individually.

Test-retest reliability of IBT was found on 70 college students. Concurrent validity of IBT (Urdu version) was investigated by computing correlation co-efficients between total scores on IBT and ABS and between AO-6 Scale of IBT and MAS Subtest Score. To find the difference in IBT scores between the normal group and the psychiatric patients, all the IBT scores of the two groups were compared. T-test was used to see the relationship between MAS scores and AO-6 scale of IBT; as well as between ABS and IBT scores.

RESULTS

Results revealed positive relationship between MAS scores and AO-6 scale of IBT. The correlation co-efficient between the two tests was 0.6234 which supported hypothesis No. 1. (Table I). Correlation co-efficient between ABS and IBT scores was found to be 0.5426 which supported hypothesis No. 2. (Table II).

TABLE - I

MEANS OF MANIFEST ANXIETY SCALE (MAS) SCORE AND ANXIOUS OVERCONCERN (AO) SCALE OF IBT AND PRODUCT MOMENT CORRELATIONS BETWEEN THE TWO

N = 240

	Mean	Correlation
MAS	19.71	0.6234
AO	31.92	

TABLE - II

MEANS OF IBT AND ABS SCORES AND PRODUCT MOMENT CORRELATIONS BETWEEN THE TOTAL SCORES OF THE TWO

N = 240

	Mean	Correlation
IBT	0.59	0.5426
ABS	0.53	

TABLE - III

RELIABILITY COEFFICIENTS FOR IBT

Stability M=30 Test-retest F=40

Male (M)	0.84
Female (F)	0.76
Full	0.83

The test re-test reliability of IBT was investigated over a three week period and the co-efficients of correlation for males was 0.84, for females 0.76, and for the total group it was 0.83 showing IBT (Urdu version) as a reliable instrument (Table III).

DISCUSSION

Results reveal that both the hypotheses were supported and showed positive reliability and concurrent validity of Urdu version of IBT. The validity results are consistent with the findings of other studies (Jones, 1968; Woods, 1984; Wicker et al, 1985). It shows that IBT Urdu version can effectively be used to measure irrational beliefs of Pakistani population as described by Ellis (1962).

Results of co-efficient of correlation between MAS and IBT scores was 0.6234. It shows that both the instruments measure different aspects of anxiety, having certain interdependence of each other (Table I). Although co-efficient of correlation of 0.5426 between the total scores of IBT and ABS was not very high, the mean scores on the two tests were quite close (Table II). This indicates that both tests measure the irrational beliefs as proposed by Ellis (1962) but they seem to deal with different aspects of irrationality, as the scales of both tests are different. Results of test-retest reliability (Table III) revealed IBT (Urdu Version) as a highly reliable measure. The results are consistent with Jones's (1968) findings.

In short, the present study provides a valid and reliable instrument for RET practitioners and researchers in PAkistan to assess irrational beliefs (Ellis, 1962), and to use this information for diagnostic, therapeutic and research purposes.

The present investigation also supports Ellis's (1962) theoretical system and position which shows that irrational beliefs are functionally distinct instructs (Rahman & Hussain, 1991).

For future research on IBT following recommendations are suggested:

- Some items of the IBT (Urdu Version) e.g. Item No: 17,28,73,100 are quite ambiguous as many subjects faced difficulty in understanding them and

needed further clarifications. These items need to be readapted.

- Due to cultural influence (Cattell, 1962) there are some differences in irrational beliefs found in Pakistani and American populations. In the future, an attempt should be made to develop instruments according to the Pakistani culture.

- Efforts need to be made to find the relationship between different subscales of IBT, which can lead to greater discrimination.

- Reliability of each scale needs to be found for greater sensitivity.

- The variable of educational level needs to be controlled as was done by Jones (1968).

- It would be interesting to administer 16 PF test and a symptom check list measure as was used by Jones (1968) to compare the results between the two studies.

REFERENCES

Bard, (1973). Self-rating scale. CF: Bernard, M.E. & Joyce, M.R. (1984). Rational Emotive Therapy with Children and Adolescents. New York: John Wiley & Sons.

Barker, J.N. (1966). Reason Versus Reinforcement in Behaviour Modification. Doctoral Dissertation, University of Illinois.

Cattell, R.B. (1962). Advances in the measurement of neuroticism and anxiety in a conceptual framework of unitary - trait theory Ann. N.Y. Acad. Sci, 93, 815-839.

Cuber, J. F., Harper, R.A., and Kenkel, W.F. (1956). Problems of American Society. New York: Holf.

Digiuseppe, R. (1986). Attitude and Belief Test. New York: Institute of Rational Emotive Therapy.

Ellis, A. (1962). Reason and Emotion in Psychotherapy. New York: Lyle Stuart.

Ellis, A. (1973). Humanistic Psychotherapy: The Rational Emotive Approach. New York: Julian Press.

Farooqi, N.Y., and Shujaat, R. (1981). Semi-standardization of the Urdu Version

of Taylor Manifest Anxiety Scale. Unpublished Master's Thesis, Punjab University, Lahore.

Fox and Davis (1971). Adult Irrational Ideas Inventory. C.F. Bernard, M.E. & Joyce, M.R. (1984). Rational Emotive Therapy with Children and Adolescents. New York: John Wiley and Sons.

Frazer, J.G. (1959). The New Golden Bough. New York: Criterion.

Hartman, R.S. (1968). Personal Belief Inventory. C.F: Bernard, M.E. & Joyce, M.R. (1984). Rational Emotive Therapy with Children and Adolescents. New York: John Wiley & Sons.

Hoffer, E. (1951). The True Behaviour. New York: Harper.

Hoffer, E. (1955). The Passionate State of Mind. New York: Harper.

Jarmon, D.G. (1973). Differential Effectiveness of Rational Emotive Therapy, Bibliotheropy, and Attention-placebo in the Treatment of Speech Anxiety. Doctoral Disseration, Southern Illionis.

Jones, R.C. (1968). A Factored Measure of Ellis's Irrational Belief System with Personality and Maladjustment Correlates. (Doctoral Dissertation, Texas Technological College, R). Dissertation Abstracts International, 69, 6443.

Kassinove, and Beger (1982). Survey of Personal Belief C.F: Bernard, M.E. & Joyce, M.R. (1984). Rational Emotive Therapy with Children and Adolescents. New York: John Wiley & Sons.

Kassinove, H. (1986). Self reported affect and core irrational thinking: a preliminary analysis. Journal of Rational Emotive Therapy, 4 (2), 119-130.

Labarre, W. (1955). The Human Animal. Chicago: University Press.

Laughnridge (1975). Test of Irrational Ideas. C.F. Bernard, M.E. & Joyce, M.R. (1984). Rational Emotive Therapy with Children and Adolescents. New York: John Wiley & Sons.

Mass, W.R. and Heimann, P.A. (1974). The comparison of three approaches to the reduction of test anxiety in high school students: Final report on project 9-1-049. Washington D.C. Office of Education, Bureau of Research, U.S. Department of Health, Education and Welfare.

Maultsby, M.C. (1974). Common Belief Scale. C.F. Bernard, M.E. & Joyce, M.R (1984). Rational Emotive Therapy with Children and Adolescents. New York: John Wiley & Sons.

Rahman, N.K. & Hussain, M. (1991). Cognitive Mediation of Responses to Life Stress. Unpublished Advanced Diploma in Clinical Psychology Thesis, Punjab University, Lahore.

Rokeach, M. (1960). The Open and Closed Mind. New York: Basn Books.

Shorkey, C. and Whiteman, V. (1977). Development of Rational Behavior Inventory: Initial validity and reliability. Educational and Psychological Measurement, 37,527-534.

Solomon, G.S. & Ray, J.B. (1984). Irrational beliefs of shoplifters. Journal of Clinical Psychology, 40 (4) 1075-1077.

Tabori, P. (1959). The Natural Science of Stupidity. Philadelphia: Chilton Co.

Thyer, B.A., Miller, E., Gordon, A. & Papsdorf, J.D. (1982). Discriminant validity of the Rational Behaviour Inventory with respect to social desirability. Psychological Reports, 51 (2), 370.

Wicker, F.M, Richardson, F.C., and Lambert, F.B. (1985). Differential correlates of irrational beliefs. Journal of Personality Assessment, 49 (2), 161-167.

Woods, P.J. (1984a). Further indications on the validity and usefulness of the Jones' Irrational Beliefs Test. Journal of Rational Emotive Therapy, 2 (2), 3-6.

Woods, P. J. (1984b). Beliefs that Disturb. Roanoke V.a: The Scholar's Press.

Woods, P.J. (1988). The contemplation of suicide: Its relationship to irrational beliefs in a client sample and the implications for long range suicide prevention. Journal of Rational Emotive and Congnitive Behaviour Therapy, 6 (4), 236-258.

Woods, P.J. (1987). Reductions in type A behavior, anxiety, anger and physical illness as related to change in irrational beliefs: Results of a demonstration project in industry. Journal of Rational Emotive Therapy, 5 (4), 213-237.

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RELATIONSHIP BETWEEN SELF-CONCEPT AND ACADEMIC PERFORMANCE OF PAKISTANI STUDENTS

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ABSTRACT

This research was conducted to study the relationship between self-concept and academic performance. It was hypothesized that there would be a positive relationship between self-concept and academic performance. Sixty university students participated in the study. Correlations between the subscales of the Tennessee Self-Concept Scale and GPA were obtained. Results indicate a positive relationship between total self-concept score and GPA and significant positive relationships for the subscales of Identity, Behaviour, Personal Self and Family Self and negative correlations for the subscales of Self-Satisfaction and Moral-Ethical Self with GPA. No significant correlations for the Physical Self and Social Self subscales with GPA were found.

INTRODUCTION

It is known that the individual in the course of his development is exposed to a variety of pressures from his environment and he learns how to adjust to pressure by growing in self-understanding to fulfill his needs and achieve psychological satisfaction and adjustment. Therefore the individual's performance in the academic setting is affected by his perception of his own pattern of behaviour. The individual's self-understanding guides his interpretation of his environment, including his perception of the learning situation. This self understanding is termed as self-concept. Self-concept may be briefly defined as the sense of personal identity. Self-concept is one's concept of oneself in as complete and thorough a description as is possible for one to give.

Theorists, like Rogers (1951), view self-concept as an important determinant of one's behaviour. The self-concept is a central concept in Roger's theory. It is the organized set of characteristics that the individual perceives as being peculiar to himself or herself. It is primarily a social product and is acquired through social contact. Rogers believes that as a person interacts with significant people in her/his environment, like parents, brothers, sisters, friends, and teachers, she/he begins to develop a concept of self that is largely based on the evaluations of others. In short, she/he comes to evaluate herself in terms of what others think and not in terms of what she/he feels. She/he relies so heavily on the evaluation of others, according to Rogers, because she/he has a need for positive regard. Rogers is uncertain concerning whether this need is innate or learned, but he maintains that its origins do not really matter that much. What does matter is its impact on the individual. It is a strong need and is responsible for the person's tendency to rely more on others than on herself for judgments about personal self-worth. The person is aware of the fact that when she/he satisfies another's needs, she/he necessarily experiences satisfaction of her/his own need for positive regard (Rogers, 1959). As a consequence, the desire for positive regard from others may become more compelling than the individual's organismic valuing process.

Leviton, in 1975, while reviewing the research on the relationship between self-concept and academic achievement found a consistent moderate correlation between children's self-concept and academic ahievement.

Griffore and Griffore (1982) administered a battery of tests that included the Achievement Anxiety Test and Michigan State Academic Self-Concept Test to 304 freshmen. Ss were categorized into high, middle, and low achieving categories based on their 1st term GPAs. At the end of the term, differences between high and low achieving groups were found in academic self-concept, sense of academic futility, and facilitating test anxiety.

Robinson et al (1984) conducted a research in which 230 male and 72 female university freshmen specializing in engineering and technology were administered a scale of general self-concept of ability to assess the relationship between Ss self-concept of ability, academic aptitude, math and verbal skills, and achievement in technologically oriented college curricula. Results indicated that

self-concept of ability was positively correlated with academic success. There was a significant relationship between past academic performance and self-concept of ability.

Researches have also been conducted in order to see whether measures of self-concept would serve as predictors of academic performance.

A research was conducted by Gadzella and Williamson (1984) in which they investigated the relationship betwen study skills, self-concept, and academic achievement and whether self-report measures contribute to the prediction of GPA for university students. 110 undergraduates completed the Tennessee Self-Concept Scale and a study skills test. Analysis showed that study skills, self-concepts, and academic achievement correlated significantly with each other. In addition one measure of self-concept (personal self) contributed to the prediction of GPA.

Thomas and Marsh-Williams (1984) examined biographical, academic, self-concept, support, and other data for 111 women who had completed at least 4 weekend college courses. Ss' performance on a brief test of ability to identify written English were significant GPA predictors.

Tracey and Sedlacek (1985) administered the Non-Cognitive Questionnaire to 1752 White and 243 Black college students at intervals of upto 8 semesters. The predictive validity of NCQ in relation to GPA was examined. Results showed that the 8 dimensions of NCQ of which self-concept was one, were predictive of GPA for both races.

Researches have also been conducted in which no significant relationship has been found between self-concept and academic performance.

Mahmoud (1982) conducted a research to study the relationship betwen certain personality factors (including self-concept) and academic performance. Results indicated significant relationships between the final exam score and depression, anxiety and self-concept. There was no significant relationship between GPA attained during college year and self-concept.

Gadzella, Williamson, and Ginther (1985) explored correlations between selected scales of the (1) Tennessee Self-Concept Scale, (2) The Levenson Locus of Control Scales and grade point averages for 61 male and 68 female university students. Results showed that GPA correlated significantly and positively with the self-satisfaction subscale of the self-concept scale only. None of the self-concept scale scores correlated significantly with GPA for women. For men three self-concept scores (Self-satisfaction, Moral-Ethical Self and Personal Self) correlated significantly and positively with GPA.s

Spaights, Kenner, and Dixon (1986) asked 37 male and 81 female Black university students to complete the Tennessee Self-Concept Scale, which was used as a nonacademic factor that might have an impact on academic performance. For Ss as a whole, there was no significant relationship between self-concept and cumulative GPA. However, self-concept was significantly related to GPA for females.

Demo and Parker (1987) examined the relationship between GPA and self-esteem (SE) in 298 Black and White undergraduates. Results indicated that the relationship between GPA and SE was negligible among Blacks and among White males, suggesting that academic achievement is not critical to the self-concept of college students.

Cooper and Robinson (1987) investigated the relationship between self-concept of ability and student capacity to benefit from training in study skills and self-management. A sample of 21 underachieving high ability students who were sample of 21 underachieving high ability students who were participating in a 7-wk structured support group were studied to determine both changes in GPA and self-concept of ability. Results indicated that students with initially higher levels of self-concept of ability had greater academic gains.

The present study was conducted in order to investigate the relationship between self-concept and academic performance among students in a competitive environment. It was hypothesized that self-concept would be positively related to academic performance of the Pakistani students.

METHOD

Subjects

Sixty undergraduate students from the Institute of Business Administration (IBA) participated in the study out of whom 25 were girls and 35 boys, with ages ranging from 18 years to 20 years.

Material

The Tennessee Self-concept Scale-Counseling Form was used. The students' Grade Point Average (GPA) was taken as a measure of academic performance.

Procedure

The scale was administered in a group. Each subject was provided with a test booklet and separate answer sheet. Subjects were asked to answer the statements according to a five point scale, as to whether the statements were completely false, false, partly false and partly true, true, or completely true, as applied to them. English subscales and total self-concept scale scores were derived.

RESULTS

The means of the score on the Tennessee Self-Concept Scales and GPA for total group are presented in Table 1.

Pearson product-moment correlations between scores on the eight Tennessee Self-Concept Scales and GPA for total group are preented in Table 2.

The results of the present study show a positive correlation between self-concept and GPA, which supports our hypothesis that self-concept will be positively related to academic performance. Besides total self-concept, correlation of GPA with eight subscales of the self-concept scale were derived.

The results show a positive correlation between the scales of Identity, Behaviour, Personal Self and Family Self with GPA. No significant correlations were obtained between the scales of Personal Self and Social Self, with GPA. Negative correlations were obtained between the scales of Self-Satisfaction, Moral-Ethical Self and GPA.

TABLE 1

Means of the Tennessee Self-Concept Scales and GPA

	Mean
Tennessee Self-Concept Scale	
Identity	117.10
Self-satisfaction	103.55
Behaviour	99.88
Physical Self	66.55
Moral-Ethical Self	64.65
Personal Self	63.93
Family Self	64.90
Social Self	62.70
Total Self-concept	321.83
GPA	

TABLE 2

Pearson Product-Moment Correlations Between Tennessee Self-Concept Subscales and GPA

	Mean
Tennessee Self-Concept Scales	
Identity	+0.91
Self-satisfaction	-0.55
Behaviour	+0.89
Physical Self	+0.05
Moral-Ethical Self	-0.77
Personal Self	+0.53
Family Self	+0.38
Social Self	-0.04
Total Self Concept	+0.54

DISCUSSION

Previous studies have shown that self-concept is significantly related to academic performance.

The results of the present study also indicate a positive relationship between the total self-concept score and GPA. However, significant positive relationships were found only in four of the subscales of the Self-concept Scale. These were the subscales of Identity, Behaviour, Personal Self, and Family Self. The relationship between the Identity subscale and GPA is very strong and positive, suggesting that a person with a positive self-perception of his basic identity will have a higher GPA. The strong positive correlation between the Behaviour subscale and GPA suggested that individuals with positive perceptions of the way they function, have better academic performance. Similarly a person's sense of self worth as a person, is significantly related to academic performance. We may assume that a

person with a positive personal self will perform better academically. Family Self is also positively but moderately related to academic performance.

The results further revealed no significant relationship between Physical self, Social self and GPA. This suggests that a person with a high physical self or a high social self will not necessarily have a high GPA.

The subscales of Self-satisfaction and Moral-Ethical Self have a strong negative relationship with GPA. This indicates that individuals with low self-satisfaction will have a high GPA. This may be due to the fact that such people may not be satisfied with their accomplishments and may continue to strive to do well and hence perform better academically. The Moral-Ethical Self subscale is also negatively related to GPA, suggesting that students, with positive perceptions of their moral-ethical self, have low GPAs.

REFERENCES

Cooper, S.E. and Robinson, D. A. (1987) The effect of a structured academic support group on GPA and self-concept of ability. Techniques, 3(4)260-264.

Demo, D.H. and Parker, K.D. (1987) Academic achievement and self-esteem among Black and White college students. Journal of Social Psychology, 27(4), 345-355.

Gadzella, B..M. and Williamson, J.D. and Ginther, D.W. (1985) Correlation of self-concept and academic achievement. Psychological Reports, 54(3), 923-929.

Gadzella, B.M., Williamson, J.D. and Ginther, D.W. (1985) Correlation of self-concept with locus of control and academic performance. Perceptual and Motor skills, 61(2), 639-645.

Griffore, R.J. and Griffore, G. (1982) Some correlates of high and low first term achievement in college. College-Student Journal, 16 (3), 249-253.

Leviton, H. (1975) The implications of the relationship between self-concept and academic achievement. . Dissertation Abstracts, 54(1-3), 231.

Mahmoud, A.A. (1982) The relationship between depression, anxiety, self-concept and academic performance. Dissertation Abstracts International, 42 (9).

Robinson, D.M. and Williamson, J.D. (1984) The influence of self-concept on academic success in technological careers. Journal of College Student Personnel, 25 (2), 145-149.

Rogers, C.R. (1951), Client CenteredTherapy: Its Current Practice, Implications and Theory. Boston: Houghton.

Rogers, C.R. (1959) A Theory of Therapy, Personality, and Interpersonal Relationships, as Developed in the Client-Centered Framework, in S. Koch, ed., Psychology: A Study of a Science, Vol.3 (New York: McGraw-Hill, 1959).

Spaights, E., Kenner, D. and Dixon, H. (1984) The relationship of self-concept and the academic success of Black students in White institutions of higher education. Journal of Instructional Psychology, 13(3), 111-121.

Theiman, T. and Marsh-Williams, P. (1984) Prediction of academic performance of adult women in a weekend college program. Journal of College-Student Personnel, 25(3), 260-264.

Tracey, T.J. and Sedlacek, W. (1985) The relationship of noncognitive variables to academic success: A longitudinal comparison by race. Journal of College-Student Personnel, 26(5), 405-410.

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CASE HISTORY AND TREATMENT OF A CASE OF PSYCHOPATHIC DISORDER

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INTRODUCTION

Rahila (not her real name) was a thirty two year old divorced woman who came from a middle class family and was the older in a family of two siblings. She had not completed high school but had grasp over the English language because of her family background. She was brought to the author for various antisocial problems.

CASE HISTORY

Rahila's father came from a land-owing family from the interior of the province of Punjab. He, however, lived in Karachi because of his children's education. Rahila's mother was about ten years younger than her father and was extremely good looking, and was also conscious of the fact that she was a beauty.

The mother came to a local clinic for her treatment because she was suffering from various psychophysiological ailments. During her treatment she used to bring her nine year old daughter with her and used to show her off to the entire clinic because she was proud of the fact that she had an equally good looking daughter. Rahila's brother was an average-looking boy and was often made conscious about it by his mother and the sister. The father had no control over the wife and the daughter and they used to spend much money on their clothes, cosmetics and jewellery. It was very noticeable that both mother and daughter were used to

dressing in expensive clothes and putting on lavish jewellery and cosmetics which was rather unusual for a culture like Pakistan's. Ultimately the mother was sent to a psychiatrist for treatment and the daughter was sent to the author for evaluation and psychotherapy when she was only nine years old.

Rahila's protocols as well as personality evaluation showed psychopathic tendencies. She even indulged in behaviour problems including stealing and sexual promiscuity. She came to the author for treatment for only two weeks and after the reports were given, both the mother and daughter did not reappear at the clinic.

Rahila came to the author once again at the age of thirty two, when she had already been divorced. Rahila had not gone to school regularly and hence could not complete high school. She fell in love with a man who was already married and had two children. She got married to him. Her husband used to gamble and was also involved in other illegal activities. He used Rahila for certain illegal activities several times and she enjoyed the liberty and freedom which went with her trips abroad. She became very independent and almost began to brag about her affairs with other people. Ultimately even the husband who was himself not a highly moral individual had to divorce her for her character problems. After the divorce she began to live with her father, her mother and the brother who used to come and go because he was working in a different city. Obviously the parents could not keep track of Rahila's activities and she went ahead and spoiled her name and the name of the family. Many scandals were hushed up because of their resources but ultimately she was brought for treatment.

TREATMENT

Rahila was once again given an entire battery of tests and the results of the tests were compared with the previous records and it was found that she had never got out of her psychopathic personality and as a matter of fact now she had deteriorated to the point that it had become a full psychopathic disorder. Rahila was treated with drugs because she had to be detoxified because of her drug addiction. After detoxification she was given intensive psychotherapy and both her parents were involved in the treatment because they themselves were mentally upset and on the verge of breakdown.

During the treatment some environmental manipulation had also to be done and Rahila had to be kept with her aunt in order to learn domestic work and modes of morality from her. Both the parents were seen at times together with Rahila and they all talked out their problems in family therapy. After an intensive treatment of a year and a half, both Rahila and her mother had gained insight into the realities of the world and ceased to live in their artificial world.

Ultimately the parents began to look around for a suitable match for Rahila. She kept on refusing because she highly feared getting married but after persuasion by the parents and psychotherapeutic sessions she agreed to marry a widower who belonged to the same family as hers. She lives with him in a respectable way but has never had any children of her own. She looks after the daughter of her second husband who is quite happy and although not very pretty has completed her graduation. Her daughter is now twenty one years old and Rahila is busy looking for a suitable match for her.