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Editorial

OVERSELLING THE HALF-TRUTHS AND THE HALF-COOKED SOLUTIONS

Change is the law of nature. "The old order changeth yielding place to new, lest one good law should corrupt the world". Traditions change, fashions change, attitudes change, and so does knowledge. Nothing is stable, everything changes, it has to change, nothing is evergreen. This much goes without saying. However it is debatable whether every change is always for the better. Sometimes the newer models of explaining behaviour may add to the prevailing confusion rather than clearing it up. The newest is not always the best. The latest may not necessarily be the greatest. A healthy balance is always needed. Yet in majority of the cases, the newer solution now-a-days seem to be oversold. What makes it worse is the fact that many a time the solutions offered are half-baked ones, if not completely uncooked. Half-truths are made to pass as facts. This, is as bad as the blind resistence to new, fresh and novel ideas. Both are extreme reactions, and hence need to be checked and corrected, at the early stage.

Let us take the case of Intelligence tests. There is no doubt that they,like many other things, were oversold. Lots of claims were being made for them. Now the pendulum has swung the other way. For example, a professor of psychology is heard saying that if he is ever made incharge of a child guidance clinic, the first things that would go out of the window, would be the intelligence tests. Another psychologist describes all intelligence tests as culturally biased and possibly destructive. These tests have been denounced, discredited, and deplored. The National Education Association (NEA) USA, with a membership of 1.8 million teachers, has called for the abolition of all standardized intelligence, aptitude and achievement tests on the grounds that they are at best wasteful and at worst destructive. It is claimed that measurement of intelligence is still an art, not a science, its use stigmatizes the low scoring students in classes, that further discourages learning and so on. This is only a sample of the common crusade against

the continued use of intelligence tests. All these leave a bad taste in the mouth, for the criticism is not always tolerant and cultured.

Let us now have a look at some of the half-cooked alternatives that are offered as substitutes for intelligence tests. One such solution is the so called measure of originality or creative intelligence or creativity. The claim is interesting, challenging and worth looking into. It is promising but appears still vague, beyond reach and half-cooked. Promises are not facts So far very little is available in the form of any long term follow up evidence of its utility. Perhaps it is too early to expect that. Perhaps it is the "fate of rebels to form new orthodoxies". It is like a useful idea being oversold to the extent of making it useless. It all creates more problems than it solves.

Amongst some others still less worked out but claimed to be new innovative approaches, is the possibility of replacing intelligence tests by things like- "process analysis", "componential analysis", "a new computerized brain potential test using E.E.G. readings and 30 other measures of electrical activity" "evoked potential giving results like a finger print of the brain", etc It is a better policy to wait and see and then only to claim, rather than jump and cry "Eureka" every now and then, only to be thwarted and to disappoint others, returning to the hard surface of the truth after making imaginary voyages into the fantasy.

Another example could be that of psychoanalysis, or existential analysis, or, behaviour therapy, and transcendental meditation. The way psychoanalysis was publicised and taken up by psychologists, psychiatrists, writers, artists, and other intelligent laymen of the time, it seemed to be the best way to reach the inner most thoughts of one's mind. Every behaviour was claimed to be explainable on this basis. It had answers for everything, like a "Ram ban aushadhi" (cure all medicine) or "Kamdhenu gai" (the wish fulfilling cow). If the explanation given was accepted, well and good, if not, still nothing to worry about It only showed the resistance and immaturity on the part of the non-convert or, nonbeliver. It became fashionable to talk about one's psychoanalyst or, psychoanalysis. Like all fashions, soon it went out of fashion, became old fashioned, and was replaced by a new craze or, a new wonder therapy, one after another. The things march on, time waits for nobody. Every new craze just lasts so long. Half-truths can not stand the test of time. though old habits die hard. Now, T.M is in the news. The things it is claimed to cure even when only 1% of the population do come to

practice it, are tremendous. It is claimed to lead to harmony in the universe, create an atmosphere of peace and tranquility all around. Draughts, floods, and even wars can be averted and so on. A World Government with Governors and Ministers has been formed, an International University has come into existence. These are only a few of the examples. Many scientists are also known to believe in and practice T.M., still everything that goes in its name is difficult to swallow. This is not to claim that scientists are not humans or they cannot err, or, can not have their private opinions about other things in today's world of super-specializations.

Statistics, though a useful and basic science, is sometimes described as "a rainbow of lies" or, blamed that it is "like a bikini which reveals something that is interesting but conceals something that is vital", and also seems to be no exception to criticism. At times it is oversold, in the sense that it is claimed to arrive at some basic correlations, revealing basic structures of intelligence or personality, and in just a few years all our problems of predictions of human behaviour would be solved. However the facts have been otherwise. Inspite of various known techniques of factor analysis, there seems to be no agreement as to the number of factors of intelligence or personality and something like an "accepted-by-all-contested-by none," basic structure has yet to emerge. Human behaviour is as yet mostly unpredictable, though some gains have been made in limited areas.

Overselling the half-truths and the half-cooked solutions is an art and not limited to one or two professions only. No one seems to be immune to it. No area in human life can possibly claim to remain totally unaffected. Perhaps this has been going on since times immemorial and would continue to do so in times to come. However the total area of its influence can be and should be reduced as far as possible. This is going to be difficult, particularly in an age, where it seems to be a craze to be crazy over one thing or the other. However difficulties are there to be over come, as they have been in the past, at the same time, they remind us that perhaps we have been in the habit of expecting too much too soon in the area of understanding, predicting and controlling human behaviour. A need for caution is indicated.

S. K. VERMA

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HABITUATION OF SKIN CONDUCTANCE RESPONSES IN DEPRESSION

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Skin conductance and its response habituation were measured in 12 agitated, 12 retarded depressives and 12 normal subjects. Results indicated higher SC in the agitated patients, lowest in the retardates, whilest the normals fell in between. Habituation of responses to visual stimuli was nil in the agitated group, remarkably poor in the retardates, whilest the normals reached the criterion of habituation. Further analysis of data combining the two groups of patients together revealed less discrete change in the magnitude of differences in SC and GSR between the patients and normals.

Depression seems too global and defuse a concept even today though it has got much value heuristically. In this context Sir Aubrey Lewis (1964) in introducing the Cambridge Symposium on Depression pointed out that the areas of ignorence about depression are very vast. Such ignorence is mainly because depressive illness is an ill-defined heterogenous entity, and a wide and differing range of clinical features are seen in such patients. Also depression as a symptom is present in different forms of psychiatric illness. Recent research using psychophysiological techniques claimed that there are biological correlates of certain features of depression (Lader, 1971). Some of the measures employed in such research are forearm blood flow, skin resistance (SR), and its response (GSR) etc., of which the present study is mainly concerned with the latter two. Previous studies of the SR(reciprocal in conductance) in depressive illness are few and will be briefly reviewed.

In an early study Richter (1928) found higher SR(low conductance) in depressed patients than the normals, whilest Gilberstadt & Maley (1965), on the contrary, reported both higher and lower skin conductance (SC) in such patients. Such contradiction in findings might be because in the latter study patients

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were classified as (a) predominantly depressed, and (b) predominantly anxious, depression being secondary, but in the former study patients were labeled under one broad heading 'Depression'. Applying such classification Gilberstadt & Maley (1965), on the basis of their study, claimed more specifically that higher than normal SC was evident in case of group (a) whilest below normal SC in group (b). From this, one could assume, that habituation of GSR, which is a determinant of base level activity (Lader & Wing, 1969), could show different trends when depressed patients would be classified into different groups on the basis of their level of activation.

The purpose of the present study was to examine the level of SC and its response habituation (GSR) in two groups of depressed patients classified as 'Agitated' and 'Retarded', when compared with a group of 'Unclassified' depressed and matched normal controls.

MATERIAL & METHODS

Subjects : Twelve male agitated ('A') depressive patients (mean age 26.3 yr), 12 retarded ('R') depressive patients (mean age 26.9 yr) and 12 normal controls (mean age 24.2 yr) were tested. The patients having had their first attack of illness, free from any organic pathology and medication were collected randomly from the psychiatry O.P.D. of a local Medical College & Hospitals. The controls were also selected randomly from post graduate classes of a local University. They were also free from any psychiatric or neurological complaints. The age differences between two groups of patients and between patients and normals were no where statistically significant.

Materials : SC and GSR were measured using Polyrite, INCO, Chandigarh. The specification of the electrodes used and its contact medium have already been detailed elsewhere (Chattopadhyay, et al., 1975).

A series of 20 light flashes, each of 10 sec. duration and 9.0×10^5 candles/cm^2 intensity(Chattopadhyay, 1976) were used as a visual stimuli. The inter-stimulus interval varied randomly from 45 to 8) sec. with a mean of 1 min. (Lader & Wing, 1966). The onset of each stimulus was marked by a stimulus marker on the recording chart.

Analysis of Tracings : SR was read off the Polyrite tracing and was converted into Log SC (in μmhos) (Lader, 1970). GSR was obtained by subtracting the pre-stimulus Log conductance from the post stimulus Log conductance value. The criterion of habituation was failure to respond to three successive stimuli (Lader &

Wing, 1966). Finally, 20 responses were plotted in 5 blocks (4 successive in each).

Experimental Conditions & Procedure : Each patient was investigated thorughly at the O.P.D. by the psychiatrist of the hospital whose diagnostic classification (DSM II, APA, 1968) was obtained. A check on the psychiatrist's diagnosis was done with the Multi-Phasic Questionnaire (MPQ, Murthy, 1965) administered by a psychologist in a double blind arrangement. When the diagnostic opinion tallied with that of the diagnostic impression obtained on MPQ, that patient was then selected. The same sequence was followed for selection of the normals, except that they did not have to report to the O.P.D., Psychiatry. Patients were further rated on Hamilton (1960) Depressive Rating Scale by the psychologist concerned and were divided either into 'A' or 'R' group following the procedure given by Lader & Sartorius (1968). Those having overlapping features were excluded.

Subsequently each subject was taken individually in the experimental room for recording of SC and GSR, the procedure for which has been detailed elsewhere (Chattopadhyay, et al., 1975). SC was recorded for 10 minutes in resting condition which was followed by a stimulation period consisting of 20 light flashes from a stationary light source. When a subject attained the criterion of habituation, recording was stopped and in case of non-habituators, the recording continued until the 20th stimuli. Inter group comparison of the data was made with regard to both SC and GSR applying 't' technique.

Results and Discussion : The results obtained showed highest SC in group 'A' ($\bar{x}$=1.13 Log μmhos) and lowest in group ' R' ($\bar{x}$=0.42 Log μmhos) whilest the normals fell in between ($\bar{x}$=0.59 Log μmhos). The mean differences between the groups were statistically significant throughout and the minimum level of significance was beyond 0.05.

Response habituation was so to say nil in group 'A' and their SC showed a gradual increment over time instead (Fig. I). The 'R' group showed no appreciable change in the responses due to stimulation so much so that the responses were not calculable even. The normals in both the cases did show response habituation.

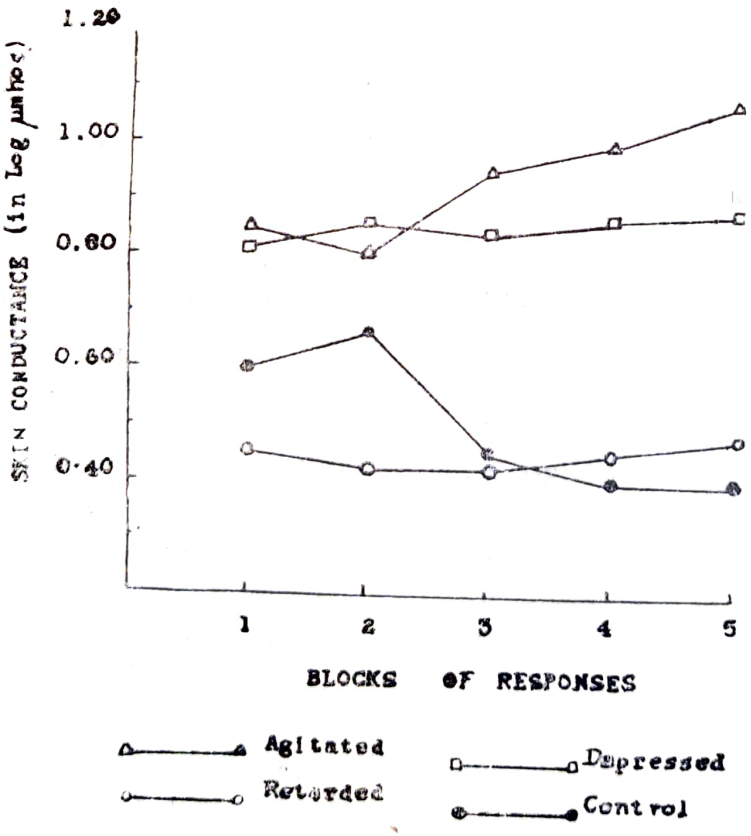
Now, to examine whether the same response trend, as was evident before, could be obtained when the patients are pooled together under one broad heading 'Depression', ignoring their 'agitation-retardation' dichotomy, the data were analysed further applying 't' technique. Such

an arrangement revealed higher SC in the 'depressives' ($\bar{X}$=0.78 Log μmhos) than the normals ($\bar{X}$=0.59 Log μmhos) t–2.12, p<0.05) and quicker response habituation for the latter, whilest no habituation in the former (Fig.1).

From the said results what is obvious that 'R' group as a separate entity showed below normal SC but when combined with group 'A' the combined SC showed an increase, putting the normals below in its magnitude. Such a combination appears to be erroneous and misleading from the diagnostic point of view.

However, our findings of higher SC (more sweat gland activity) in the 'A' group are in line with Greenfield et al., (1963) but go somewhat contrary to Goldstein (1965) who reported that depressives were more responsive than the normals on GSR. Such contradiction could be because in some of these studies very little care was taken to eliminate those patients having anxiety as predominant and pervasive symptom and despression if present, only secondarily. However, classifying their patients into 'agitated', retarded' and 'uncomplicated' depressives, Lader & Wing (1969) obtained higher SC and less response habi-

Fig. I SHOWING THE TREND OF HABITUATION IN DEPRESSIVES AND NORMALS.



tuation in the agitated group. Thus, our present findings are in line with Lader & Wing (1969) and many others (Gilberstadt & Maley, 1965) supporting the view that higher anxiety is detrimental to response habituation. The 'R' group in the present study showed uncalculable response and a similar trend was reported by others (Lader & Wing, 1969).

Since SC is a function of sweat glands, and the secretion of sweat is mediated autonomically (Noble & Lader, 1971) presumably the 'R' group of depressives are autonomically less reactive than their agitated counterpart. In the 'R' group below normal arousal (lower SC) and in the 'A' group very high arousal (higher SC) both are detrimental to response habituation but through different means. In the former there is lack of information to get oneself oriented to the constant influx of stimuli in the environment, whilest in the latter, there is overflow of information (Maron, 1965).

Summing up, there appears to exist some relationship between sweat gland activity and depressive symptomatology. Such a relationship suggests that retardation or agitation is a key variable in interpreting the physiology of depression. Similar relationship between retardation and biochemical changes in depressed patients has been reported by others (Schildkraut et al., 1966). The number of patients tested was small and become even smaller when divided into two groups, viz., 'A' and 'R' Hence, further investigation in this area would seem warrented.

Conclusions: The 'R' group showed below normal SC and no change so to say in their basal SC due to stimulation (GSR). The 'A' group showed very high SC, so much so that their GSR failed to habituate. Such distinct findings of SC and GSR in the 'A' and 'R' groups were lost completely when the groups were pooled together as 'depression'. The normals in their SC fell inbetween the 'A' and 'R' groups, and their GSR did show a trend of habituation over time.

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sleep and to ask him to evacuate. Calender method was employed to increase the child's self confidence. He was asked to draw a circle around the data on which he remained dry regularly and suitable reward was awarded to him for increasing number of dry-nights. Children were called for follow-up every week fort-nightly. At each follow-up, the frequency of bedwetting per week and per night were enquired into. This procedure was carried out for 5 weeks and the progress recorded.

Children between 3-6 years received 10 mg of amitryptaline and those above 6 received 25 mgs. The dose being doubled if no improvement occured within 3 weeks. The response was noted down. Children receiving combined therapy of psychological treatment and amitryptaline were given both the above treatment and the progress recorded simultaneously. Children were followed over a period of 4-5 months and any cure, improvement or regression were noted down.

Follow up : Children were followed for a duration of 4-5 months. any improvement, cure or relapse was noted and the observations were made.

Discussion :

(1) Psychological Treatment +Placebo : After 5 weeks of psychological treatment 3 Cases (15%) were cured, 9 cases (45%) improved and 8 cases (40%) showed no improvement. Werry (1967) and Cohressen (1967) reported a cure rate of 20% in their series. It seems that the cure rate differs from writer to writer because of the sample of the study and technique used for the treatment but it definitly proves the effectiveness of psychological treatment of enuresis.

(2) Response to Amitryptaline Treatment : In the present study 14 cases (70%) were dry and remaining 6 (30%) showed improvement in the treatment with drug. Ditman (1975), Poussaint and Ditman (1975), Shah (1971) and Ditman (1975) found this drug very effective in the treatment. It was thought to decrease the depth of sleep and to cause relaxation of detrussor muscles and increase in the tone of vesical sphinctses,resulting in higher stretch reflex treshold.

(3) Psychological treatment and amitryptaline-(Combined threapy) In the combined therapy 9 cases (45%) became dry 10 cases (50%) showed improvement and 1 case could not be improved. Nigam et al (1973) have observed complete recovery within a shorter period with combined therapy.

In comparing all three types of treatment it is found that quickest

Table I

Effect of treatment on Enuresis

Response	Amitryptaline		Amitryptaline + Psychological Treatment		Psychological treatment + Placebo		Total	
	No. :	%	No. :	%	No. :	%	No. :	%
Completely dry.	14	70	9	45	3	15	26	43.3
Improvement.	6	30	10	50	9	45	25	41.6
No Improvement.	-	-	1	5	8	40	9	15.0

Follow up : Children were followed for a duration of 4-5 months, Any improvment, cure or relapse was noted and the observations were made.

Table II

Follow - up.

Response	Amitryptaline		Amtryptaline + Psychological treatment.		Psychological treatment + Plocebo.		Total	
	No. :	%	No. :	%	No. :	%	No :	%
Completely dry.	10	50	11	55	5	25	26	43.33
Improvement.	8	40	8	40	10	50	26	43.33
No improvement.	2	10	1	5	5	25	8	13.34

response in the initial stage is seen in the group treated by drug. Next to it is the combined therapy group and the last group is of psychological treatment. But if we look at the problem as a whole then it is found that psychological treatment is the best, because required period was not used for this therapy. Whatever time was devoted for the training was not sufficient even then it is obivious from the result that with the passage of time the rate of cure and improvement has gone up. At the same time there is no relapse. In other two groups it is not so. If psychological treatment is carried out properly with proper time, it may be proved to be one of the best treatment for enuretic children.

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EVALUATION OF AN ORIENTATION COURSE FOR TEACHERS ON EMOTIONAL PROBLEMS AMONGST SCHOOL CHILDREN

MALAVIKA KAPUR, ILLANA CARIAPA and R. PARTHASARATHY

An orientation course was conducted to sensitise teachers to emotional problems of school children. 111 teachers were given 5 sessions each, consisting of brief lectures and informal discussions on behaviour problems, psychosomatic illnesses, speech disorders, epilepsy and psychoses with emphasis on causation, identification and referral. An evaluation was conducted before and after the course to assess the knowledge and attitudes of 80 teachers to problems of children using a questionnaire. Attempt was made to select those with high counselling potential from the group by rating the responses of the teachers to 10 hypothetical counselling situations independently by 4 raters.

Introduction—Creating a resource utilising already available non-professionals in the delivery of services in the field of mental health has been already an acceptable concept (Public health papers No 60, 1974). To translate this into action, training school teachers to recognise emotional problems of school children and thus to create a resource within the community was carried out in a study reported earlier (Kapur and Cariapa, 1978a, 1978b, 1979). The present study is yet another attempt at evolving a training programme for sensitising school teachers to problems of school children. In order to facilitate better follow up and evaluation, the entire teacher population of a single school was taken. Initially an orientation course to sensitise school teachers to emotional problems amongst children was carried out by the community psychiatry unit of NIMHANS.

Material and methods— All the school teachers of a school catering to poorer section of the community formed the population. The school had 139 teachers and 6230 children on its rolls. The present paper describes the first phase of the study carried out in order to sensitise teachers to emotional problems of children. The second phase consisted of selecting a small group of teachers and train them in coun-

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selling the children who require help.

The teachers were given orientation courses in three batches, i. e,, primary, middle and high school teachers. Each course consisted of five sessions. Inclusion into the group was on a voluntary basis. Brief lectures were given on intelligence, behaviour and emotional problems, special problems of specific age groups, speech disorders, epilepsy, intelligence and psychoses and some serious disorders of childhood. The group members were encouraged to present cases and discuss them. They were also given pamphlets on topics covered.

Pre-and post-assessment of the course was carried out. The questionaire consisted of 3 sections. The first section consisted of 24 descriptive terms on various aspects of behaviour such as shyness, noisy behaviour, restlessness, disability lack of attention and disturbing others in the class, laziness, truancy, fear of teachers, of examinations, day dreaming, stealing, mischeviousness, aggressive behaviour towards teachers and other children, lack of respect towards teachers, not doing home work, bad hand writing, bedwetting, nervousness, masturbation, depression and seeking gang activity. These were to be rated as to whether they were very harmful, slightly harmful or not harmful, with respect to healthy alround development of children. The second section consisted of 19 items measuring **attitudes** and **knowledge** regarding the aspects such as prevalence of mental illness among children, influence of sensory or motor handicaps on school performance' role of emotional factors in psychosomatic illness, stammering, poor performance etc,, and attitudes towards treatment of epilepsy. In addition there were items measuring radical vs conservative attitudes towards sex education, coeducation, interest in opposite sex, parental interference, and importance of examinations along with one item to test out whether there was any haphazard rating. These items were to be rated as 'Agree, do not agree, do not know'. The **third** section consisted of **10 hypothetical counselling situations** which aimed at measuring counselling potential of the subjects based on their responses rated independently by 4 raters.

RESULTS :

(a) Demographic description- 111 teachers participated in the course. Their ages ranged from 22 to 55 (average age 35 years) and education from matriculation to university degree with average teaching experience of 13 years. 80 of the 111 teachers had both before and after assessment and the

TABLE-I

Ratings on attitude

Items of behaviour	Experts opinion	Agreement with experts		X^2
		Before	After	
1. Restlessness	Harmful	49%	30%	6.82**
2. Distractibility	Harmful	51%	18%	22.09**
3. Laziness	S. Harmful	21%	42%	9.97**
4. Playing truant	Harmful	62%	42.8%	20 63**
5. Fear of teachers	Harmful	34%	19%	6.55*
6. Fear of exams	Harmful	40%	22.5%	6.13
7. Stealing	Harmful	62.5%	51%	3.86**
8. Not doing homework	S. Harmful	46%	65%	5.77*
9. Depression	Harmful	71%	58%	4.17*
10. Seeking gang activity	Harmful	59%	40%	8.33**

* $p < .05$ ** $p < .01$

analysis was carried out only on that data.

(b) Evaluation of changes – in the expressed attitudes before and after the course.

The table I shows that out of the 10 statistically significant items only two i.e., regarding laziness and not doing home work are in a positive direction, in terms of agreement with experts ratings. However, further analysis showed that the 3 groups differed in their performance. Among the primary school teachers, behavioural aspects such as restlessness, distractibility, laziness, playing truant, fear of teachers and examinations, nervousness and not doing home work and amongst the high School teachers attitude towards restlessness, distractibility, playing truant, fear of teachers and examinations, mischeviousness, masturbation, depression and gang activity were significantly changed. But the middle school teachers showed no significant change.

TABLE - II

Significant changes in attitudes

Items	Experts opinion	Agreement with experts		X^2
		Before	After	
1. Children also may become mental ill	Agree	70%	84%	5.26*
2. Defective vision and hearing may lead poor performance	Agree	74%	85%	4.26*
3. Epilepsy can be completely controlled with drugs	Agree	34%	68%	20.09**
4. Asthama may be due to emotional reasons	Agree	30%	62.5%	16.10**
5. Stammering may be due to emotional reasons	Agree	48%	83%	21.78**
6. Poor intelligence can be improved with medicine	Disagree	43%	71.5%	17.07**
*7. Tuberculosis may often due to emotional reasons	Disagree	31%	62.5%	18.94**
8 Children with epilepay under control may do well in studies as others	Agree	46%	64%	4.67*
*9. Examinetions have no place in education	Agree	22.5%	40%	8.91**

(Item 7 is a catch question to check on haphazard rating a. d Item 9 indicates a radical vs conservative dimension in attitude)

* $p < .05$ ** $p < .01$

The table II shows that 9 items out of 19 showed significant improvement in the expressed attitude, all in the expected direction.

(c) Measurement of counselling potential.

TABLE - III

Interrater reliability of counselling potential

	Before		After	
	F ratio	r	F ratio	r
Between the people	4 73	0 73	4 39	0.77
Between the judges	75.92	0.99	46.42	0.98

Table III shows that there is high degree of agreement regarding the counselling potential by the 4 supervisors before as well as after the course. In addition, the 4 supervisors together rated the performance of the group after the course as better with the t value of 4.41, which is significant at $p < 0.001$ level.

DISCUSSION

Evaluation of changes in expressed attitudes—Each of the groups (primary, middle and high school) varied significantly in their performance. This may be due to following reasons. Both the English and the translated versions of the first section were found to be difficult to comprehend for the teachers particularly to those who did not have university education. Experts themselves felt that there could be no clear ratings as the terms were relative and could be understood in relation to duration and intensity of the symptom. The emphasis was on developing a caring attitude and to explain devient behaviour in terms of stresses faced by the children. Table II shows improvement in attitudes suggesting that the content of the course has influenced the attitudes in a positive direction.

Evaluation of counselling potential—The method of employing hypothetical situations to assess counselling potential appears to be one of the fairly reliable methods The group showed significant improvement in the counselling potential. The method may be effectively used to select those with high counselling potential for further training.

Conclusions—(i) Changes in expressed attitudes and counselling potential towards problems amongst children can be brought about through brief orientation courses, but methodological deficiencies may lead to ambiguous conclusions. (ii) Counselling potentials of the candidates can be effectively assessed with high interrater reliability. (iii) Such procedures may be used for selection of trainees to be given further training in counselling.

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THE RAGGER: A PSYCHOLOGICAL STUDY

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118 medical graduate students were tested for ascertaining its attitude towards the practice of ragging college freshmen. Ragging was found supported by 76% of the subjects. A subsequent comparative study of Raggers and Non-raggers along variables like Maladjustment, Gregariousness. Thoughtfulness, and Materialism/Spiritualism tended to strongly suggest rethinking regarding the relationship between religious training and character formation.

Ragging is declared unlawful by several of the State Governments of this country. Nonetheless, many rural and urban teaching institutions come up with gruesome reports of this campus menace. This naturally raises questions like what sort of young man is it that generally indulges in this kind of activity, what are his personality characteristics, what sort of philosophy-of-life is taking shape in him, and so on. The work reported here tries to answer some of these questions.

METHOD

Subjects—Since ragging is not ubiquitous, the entire lot of 118 third year students (55 of them males) of a Government Medical College among whom ragging was reported to be rampant was taken as the subjects of the study. They belonged to the age range 19-26 years.

Materials—The following were the test materials used in the investigation. A five-point scale (from 'Very much in favour of ragging' to 'Very much opposed to ragging') to assess attitude towards ragging, The Mathew Materialism/Spiritualism Scale (Mathew, 1973) & the Mathew Temperament Scale (Mathew, 1974).

Procedure—The Personality test and the Materialism/Spiritualism test were administered first. This was followed by the administration of the Attitude Scale.

RESULTS

Out of the 118 subjects, three secured score 3 which indicated uncertainty in the attitude. These three were omitted from the group. In the remaining 115, those who secured scores 1 and 2 were taken as Raggers and those who secured

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scores 4 and 5 were taken as Non-raggers. Thus, in the Raggers group, the N was found to be 76 (33 males) and in the Non-raggers group, 39 (19 males) The mean scores of these two groups in the ten variables under consideration were calculated, and the 't' test was applied.

Discussion

Of the 115 subjects, 76, i.e. about 66% are in favour of ragging. These are not just a pack of adolescents. The average age of the group as a whole is 21.64, and the S.D. is only 1.53. Nor are these all men: 43 of them are women. This latter finding questions the belief that campus trouble-shooters are always men, and that women are anywhere tender-minded. In fact, if as Eysenck (1960) believes, tough-mindedness is a projection of the extraverted

Table 1. Results of the Materialism/Spiritualism Scale and of the Temperament Scale

Variables	Raggers		Non-raggers		t
	Mean	SD	Mean	SD	
A. MATERIALISM/ SPIRITUALISM					
God	27.12	7.12	22.95	9.64	2.65**
Religion	24.32	9,11	23.95	10.73	0.93
Mysticism	24.83	6.03	22.23	7.15	2.07*
Spirits	14.97	6.45	11.89	6.53	2.43
Character	52.34	12.49	54.33	11.38	0.84
Psi	27.95	8.05	25.05	8.16	1.88
Total	173.58	31.72	159.81	41.20	2.07
B. TEMPERAMENT					
Maladjustment	10.84	7.40	11.87	8.25	0.68
Gregariousness	16.38	6.45	15.26	4.66	0.97
Thoughtfulness	21.34	5.15	22.13	4.75	0.80

**$p < 0.01$; *$p < 0.05$.

personality-type on to the area of attitudes, and tender-mindedness a projection of the introverted-type on to this area, we should naturally not expect just men only to be tough-minded or women always to be tender-minded.

It is generally believed that the Ragger is an abnormal person, or an asocial/anti-social individual, or an impulsive and extraverted youngster. But in the present study, in the traits of Maladjustment, Gregariousness, and Thoughtfulness, the Ragger is not found different from the Non-ragger. Similarly, the layman would expect a Ragger to be a non-believer. But the actual finding here is almost the opposite, In the first blush, this looks quite surprising, and like a contradiction of earlier works in the area (Ligon, 1939; Jones, 1954; Woodruff, 1945; Manwell and Fahs, 1951). But on closer examination, the contradiction dissolves, for, in the Spiritualism-Materialism scale, although the Raggers are found greater believers in God, religion, and the like, they turn out to be less concerned with morality, kindness, and such ethical qualities. So, the conclusion to be drawn seems not that religion produces anti-social behavioural tendencies and disbelief in character, but that religion and religious practices as they stand today fail to inculcate in young minds the right kind of values and attitudes necessary for healthy social living.

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A STUDY OF NEED AFFILIATION IN ANXIETY NEUROSIS A PRELIMINARY STUDY

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To study the need affiliation in anxiety neurotics, two groups i.e., anxiety group (N=20) diagnosed by mental health team and normal group (N=20) were taken. SSI was used to screen the subjects and EPPS was administered to measure the personality variables. Results showed that : (1) There is less tendency among the anxiety neurotics to have need affiliation but, (2) more need of achievement, deference, order, succorance, abasement, nurturance, and endurance as compared to normals. (3) They also show less need of exhibition, autonomy, affiliation, intraception, dominance, change, heterosexuality and aggression.

Introduction: Affiliation means a voluntary association or connection with other persons. Any evidence of concern over establishing or maintaining a positive affective relationship with another person is viewed as symptomatic of motivation to affiliate (Shipley and Veroff, 1954). Affiliation is one of the instinctive needs of man (Trotter, 1920), which is acquired (Sumner and Keller, 1927). It starts right from infancy, i.e. attachment to the caretaker and changes markedly in characteristic forms and targets with developmental level. This need for affiliation differs from individual to individual and also within the same individual under different situations. Arousal of any strong emotion evokes need to affiliate (Schachter, 1959).

Anxiety is one of the emotive states Everyone is anxious at one time or another. Anxiety is a normal response to threats directed towards one's body, possessions, way of life, loved ones or cherished values. It becomes pathological when:-(1) it is disproportionate to objectiv e danger, (2) it involves repression and other forms of intrapsychic conflicts, (3) it is managed by means of various forms of retrenchment of activity and awareness such as inhibitions, the development of symptoms and varied neurotic defense mechanism. A recent study by Sarnoff and Zimbardo (1961) had shown that individual under experimentally aroused anxiety state tend to isolate from others while individual in fear state tend to affiliate.

AIM: (1) To study relation between anxiety and affiliation. (2) To study differences in personality needs between anxiety group and normal.

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SAMPLE: Two groups have been studied i.e. a normal group (control group) and an anxiety group (experimental group). Both the groups consisted of 20 subjects each. Both male and female with different age and education levels ranging from SSLC to post-graduation (who were having sufficient knowledge of English) were included in each group. Experimental group consisted of those patients who were diagnosed as anxiety neurotics by mental health team (consisting of clinical psychologists, psychiatrists and psychiatric social workers) of NIMHANS between March 1979 to May 1979. Control group consisted of those hospital employees and some outside people who did not seek psychiatric help at any time.

PROCEDURE : Symptom sign inventory (Foulds, 1962) was given to each subject of both the groups to confirm diagnosis in experimental group and to rule out any anxiety symptoms in the control group. Later Edward's Personal Preference Schedule or EPPS (1959) was administered to each subject individually and subjects were helped where ever they found difficult to comprehend questions because of difficulty in following English. Test situations for both the groups were kept similar as far as possible. EPPS measures 15 personality variables one of which is need for affiliation. Each EPPS protocol was scored as per instructions given in manual.

RESULTS :

TABLE I

Sample Characteristics

		Normal	Anxiety
Age*	Range	20-38	17-51
	Mean	27.05	31.75
	S.D.	5.37	9.62
Sex	Male	8	14
	Female	12	6

Ordinal position	Normal	Anxiety
I	5	4
II	5	5
III	1	3
IV	4	3
V	1	1
VI	3	2
VII	0	0
VIII	0	1
IX	1	0

*t=0.578, p=n.s.

Discussion : The present study was undertaken in order to see if there are any differences in the need affiliation of anxiety neurotics when compared with normals. So far studies have not been done on clinic population but there are some studies on normals under experimental condition (Sarnoff and Zimbardo, 1961). It has been found that individuals under aroused conditions tend to affiliate more than others. In the present study it has been found that need for affiliation in anxiety

TABLE II
Scores on EPPS

	Normal group		Anxiety group		't' ratio
	Mean	S.D.	Mean	S.D.	
Ach.	14.45	3.73	15.00	3.78	0.463
Def.	11.50	4.14	15.45	3.28	1.103
Order	14.20	4.43	16.60	4.31	0.549
Exh.	12.05	3.71	11.70*	4.12	0.089
Aut.	16.15	3.79	13.75*	3.01	0.702
Aff.	14.25	4.94	12.35*	5.08	0.379
Intra.	17.35	5.06	14.50*	3.63	0.646
Succ.	10.65	5.41	14.20	4.86	0.556
Dom.	14.60	3.56	13.00*	3.29	0 466
Aba.	13.55	5.39	16.40	4.85	0.555
Nur.	16.40	4.50	18.90	4.27	0 571
Chg.	14.50	4.15	13.45*	5.57	0.241
End.	15.65	5.16	16.20	4.56	0.113
Hetra.	8.95	5.45	6.75*	5.62	0.381
Agr	15.65	3.99	12.35	4.79	0.727

*These values are less in anxiety group as compared to normal group. None of t-values was significant.

group is less than in the normal group, but the findings are not statistically significant. There is a possibility that there may not be real differences in the need affiliation of two groups, but the question is why not ?

One reason may be that testing situations were alike for both the groups and not dissimilar as shown in other studies. (Sarnoff and Zimbardo, 1961). Another point to remember is that in the present study the anxiety of experimental group was their natural state and gradually developed and was not experimentally aroused as in previous studies (Sarnoff and Zimbardo. 1961). One of the factors which may explain the results of present study is that developmental process of need affiliation is same in both the groups. The other factor which can be respon sible for no differences obtained in the need affiliation of two groups is that there was no significant difference in the ordinal position between the two groups, as found in studies done by (Staples and Walter, 1961)

that first born and only children tend to affiliate more.

Limitations of the present study : (1) Since small sample is taken in present study hence, it is suggested that it should be replicated on larger sample. (2) Since majority of the literate individuals were included, the sample may not be adequate. (3) Questionnaire used may not be sensitive enough to detect the differences between the two groups.

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PERSONALITY AND MENSTRUAL DISTRESS : A PRELIMINARY STUDY

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Excessive stress and strain that women experience during menstrual cycle sometimes cause psychologica l decompensation so much so that it may lead to the manifestation of psychiatric symptoms, viz.. phobia, depression and anxiety (Golub, 1976). But it is not known as yet whether these factors lie predominantly in the physiologic or in the psychologic sphere. Using physiological measures like, skin-conductance and body temperature, Little & Zahn (1974), found that autonomic arousal was much higher during menstruation. Koppel, Lunde, Clayton & Moos (1969), on the contrary, using 4 different physiological measures of arousal failed to support such contentien. Likewise, in the psychologic sphere, using self-evaluation anxiety questionnaire, Abplanalp, Livingstone, Rose & Sandwisch (1977) reported that anxiety levels were independent of menstrual cycle, whilst, Coppen and Kessel (1963) reported that both anxiety and depression were evident not only in intermenstruum but in premenstruum as well.

Such inconsistent findings in the literature might be because these authors did not assess the personality get up of their subjects. It is difficult to ensure that subjects undergoing similar stress would experience similar tension. In this context, Coppen and Kessel (1963) pointed out that premenstrual irritability, tension and depression correlated significantly with neuroticism, but very few studies attempted to interpret results in relation to extraversion-introversion. Karen and Colin (1978) suggested that female with more traditional attitude towards the role of women in society tended to report more severe menstrual symptoms than those with more liberal views. The purpose of the present study was to axamine (a) whether there exists any phase difference in the subjective experience of menstrual distress and (b) whether personality get up of the individuals can in any way be contributory to such experience of distress.

METHOD

Subject : Thirty non-paid, unma-

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rried female students in their child-bearing period (mean age 21 yrs.) were selected randomly. They were reported to be free from any serious physical illness, gynaecological complications and psychiatric complaints. Their average age of menarche was 13 yr. and the average length of menstrual cycle was 30 days with a range of 27-34 days. They have never had taken any contraceptive and reported to have normal cycle for at least 6 months before the experiment began.

Phases : Subjects were tested for three different phases of cycle, namely 'intermenstruum' (1-2 days), 'premenstruum' (24-28 days) and 'postovulation' (15-20 days). These phases were selected and named following Venables and Christie (1975).

Tests : (a) The Menstrual Distress Questionnaire (MDQ) : The MDQ is a self-rating questionnaire consisting of 47 symptoms. The subject is required to rate her feelings against each item on a six-point scale ranging from' no experience' to 'acute' experience of symptom. These symptoms were intercorrelated and factor analyzed by Moos (1968) to give eight symptom clusters, viz., PAIN, NEGATIVE AFFECT, WATER RETENTION, BEHAVIOUR CHANGE, AUTONOMIC REACTION, AROUSAL, CONCENTRATION AND CONTROL. (b) The Kundu's Introversion-Extraversion Inventory (KIEI) : The inventory is self-administering developed according to Indian socio-cultural pattern (1974). The inventory consists of 70 items with uneven number of response choices divided into 5 blocks.

Procedure : Initial interview was conducted with each subject to ensure that she was free from any sort of abnormality in relation to her menstrual cycle. (The guideline as given by Chatterjee 1973). Then each subject was administered MDQ and was asked to rate her feelings, as they were, in the three different phases of her most recent cycle. Subsequently the KIEI was administered individually in a single session by the same experimenter (MD). Subjects were tested in their 'intermenstruum' period only.

RESULTS AND DISCUSSION

Results showed that in all the symptom clusters the mean scores were highest in 'intermenstruum' and lowest in 'post-ovulation' and feeling of distress was much more intense in introverts. The obtained results showed that the subjects experienced headache, backache (Pain cluster), dizziness, nausia, vomiting (Autonomic Reaction), irritability, tension and depression (Negative Affect) most intensely during 'intermenstruum' and least during 'post-ovulation'. Their feeling of these during 'premenstruum' was

slightly lesser than that of 'intermenstruum'. Thus the present findings are parallel to those of Moos (1968) and Sampson & Jenner (1977).

One internal inconsistency in the present findings is that the 'Arousal' cluster did not show any significant phase difference. Thou-

TABLE I

The mean difference (t-test) between phases in eight clusters of symptoms.

N=30

Symptom Clusters	PHASES 1 & 2	1 & 3	2 & 3
PAIN	4.5***	6.8***	5.1***
Concentration	2.6*	5.2***	2.7*
Behaviour change	5.2***	5.9***	2.8**
Autonmic Reaction	3.4**	5.4***	2.5*
Water Retention	1.4	3.3**	2.5*
Negative Affect	3.5**	4.2**	2.6*
Arousal	1.8	1.0	.6
Control	3.8**	4.4**	2.9

TABLE II

The mean difference ('U' test) between introvert and ambivert groups in eight clusters of symptoms.

$N_1=12$, $N_2=18$

Symptom Clusters	PHASES 1	2	3
Pain	5.0***	36.0***	50.5*
Concentration	25.0***	51.5*	59.5*
Behaviour change	32.5**	76.0	84.0
Autnomic Reaction	51.5*	67.0	126.5
Water Retention	56.5*	27.5***	29.0***
Negative Affect	8.5***	27.5***	64.0
Arousal	75.5	37.9**	64.0
Control	35.0***	54.5*	74.0

***=p<.001, **=p<.01, *=p<.05.

TABLE III

The mean and SD of two groups, viz., introvert (I) and ambivert (A) for eight symptom clusters.

Symptom Clusters	PHASES											
	1st				2nd				3rd			
	I		A		I		A		I		A	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Pain	31.3	4.3	10 0	3 6	14.8	3 9	9.3	3.8	9.3	3.6	6.4	1.3
Concentration	19.0	6.0	11.0	4.0	14.7	6.7	10.0	3.0	11.0	2.8	8.8	1.6
Behaviour Change	17.5	5.1	12.4	3.8	9.4	4.4	8.1	5.9	6.6	2.6	6.0	2 4
Automatic Reaction	9.6	4.3	6.2	2.5	6.8	2.5	4.9	2.1	4.8	1.4	4.4	1.0
Water Retention	8.3	3.1	5.7	2 7	6.8	3.9	5.6	2.2	5.6	1.7	4.6	1.3
Nega tive Affect	25.8	6.7	12.4	3 8	19.3	6.3	11.5	4.1	13.4	5.8	10.1	4.6
Arousal	11.0	3.6	7.7	2.7	10.7	5.6	6.2	1.5	10.4	5.7	6.8	3.0
Control	11.5	4.5	7.7	2.2	8.8	2.1	7.1	2.1	7.2	1.6	6.4	0.8

gh, a similar trend was evident in Moos's (1968) original study using MDQ with 839 Western women (where, the mean scores for the 'Arousal' scale during 'intermenstruum', 'premenstruum' and 'postovulation' phase were 9.53, 9.75 and 9.84 respectively), it seems justified to comment on such a peculiar trend of the result. If intermenstrual and premenstrual tension can lead to suicidal attempts (Mandell & Mandell, 1967), violent crime (Dalton, 1961) and even manifestation of psychiatric symptoms, like depression, anxiety (Golub, 1976), obviously one could expect some sort of difference in the arousal mechanism of the subjects during 'intermenstruum' and 'premenstruum' in comparison with 'postovulation'. This argument can further be substantiated when we find many research evidences regarding high autonomic arousal during 'intermenstruum' and 'premenstruum' (Little & Zahn, 1974) as was assessed through physiological parameters like skin conductance (SC).

In a previous study we (unpublished data) have found non-significant difference in autonomic arousal (SC) between pre and inter menstrual periods. Such inconsistency in the findings might be because the subjects fail to express the effect of arousal completely on the basis of self-rating indices and such evaluation may be subject to falsification for various reasons (Speilberger, 1972). Mandler, Mandler and Uviller (1958), in this connection also pointed out that the subjects in this type of research seem to be notoriously unable to identify or describe their autonomic activity. One possible way to obviate this difficulty is to use objective physiological measures.

Secondly, the concept of arousal has been approached differently by different theoreticians. Some researchers think that autonomic reaction as such constitute what is know as arousal, whilst in the Moos's MDQ, he has made a separate symptoms cluster, namely,'Autonomic Reaction' in addition to'Arousal'. Similarly, in some self-rating scales (Bond & Lader, 1974) items like, 'alertness', 'attentiveness' etc. are used to score general vigilance of the subjects, whilst in Moos's MDQ, under the symptoms cluster 'Arousal' terms like 'affectionate', 'orderliness', 'feelings of well being' etc, are used. Furthermore, in the former, when negative answer indicates a positive feeling. the authors (Bond & Lader, 1974) suggested a reversed score for that. But in Moos's MDQ all the items are given equal value, no matter whether it expresses a positive feeling or a negative one.

Thirdly, Moos (1968), in his study with Form'A' of MDQ asked his subjects to rate their feelings retrospectively, as they were during

'intermenstruum', 'premenstruum' and 'post-menstruum' phases. It is not known whether he tested all his subjects during a specific phase of the cycle only. Assuming that they were not tested during any specific phase, they might have failed to give clear retrospective imagination about their feelings as they were in other two phases of cycle. They might have exaggerated their feelings about that particular phase when they were tested. But in the present study all the subjects were tested at a definite phase of cycle only, that might be the reason for obtaining a larger difference in the arousal score (though non-significant) between the inter and pre menstruum than those of the Moos's results.

Of course, one could argue that lack of differentiation in arousal among the three phases presumably reflects the marked inter-individual variability, subsequent analysis of the present findings, regrouping the subjects as introvert and ambivert, revealed a significant difference in the experience of menstrual distress between these two groups. Introverted subjects experienced pain, tension etc. more intensely (Table II) than did ambiverts. Our present findings are in line with Karen and Colin (1978). Whether such intense feeling of distress in introverts is due to their more feminine and orthodox traditional attitude towards the role of women in society (Karen and Colin, 1978) or due to their more excitatory potentiality (Eysenck, 1959) can not be decided at the moment on the basis of this study. Subsequent analysis of the data revealed that even amongst introvert, higher the introversion score higher was the feelings of pain. Our curiosity to find out correlation between personality get up and 'Pain' scores only could be questioned. Since pain has been reported to be the most prevalent and important symptom of menstruation (Sutherland & Stewart, 1965), it was thought to investigate this particular factor only in this study.

One definite limitation of the present study is that two extreme personality groups, viz. extravert and introvert should have been selected and tested. But non-availability of the extreme extravert women within this time period when this study was conducted compelled us to compare ambiverts and introverts.

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A FACTOR ANALYTIC STUDY OF MENOPAUSAL SYMPTOMS IN MIDDLE AGED WOMEN

S. N. INDIRA AND V. N. MURTHY

Factor analysis of responses of 105 middle aged women to a thirty item menopause symptom checklist resulted in three factors accounting for a major part of the variance. The factors were identified as a Psychological factor, a Somatic factor and a Vasomotor factor. The implications of the findings to a proper appraisal of menopausal symptoms and the similarity of the findings to those reported by Greene (1976) are discussed.

Menopause in the female is perhaps the most striking event occurring during middle age. A number of somatic and psychological complaints are ascribed to menopausal changes. Such symptoms embrace almost all the systems of the body. The significance of subjective symptoms reported by women in this period has long been overlooked. Malleson (1956) states that down the ages menstruating woman has been degraded as unclean and, the tribulations of menopause have been tacitly accepted as belonging to the same disgraceful heritage—a condition not to be admitted at all.

Attempts to delineate symptoms characteristic of menopausal phase of the climacterium have resulted in considerable debate. Blatt Menopausal Index (Blatt, Wiesbader and Kupperman, 1953) and the Menopause check list of Neugarten & Kraines (1965) are perhaps the most widely used instruments to assess menopausal symptoms. Greene (1976), however, criticizes the common practice of arriving at a single index by adding various symptoms together as arbitrary. He identifies three different factors in his factor analytic study. The need for proper understanding and appraisal of menopausal symptoms cannot be over emphasised. This study aims, (a) at clarification of the relationships between symptoms presented by middle aged women that are often termed 'menopausal' and (b), to see if factors similar to those reported in western culture would emerge in Indian conditions also.

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Paper presented at X IACP convention, Bangalore, December 1979.

METHOD

Sample : The subjects were 105 women in the age range of 36 to 50 years which is often designated as middle age for Indian women. Mean age was 43.31 years (S.D. of 1.62). Most of them were Hindus (N=94), from middle and lower middle socio economic level and were housewives not gainfully employed outside home (N=80). The selection criteria were – that these women were not pregnant, they were not diagnosed as suffering from either carcinomaor from uterine prolapse and they were not suffering from any serious systemic diseasen. Women meeting these criteria weres elected from Gynecology out-patient clinics of General Hospitals and clinics of Private practitioners. The sampling procedure was purposive. Most of the women were seeking help either for minor gynecological problems or were attending for check up.

Assessment of Symptoms : A 30 item checklist was prepared. The items were derived from Greene's (1976) and Neugarten and Kranines' (1965) checklists. Each item was read out and the women were asked whether they experienced the symptoms mentioned and if so, to what extent, mild, moderate or severe.

Factor Analysis: Symptoms were scored on 4 point rating scale. A score of 1 was given if symptom was mild, 2 if moderate and 3 if severe. A score of 0 indicated that the symptom was absent. Scored responses were factor analysed. The method adapted was the method of 'Principal Component Analysis'. For factor extraction, Eigen values equal to or greater than 1.0 (Rummel, 1970) were considered. Obtained factor matrix was subjected to Varimax rotation. To select significant factor loadings, the standard error of correlation was calculated (Harman, 1976). Only those factor loadings which were significant at .05 level were considered.

RESULTS AND DISCUSSION

Factor analysis yielded eight factors. The first three factors accounted for 68.13% of the variance. Table I shows the symptoms subsumed under the three factors and the factor loadings. The **first** factor loaded significantly on symptoms like 'lost interest in most of the things', 'crying spells', 'worry about nervous breakdown' and such other. This factor (13 items) was identified as **'Psychological factor'**. The **second** factor (3 items) was called **'Vasomotor factor'**. There were six items in the **third** factor referring to various physical complaints, called **'Somatic factor'**. The rest of the factors accounting for a small portion of the variance each were not so clear cut. The results, however, imply that since menopausal symptoms fall into three independent symptom clusters, a proper appra-

TABLE I

Symptoms subsumed under the first three factors and factor loadings.*

S. N.	Symptoms	Factors		
		Psychological	Vasomotor	Somatic
1.	Hot flushes	—	.82‡	—
2.	Cold sweats	.30	.85‡	—
3.	Weight gain	—	—	—
4.	Flooding	—	—	—
5.	Rheumatic pains	—	—	.45*
6.	Aches in back of neck and skull	—	—	.32*
7.	Cold hands & feet	.27	—	.72*
8.	Numbness & tingling	—	.36*	.60‡
9.	Breast pain	—	—	—
10.	Constipation	—	—	—
11.	Diarrhoea	—	—	—
12.	Skin crawls	—	—	—
13.	Fatigue, lack energy	.31	.25	.41‡
14.	Headaches	—	—	—
15.	Pounding of heart	.36	.26	.54‡
16.	Dizzy spells	.39‡	—	.35
17.	Blind spots before eyes	—	—	—
18	Irritable, Nervous	.69‡	—	.37
19.	Blue, depressed	.73‡	—	—
20.	Forgetfulness	.40‡	—	—
21.	Excitable	.62‡	—	.29
22.	Sleep disturbance	.67‡	.33	—
23.	Poor concentration	.51‡	.25	—
24.	Crying spells	.76‡	—	—
25.	Feeling of suffocation	.42‡	—	—
26.	Worry about body	.62‡	—	—
27.	Fright, panic	.66‡	—	.34
28.	Worry about nervous breakdown	.70‡	—	—
29.	Lost interest in most things	.79‡	.27	—
30.	Pressure/tightness in head & body	.31	.71‡	—

*Only factor loadings which are significant at .05 level are reported here.

‡Items considered to constitute the given factor.

sal can not be mode by merely summing up the symptoms arbitrarily.

Greene reports three factors accounting for 38% of the variance in his study and identifies them as a General somatic factor, a Psychological factor and a Vasomotor factor. In this study 22 items were subsumed under three factors accounting for 68% of the variance and the factors are similar to Greene's findings. There is considerable agreement between the findings of the two studies, regarding symptoms considered 'Psychological'. In both the studies, hot flushes and cold sweats are readily considered as vasomotor symptoms. However, symptoms—cold hand and feet ; aches in neck back of skull which are associated with vasomotor symptom in Greene's study are grouped under Somatic factor here. Pressure or tightness in body or head is associated with vasomotor symptoms in the present study. Such differences may be due to cultural factors. Several authors (Maoz et. al., 1970 ; Zola, 1966) have reported cultural differences in experienceing and reporting of symptoms.

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REDUCTION OF DISRUPTIVE BEHAVIOUR OF BOYS OF THE 8TH GRADE THROUGH OPERANT CONDITIONING

PRABHA GUPTA & LAWRENCE PINTO

The present study aimed at reducing the frequency of disruptive behaviour to a level acceptable to the teachers (less than 20%) in four boys of the 8th grade by the application of operant conditioning techniques and bringing this rate ultimately under the control of natural consequences. The sample consisted of four boys ranging in age between 12-14 years. ABA design was employed. The average 'disruptive' behaviour was 3.35 per minute during baseline and .28 per minute during the experimental period. They maintained the reduced level even after withdrawal of punishment.

The importance of attention, praise, nearness and other social stimuli produced by the behaviour of adults in maintaining both deviant and prosocial behaviour of children has been repeatedly demonstrated with preschool children (Ayllon et al. 1964; Cohen 1968; Dratman et al. 1974; Patterson et al. 1967). While positive habits can be developed through reward, the elimination of socially disapproved habits constitute a far more complex problem. The latter may be extinguished by being consistently unrewarded. However, an antisocial behaviour cannot simply be ignored in the hope that it will gradually extinguish. Punishment in the form of administration of negative stimuli may often be used to rapidly eliminate a socially undesirable behaviour (Appel, 1962; Bostow et al. 1969; Foxx et al. 1972; Poterfield et al. 1976; Wolf et al. 1964).

Problem : Reduction of the rate of disruptive behaviour to a level acceptable to the teachers (less than 20%) by the application of operant conditioning technique, and to bring this rate ultimately under the control of natural consequences.

The setting : The study was carried out on four boys of the 8th grade of St. Francis' College, Lucknow. Their ages ranged from 12 to 14 years.

Selection of Targets Children

The second author of the present paper initially spent time observing the boys in classroom of the 8th grade. Three 15 min. observations, spaced throughout each day were made for 2 weeks. This was

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followed by discussion with the teachers of possible problem children. Finally four most disruptive children were selected.

Rating categories : The method of observation was similar to that developed by O'Leary and his associates for monitoring disruptive classroom behaviour (O'Leary, et al. 1971). The observational code consisted of the following defined categories.

1. Out of Chair : Movement of the child from his chair when not permitted or requested by the teacher. It can only occur when no part of the child's body is touching the chair. **2. Non-Compliance** : Failure to initiate the appropriate responses requested by the teacher. **3. Noise** : Child creating any audible noise other than vocalization that is not task — oriented. **4 Vocalization** : Any unpermitted audible sound emanating from the mouth. **5. Playing**: Child uses his hands to play with his own or community property when such behaviour is incompatible with learning. **6. Touching** : Child used his hand or extended object to touch another person's property. **7. Time off task** : Child does not do assigned task for the entire one minute interval. **8. Orienting** : The turning or orienting of the child by more than 90 degrees from the point of reference (such as the desk, teacher, black-board etc) **9. Aggression** : The child makes movements toward another person so as to come in contact with him, whether directly or by using a material object as an extension of the hand.

Research Design :The A B A Design was adopted.

Phase 1. Baseline Measure, measurement of the operant level. Target children were observed for 5 minutes a day for seven days. A few exceptions occurred due to absences. The class-teacher watched a child for 1 minute and then recorded for 1 minute the classes of disruptive behaviour which had occurred, None, one or more categories could be recorded for each interval. After observation of one child, the teacher repeated the observation procedure for the next child and so on till all the four children had been observed. When finished, the teacher began observation of the first child again. This was repeated five times a day, thus totaling to 5 minutes observation and 5 minute recording sessions per day. In all a total of 35 minute observation session was alloted to each child. This produced a more representative sample of a child's behaviour. The activity in which the children were involved varied considerably from time to time, and contributes to the fluctuations. The number of disruptive behaviours per one minute interval were counted and recorded.

Phase 2. Conditioning, application of punishment

Following a one week long baseline period, the class teacher was given the following instructions for the experimental period. 1. Make rules explict as to what is expected of children. 2. Give reproof to disruptive behaviours. Tell the child what he is being reproofed for. 3. Each unit disruptive behaviour to be punished by calling the child 'bad boy', making him 'stand up' or staring at him angrily. The continuous schedule of punishment was followed for 3 days.

Phase 3. Gradual withdrawal of punishment: In this phase continuous punishment was made intermittent by a fixed ratio schedule to stablize and maintain desirable behaviour. 50% punishment was given for six days followed by 25% punishment for 3 days. The expected target behaviour was fixed at less than 20% of the baseline measure.

Phase 4. Post Experimental Check: Follow up observations were made three days after the termination of phase 3. They extended over a period of three days.

Results : Comparison of means of seven days for each subject (Table I) indicates that each child's operant level for disruptive behaviours was relatively stable. The application of contingent punishment was effective in reducing the disruptive classroom behaviours. The contingent punishment phase was followed by the 50% punishment period for 3 days. Table II shows that in the case of subject B the mean disruptive behaviour increased slightly at this stage. For this reason, the administration of 100% punishment was reverted to for the next 3 days for him. For the other boys 50% punishment was continued for another 3 days as there were no significant decreases in disruptive behaviour. After six days the means for the subjects were much below the baseline means. On observing the declining rate of disruptive behaviour punishment was reduced to 25% for the next three days. Disruptive behaviour showed a further decline. Since at this stage the expected target (20% of the baseline measure) had been achieved the experiment was discontinued.

Follow up observations conducted after a lapse of three days showed that behaviour modification effected through operant conditioning was maintained, indicating that complete withdrawal of punishment produced no relapse. Behaviour reduction had come under the influence of the reinforcers naturally operating in the situation. The classroom behaviour of the experimental subjects was now acceptable to the teachers and required no special efforts on their part to maintain it.

Table I

Mean disruptive behaviours per minute during baseline period

Subjects	Days 1	2	3	4	5	6	7	Mean
A	3.5	2.6	3.5	2.6	3.8	3.8	4.0	3.7
B	3.3	3.5	4.2	2.6	3.0	3.4	3.0	3.3
C	4.4	3.4	3.5	2.8	3.4	3.2	3.6	3.5
D	3.4	3.1	4.0	3.0	2.6	2.6	2.6	3.0

Table II

Mean disruptive behaviours in various Experimental Phase

Experimental Phases	Operant level 0% P	Conditioning 100% P	Intermittent Punishment Schedule 50% P	50% P	50% P	Post experimental check 0% P
No. of days	7	3	3	3	3	3
Subjects	Mean	Mean	Mean	Mean	Mean	Mean
A	3.7	2.3	2.7	1.3	.33	.30
B	3.2	2.1	2.8	1.1 (100% P)	.20 (5% P)	.22
C	3.5	2.2	2.3	1.3	.28	.28
D	3.1	1.8	1.8	1.0	.33	.30

P = Punishment.

Thus the ultimate purpose of the study was achieved.

Implications : The results of these investigations demonstrate that teachers can learn to effectively apply behavioural principles to modify the behaviour of problem children. Much can be done by the classroom teacher to eliminate behaviours which interfere with learning without having to rely on massive changes in the home, or intensive therapy.

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LEVEL OF INTELLIGENCE OF ADVANTAGED AND DISADVANTAGED CHILDREN

QUAISAR JEHAN AND P. AHMAD

Fifty advantaged and fifty disadvantaged children were identified on the basis of Kuppuswamy's socio-economic status scale. They belonged to the age range of 5-9 years and grade level upto 3rd. Seguin Form Board test of intelligence was administered on each of the Ss individually. Result revealed that the mean I.Q. of the advantaged group of children was much higher (107.1) then for the disadvantaged group of children (82.7). Parental eduction, occuption, income and the living condition of the child plays significantly important role in intellectual development of the child.

Introduction :Intelligence is a complex cognitive process being affected by a number of known and unknown variables. Environment casts a good deal of influence on the mental development of the child. The development of intelligence of the child takes place according to the environment at home, in family, in school and in the community. If the environment is healthy and conducive, the development shall be good but if it is bad then the development shall be adversely affected. The child growing in poverty is unable to acquire the skill to deal with the complexity of modern society. The result is that the children of those parents have not only an inherited low level of intelligence but also a deprived environment which prevents any improvement in their conditions. Child psychologist and psychiatrist, paediatrician are now becoming aware of the effect of social class on the mental and physical growth of the child. Education, occupation, living conditions, income of the parents and the environmental surrounding have been known extrinsic factors influencing intellectual development (Bayley and Jone, 1937; Amesur, 1962; Monekeberg et al. 1972; Duetsch, 1973 ; Gupta et al. 1975; and Mc-Gurk 1977).

AIM : The present study was planned to evaluate the effect of advantaged and disadvantaged class on intelligence.

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Paper presented in the Symposium on the Disadvantaged child at the R.A.K. College of Nursing, New Delhi in November, 1979.

Material and Method : The present study was conducted on one hundred children (50 advantaged and 50 disadvantaged). Socio-economic status was assessed by Kuppuswamy's socio-economic status scale (urban) (1960). They were brought by their parent/guardian at the Paediatric, O.P.D., of J. N. Medical College, Aligarh, for seasonal vaccination or general check up. The two groups of children belonged to the age between 5-9 years and grade level upto 3rd. Children of advantaged group were from high social class and most of their parents were educated and were in good jobs. Living condition and environment was also good. Children of disadvantaged group were from low socio-economic status mostly born to illiterate parents who were working as unskilled, semi-skilled labourers, petty shop keepers, chaprasies and ward attendants. Living conditions and social environment were also poor. All the children were administered a non-verbal and culture free test of Intelligence (Seguin Form Board). The test was administered individually after gaining the confidence and cooperation from the children.

Result and Discussion : The main findings from the present study are that on the intelligence test, the children of the advantaged class scored well above the children of disadvantaged class. One of the extrinsic variable which could be responsible for these differences is the significant difference in the socio-economic conditions at home and the social and intellectual stimulation at school as the children from high socio-economic class go to convent schools and other better schools. The mean I. Q. of the advantaged group of children was significantly ($t = 9.56$, $p. < .001$) higher (107.1) as compared to the disadvantaged group children which was 82.7. Jensen (1969a, 1969b) clearly demonstrated that lower socio-economic level to be primary factor responsible for poor physical growth and intellectual functioning of children. About 70% children belonging to advantaged class showed I. Q. above 100, whereas nearly 90% of disadvantaged class children had an I. Q. below 100. Jones (1954) reported that environmental opportunities substantially influence intellectual development. Yule et al (1975) in their study of children of west Indian immigrants have reported that the intellectual performance and educational attainment of children from immigrants families was lower than the children from non-immigrant families. Thus education, occupation living condition, income of the parents and the environmental surroundings are important factors influencing intellectual development.

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SHORT FORM OF MASLOW'S SECURITY INSECURITY INVENTORY -Further Validation

K. SATHYAVATHI

In an attempt at further validation of the Short Form of Maslow's Security Insecurity Inventory, it was individually administered on group of 30 normal and 34 neurotic subjects. Scores for the full inventory, short form and the score on the full inventory minus the score on the short form were calculated. The results were : (a) Neurotics gave significantly higher scores than normals on both the short form as well as the full inventory; (b) The obtained high positive correlation and regression values indicated that the short form serves the purpose of the full inventory very well.

Necessity for short forms of questionnaires and tests needs no overemphasis in the clinical field. Some of the short forms are like Bendig's (1956) MAS, Eysenck's (1959) MPI, Center's (1963) Authoritarian Equalitarian Scale (California F scale), Murthy's (1966) Bhatia's Performance Test to mention only a few.

According to Maslow security is synonimous with mental health. Jamuar and Singh (1973) report a correlation of .89 between insecurity and neuroticism. Sathyavathi and Indira (1977) found a correlation of .89 and .77 for normals and neurotics respectively between the scores on Security Insecurity Inventory and that of Bell's Adjustment Inventory. Shrivastava and Japil (1972) have attempted at a short form of Security Insecurity Inventory of Maslow and finally Shrivastva (1976) as derived a short form of it consisting of only 24 items from the original 75 items. High reliability and validity is reported for the short form of the inventory by him.

AIM : The aim of the present study is to attempt at further validation of Shrivastava's Short Form of Maslow's Inventory.

METHOD AND MATERIAL : The study groups comprised of 30 normal and 34 neurotic males matched on sex, age, education and marital status. Maslow's Security Insecurity Inventory was administered to the subjects in the two groups individually. Three scores were obtained for each of the subjects viz (a) score on the Full Inventory; (b) score on the Short Form of the Inventory and (c) score on Full Inventory minus the score on the Short Form.

Results and Discussion : Both the mean scores of the full as well as the short form of the inventory differentiate the normals from the neurotics. It supports the expected findings that the neurotics are the individuals with problems of insecurity.

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Table I

Mean scores of the normal and the neurotic subjects

	Full Inventory		Short form of the Inventory	
	Normals	Neurotics	Normals	Neurotics
Mean	18.7	28.42	5.6	8.9
S D.	10.04	15.47	3.36	5.35
t	2.955		2.726	
Sig. level.	.01		.01	

Table II

Validity coefficients of the short form

Variable	Normals r	Neurotics r
Full inventory Vs Short Form	0.879	0.957
Short Form Vs Full inventory minus Short Form	0.725	0.882

Note : all r are significant at .001 level.

Table III

Regression and F Values

	Normals	Neurotics
Regression values	2.8325	3.196
Sig. level.	.001	.001
F Values	34.0421	34.8585

The positive and high correlation observed clearly indicates that the individual who gets a high score on the Full Inventory is likely to get high score on the Short Form also or one who gets a low score on the Full Inventory is likely to get a low score on the Short Form also. To find out as to how far the scores on the Short Form are likely to predict the scores on the Full Inventory a regression analysis was done for the scores on the Short Form and that of the Full Inventory for the normal and the neurotic groups separately.

In both the normal and the neurotic groups the scores on the Short Form of the Inventory are highly predictive of the scores on the Full Inventory. This finding indicates that the Short Form can fairly safely be used for clinical or other quick screening purposes, in place of the Full Inventory.

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XI ANNUAL CONFERENCE OF INDIA Association of Clinical Psychologists

The XI Annual Conference of India Association of Clinical Psychologists will be held at Nagpur from 27th November to 29th November, 1980.

For more information write to the Organizing Secretary, Dr. C. A. Tewari, Clinical Psychologist, Govt. Mental Hospital, Nagpur.

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THE EFFECT OF INTERNAL—EXTERNAL LOCUS OF CONTROL ON ANXIETY

G. RAJAMOHAN & A KUPPAN.

Locus of control scale was used to measure the internality and I P A T Anxiety scale (Cattell) was used to measure the anxiety level of 225 male and 283 female graduate students in Madras City. The results showed that there is no significant relationship between Externals and Internals as well as between boys and girls in the level of anxiety. There is insignificant relationship between Internally oriented girls and boys and also between Science and Arts students on anxiety scores.

Introduction : Following the construction of Rotter's I-E Control Scale, studies relating to the concept of internal vs. external control of reinforcement have gained momentum. Little research has been reported with anxiety as one of the variables, especially with college samples in Indian setting. The present study represents an attempt to determine the effect of locus of control on anxiety.

Locus of Control, a construct generated within Rotter's social learning theory (Rotter, 1960) refers to the perception of a situation as controlled by chance, luck, fate, or "powerful others" versus by one's own behaviour. A respondent who scores external on the scale believes that the world is difficult, the world is unjust, the world is governed by luck, or the world is politically unresponsive (Collins, 1974). Anxiety is defined as the continuous and reportable experience of intense dread and foreboding conceptualized as internally derived and unrelated to external threat. Anxiety within limits definitely stimulates the individual to putforth hard work, while excessive anxiety interfers with the normal work and hinders the progress. From the view point of dynamic psychology anxiety functions as a drive and goads the person to various sorts of adjustment mechanisms. Everyone agrees that anxiety is not a unidimensional trust residing

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within the individual but is a complex behavioural event that is influenced by situational personality and more of response factors and their interactions (Endler et al, 1962 Haywood et al 1964) The people prone to feel anxiety, are associated with prevailing timidity, low self esteem and feeling of inferiority (Levitt, 1967) which are not likely to be present in internals. Individuals who respond with an internal control orientation are in contrast to their external counterparts, more likely to engage in social action for self improvement (Gore & Rotter, 1968) more concerned with skill and achievement (Rotter & Mulry, 1965) and more resistent to social influence under certain conditions (Strickland, 1965). Internally oriented Ss tend to be more independent, whereas those externally oriented display a kind of dependency. (Rajaratnam et al, 1978).

The present paper a part of a larger project, concerns with the following questions :— 1) Do externally oriented respondents have more anxiety than internals ? 2) Is there any significant relationship between science and arts students in the level of anxiety ? 3) Are internal girls more anxious than internal boys ? 4) Are externally oriented girls more prone to anxiety than boys with external orientation ?

Materials and Methods: Rotter Internal-External Locus of Control Scale, The IPAT Anxiety scale developed by Cattell were used. The reliability of the tests was found out using 89 undergraduate psychology students of Presidency College, Madras. The correlation coefficient used here is the split half co-efficient corrected by Spearman-Brown formula.

Reliability		Reliability Index.
I— E Scale	.53	.692
Anxiety scale.	.68	.809

The reliability is significant at the .01 level. In the absence of an adequate external criteria, internal consistency measures are used. The index of reliability was found out which is sometimes taken as a measure of validity (Garrett, 1962)

Subjects : Here the samples were drawn from the population of students enrolled in four different colleges, two men's colleges and two women's colleges at Madras. The S's mean age was 19 years and belonged to Arts and Science subjects representing all the different courses offered in those colleges. Internality group consisted of subjects whose scores were more than the mean + I SD. where as Externality group constituted those, whose scores were less than mean I SD. This procedure combined with the random sampling technique has yielded to the formation of four groups of equal numbers for each group without overlappings out of the total sample taken for the study. The distribution of sample is as follows :

TABLE I

Mean, Standard Deviation, and 'F' ratio for Anxiety Scores of different group

Name of the Group	Mean	SD	F Ratios
GROUP 'A'			
External	19.11	5.89	1.09
Internal	18.60	5.85	
GROUP 'B'			
Science Students	21.55	6.74	1.36
Arts Students	19.56	5.81	
GROUP 'C'			
Girls with internal orientation	23.46	7.36	2.46
Boys with internal orientation	20.23	4.84	
GROUP 'D'			
Girls with External orientation	21.76	6.86	1.93
Boys with External orientation	18.57	4.90	

Note : All 'F' ratios were statistically insignificant.

Group (a) Internally oriented students N=50

Versus

Externally Oriented students N=50

Group (b) Science students include M F-I-E N=40

Versus

Arts students include N-F-I-E N=40

Group (c) Internally oriented girls N=21

Versus

Internally Oriented Boys N=21

Group (d) Girls with external locus of control orientation N=25

Versus

Boys with external locus of control orientation N=25

Results and Discussions : The obtained values are presented in the Table I. In order to see the effect on the anxiety level of the various groups, the 'F' ratios were calculated. The obtained values of C. R for the four groups turned out to be non-significant even at 10% level.

The results obtained in the present study indicated that there was no significant differences in the amount of anxiety among the various groups of college students, except perhaps in the case of Group C Contrary to the findings of Devi (1969) and also that of Dutt and Brar (1972) there is no significant difference in the anxiety level of boys and girls in general. However a look at the mean values presented in the table gives the impression that females scored higher on the anxiety scale than the males. Moreover, girls with internal locus of control orientation scored high in the anxiety scale than did boys with the same personality dimension. This confirms the result obtained by Chatterji et al (1976), that females suffer more due to anxiety than the males. The choice of subjects namely science or humanities had no effect on anxiety, as well as on the locus of control.

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PSYCHOLOGICAL MANIFESTATION IN CANCER PATIENTS * (Preliminary study)

M. J. PATEL, B. K. SINHA, and M. L. GAWADIA.

One hundred patients of Cancer Surgery Department of M. P. Shah Cancer Hospital & Research Institute, Ahmedabad were studied with the help of clinical interview and personality inventory (TMAS). High percentage of cancer patients were found to be reacting with intense and disabiling effect of anxiety, tension, insecurity on the face of impending death. Many of them were manifesting severe depressive reaction also It was felt that Psychological disturbances of cancer patients are either ignored or overlooked by the surgeons and psysicians because of their preoccupation with treating the major illness.

Introduction : Relationship between emotional factors and human cancer has puzzled men. Cooper claimed that grief and anxiety were among the most frequent causes of breast cancer (Tyrrel 1826). Since then many authors have persued to evaluate this possible role of emotional factors in the etiology of cancer (Blumberg & Billis, 1954, Reznikof, 1955; Green & Swisher, 1956; Leshan & Worthington, 1956, Leshan 1959; Renneker, Cuttler & Hora, 1963; Simmon, 1966). From these data, possibility of following two personality constellation in people who suffer from cancer have become likely. One group emphasises on separation, loss and despair leading to onset of cancer (Green, Yound & Swisher, 1956, Leshan, & Worthington, 1956). Another group suggests repression, denial and emotional constriction as pre-existing in patients suffering from cancer (Sutherland et. al. 1952, Bonner, 1971).

Others have also tried to study the relations between emotion and prognosis, bur there is no conclusive outcome of these efforts. In recent years people have concentrated on more immediate problem i.e. emotional reaction of a patient to the presence of cancer and its effects

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(Pettingale et. al. 1977). Medical profession is aware of these problems and hence they have suggested to help the patients by psychological treatment (O'neil, 1975). It is said that psychiatry consultation has often proved to be a valuable adjuvant in medical care of the cancer patients, (Craig et. al. 1974). Most of these studies have been carried out by interview method. Only recently, Graig and his associate have tried to study this problem by administering a 90 items symptom check list inventary to 30 patients in Oncology research unit. They found that more than 50% has moderate to severe depression and 30% has high level of anxiety.

Recently, investigators in our country came out with interesting findings. Seth and Kapoor (1975), Saksena, Seth & Kapoor (1975) evaluated personality of cancer patients and compared them with control group and observed that cancer patients differed significantly with their controls on general personality dimensions on 16 P. F. Test. In 1978, Seth and Saksena studied the personality patterns of lung cancer patients. They found them to be more tense, emotionally less stable, more apprehensive, more tender-minded, more suspicious and conservative than their controls on 16 P. F. Test. Similarly, they observed difference in personality characteristics between male and female cancer patients (Seth & Saksena, 1978).

Aims and objectives : To conduct a preliminary study of cancer patients in general for evaluating their psychological disturbances, namely anxiety.

MATARIALS AND METHOD :

Simple : A purposive sample consisting of 100 indoor and outdoor cancer patients from the M. P. Shah Cancer Hospital and Research Institute, Ahmedabad was selected for the present study. These patients were seen there from 8/3/74 to 30/11/75. They were in the age range of 19 Yrs. to 70 Yrs. 75 patients were males.

Method. Data was collected through clinical interview and Taylor's Manifest Anxiety Scale (TMAS). Majority of hospitalized patients initially showed poor interest. But subsequently, after establishment of good rapport and communication about the purpose of such research-work, developed interest and co-operated with us. Due to poor educational background 20% of the patients could not comprehend/interpret the items of TMAS and were helped by the investigators.

Results and discussion. On Taylor's Manifest Anxiety Scale the mean score of cancer patients was 18.8 (SD=4.8). The mean Score was higher than the normal score range of 13 to 14.5. This means that most of the cancer patients of our study showed high degree of anxiety

ension. Our findings are in conso-
ance with the results obtained by
other researchers. Seth and Saxsena
(1978) found cancer patients more
tense, apprehensive, emotionally
less stable, more tender minded than
the control group. Sutherland,
Orback and Dyke (1952), Bonner
(1971) have also reported high
anxiety level in their cancer patients.
Besides, high degree of anxiety
manifested by the majority of the
cancer patients : the other psycho-
logical reactions that were elicited
from them in the course of clinical
interview were severe depression
patients broke down emotionally
while narrating their illness. Nine
were very resistant, used denial
mechanism probably to ward-off
severe degree of anxiety, tension and
insecurity generated by the illness.
Eight patients were so much con-
cerned and preoccupied with their
illness that they would hardly show
any interest in their surrounding.
Resigning and philosophical attitude
towards their illness were observed
in 10 patients.

Table I
Age and TMAS

Age group	N.	Mean score
18—30 yrs.	10	18
31—40 yrs.	15	19
41—50 yrs.	37	22.4
51—60 yrs.	22	17
61 and above	16	18

Very high score on TMAS was noticed in the age groups of 31—40 and 41—50 yrs. This may be associated with the general poor outcome of their illness. On the whole high anxiety level was noticed in all age groups of cancer patients.

As high as 75% of cancer patients were belonging to the later age group and old age (40+years) This observation is in consonance with the general onset of cancer which occurs mostly in the later age groups.

Table II
Education and TMAS

Educational Level	N.	Mean score
Illiterate	32	15.4
Primary education	52	14.5
High School	14	16.5
College	2	16.0

No significant variation in TMAS score were noticed due to the educational background of these patients.

Table III
Occupation and TMAS

Occupation	N.	Mean score
White coller Workers	16	17.42
House wives	25	19.00
Skilled workers	25	17.00
Un-skilled workers	25	16.00
Un-employed	9	18.00

House wives showed slightly more anxiety on TMAS in comparison to others On the whole, it appeared that the degree of anxiety and occupational status of the cancer patients were not related significantly. Anxiety perse may not be affected by particular occupation as it is affected by the disease process.

Majority of cancer patients exhibited high degree of anxiety, tension. They have to undergo great emotional turmoil because of the thoughts of imminent death that constantly

hovers in their mind. Severe anxiety reaction was noticed in one case which was referred to cancer hospital for ruling out any malignancy, who turned out to be a case of T. B. lympth adenitis. Atleast 15% of the cancer patients also showed depressive features and needed treatment. One 18 year male patient attributed the development of cancer to the early death of his father causing increased family and financial responsibilities on him at a stage when he was neither matured nor psychologically prepared to bear such heavy life stresses. Personality changes were also noticed in cancer patients. They develop cynical and pessimistic attitude towards life thus they withdraw gradually from active social living and lead isolated and inactive life in depressive manner. On the whole, it has been observed that those individuals who were victim of this dreadful, terminal illness, manifested considerable psychiatric problems. Psychological problems of cancer patients are mostly ignored by the surgeons and physicians in their enthusiasm of treating the major illness.

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RESPONSE TENDENCIES IN A QUESTIONNAIRE WITHOUT QUESTIONS

S. K. Verma, D. K. Menon and Anil Malhotra

A 12 item questionnaire without question devised on the lines suggested by Berg and Rapaport (1954) and Van Heerden and Hoogstraten (1979) with minor modifications, was administered to 70 normal adult subjects, 60% of them males, all educated at least upto matric, majority of them being graduates. Method was self administration. The results showed that there was a tendency to choose positive responses like "Yes", "true", "agree", "satisfied", "first" and "very certain" as opposed to the negative ones in the respective categories. In situations where no such judgement was involved, there was seen a tendency to choose the middle categories (or, to avoid the extremes). A comparison is also made with the two earlier reported studies of 1954 and 1979.

Introduction : The credit for bringing response tendencies into focus goes to Cronbach (1946) who defined them as "any tendency causing a person to give different responses to test items when the content is present in a different form." Guilford (1954, p. 451) describes response bias as " a response to a test item tends to be altered in such a way that it indicates something other than that which we intended it to measure". These response tendencies or biases are also called as response styles (Rorer, 1965) and response sets (Edwards, 1959; Cronbach, 1946, 1950; Verma 1975; etc.). A number of such tendencies have been described in the literature (Verma, 1975; 1977). Personality questionnaires are particularly sensitive to such response tendencies like the set to gamble, semantics acquiescence, tendency to endorse extremely worded answers, social desirability, etc. In framing questions also there is a need for caution (Verma, 1978).

In order to study such tendencies, Berg and Rapaport (1954) devised a technique of forcing the subjects to choose responses to questions which are not known to them. Heerden and Hoogstraten (1979) replicated their study in 1977 and confirmed the presence of their

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biases. The later study, in addition, did not find any sex bias or bias related to specific positions of options. This questionnaire without questions, after minor modifications has been used in the present study also to study such tendencies in our population.

Aims : 1. To find out if any response biases operate in a questionnaire without questions. If yes - then. 2. To find out what type of biases are there, and 3. To compare the response biases in the present study with those reported in the two earlier studies by Berg and Rapaport (1954) and Heerden and Hoogstraten (1979).

MATERIAL AND METHOD

Sample : Seventy normal adults in the age range of 16-35, employed or studying in the Postgraduate Institute of Medical Education and Research, Chandigarh, volunteered to take the questionnaire without questions. There were 42 males and 28 females in this group. All of them were having at least education upto matric, over 90% of them were graduates and above. Twenty three were medical graduate students, twenty two medical postgraduates and nineteen of them non-medical graduates or postgraduates.

Procedure : A questionnaire without questions was prepared on the lines suggested by Berg and Rapaport (1954) and Heerden and Hoogstraten (1979). Standard instructions were followed. Two of the items (I and V) were again presented (as items XI and XII) but in a different order to see if the valued choices are affected by their position also. The questionnaire was self administered. No explanations were given except for repeating the instructions to them, whenever the subjects felt uncomfortable in this unusual situation and wanted clarifications. Options were presented horizontally. No example was given. The purpose of the test was not told before the test. Subjects were asked to cooperate on this test, but were promised that the real purpose would be explained afterwards.

Results and Discussion : The data was analysed and the results are shown in Table I.

It is heartening to note that the majority of subjects, although they objected to in the beginning that it does not make sense, did at the end give their responses. In an earlier study, Heerden and Hoogstraten (1976) found that psychology fresh men do not hesitate to answar questions that contain a logical impossibility or have options that do not fit. Some of them could even guess the purpose of the test also, without telling them. But naturally those expected random answers to questions unknown were not found to be actually randomly distributed as can be seen from Table I. At least two response tendencies could be easily seen.

RESULTS AND DISCUSSION

The data was analysed and the results are shown in Table I

Table I Comparison of the three studies.

Item	Alternatives	Present siudy (1980)			Berg & Rapaport (1954)			Heergen &Hoogstrar (1979)		
		N	per-cent-age.	x^2	N	per-cent-age.	x^2	N	per-cent-age.	x^2
I	Yes	48	69	**	82	48	**	118	60	**
	Uncertain	12	17	39.21	43	25	16.5	31	16	63.66
	No	10	14		46	27		48	24	
II	1.	19	27	**	14	8	**	21	11	**
	2.	28	40	12.86	41	24	84.0	53	27	65.83
	3.	16	23		92	54		95	48	
	4.	7	10		24	14		28	14	
III	Very Satisfied	7	10		22	13		47	24	
	Satisfied	56	80	**	93	54	**	89	45	**
	Dissetisfied	7	10	114.80	40	24	85.0	32	16	44.56
	Very dissati-fied.				16	9		29	15	
IV	First	40	57	**	62	36		81	41	**
	Second	24	34	24,79	59	35	1.3	70	36	9.21
	Third	6	9		50	29		46	23	
V	True	46	66	**	118	69	**	118	60	**
	False	24	34	6.90	53	31	23.9	79	40	7.33
VI	A	22	31	**	31	18	**	54	28	**
	B	26	37	10.20	54	37	18.0	56	28	6.15
	C	12	17		47	28		53	27	
	D	10	14		29	17		34	17	
VII	Always	18	26	**				52	26	**
	Sometimes	40	57	19.13				91	46	14.25
	Never	12	17					54	28	
VIII	Agres	39	56	**	72	42	*	48	24	**
	Indifferent	15	21	15.80	52	30	6.1	117	60	24.88
	Disagree	16	23		47	28		32	16	
IX	0-1.5 cm	7	10					29	15	
	1.5-3.5 cm	16	23	*				49	24	
	3.5-6.5 cm	24	34	11.86				57	29	3.42
	6.5-8.5 cm	11	16					31	16	
	8.5-10 cm	12	17					31	16	
X	Very certain	37	53	**				78	40	**
	Indifferent	29	41	25.41				62	31	14.34
XI	Very uncertain	4	6					57	29	
	No	15	21	**						
	Yes	46	66	33.80						
XII	Uncertain	9	13							
	False	20	29	**						
	True	50	71	12.80						

*$p < .05$ **$p < .91$

One of the tendency seen could be called as a tendency to give socially desirable or valued responses. Examples are like choosing more frequently positive choices "First", "Yes", "True", "Agree", "Very certain". These involve judgements about things valued, commended in our culture. It is interesting to note that when two of such items were repeated with choices presented in reverse order (Item I Vs Item XI and Item V Vs. Item XII) even then those preferences for socially valued responses were maintained. Sixty nine per cent of the subjects selected yes on item I and 66 per cent in item XI. It shows that if the item is about valued behaviour, the chances are that no matter where you put it, people will tend to choose it with greater frequency. The order, or position of the choice is not so important a consideration.

The second response tendency that was seen was where the choices were supposed to be just categorisation (i. e. on nominal scale) without any value judgements implied by them, Examples are Item II (1, 2, 3, 4,) or Item VI (A,B,C,D) or Item IX (0-1.5 cm, 1.5-3,5 cm, 3.5-6.5 cm etc.) Here the extreme responses were avoided and middle categories were selected more often, although a slight trend toward the choice first presented as opposed to the last choice was still visible. In case of items III and VII also this tendency could be seen though a positive and first presented choices ("Very satisfied" and "Always" respectively) were there. Perhaps in the later case, the implied extreme response might be making them a less selected response. It could also be a function of the large number of categories, greater the number of choices, more chances are there that the middle categories would be selected.

A comparison of the three studies shows overall similarities which are much more striking than the differences. In all the three studies, the tendency to choose socially desirable or valued responses is there. Also is seen the tendency to choose the middle categories (or, avoiding extremely worded responses). On item VII, our study and the one by Berg and Rapaport shows tendency to choose the choice "agree" as apposed to "indifferent" or "disagree" but in Heergen and Hoogstraten's study it is the middle category ("indifferent") that is selected by as many as 60% of cases. Similarly, in our study on item II, it is the choice '2' which is selected more frequently while in the other two studies, the most frequent choice selected is '3' as opposed or 1, 2 or 4. Also in our study all the chi square values were found to be statistically significant (at.05 or, .01 levels) but in Berg and Rapaport's study item IV ("First", "Second", "Third") was not found

to be significant and in Heerden & Hoogstraten's study, item VI ("A", "B", "C", "D") and IX ("0-1.5", "1.5-3.5 cm" etc.) did not reveal any significant response tendency. The reasons for all these differences can be, if one feels like doing it, labelled as cultural but since the three studies were conducted at different times (in 1954, 1977 and 1980) as well as in different cultures perhaps this can at best be tentative conclusion only, to be verified in one cross-cultural study. Also it would appear that tendencies to "agree" or to consider onself or, the loved ones as "first" are a little more in our culture as compared to the others reported there, but one has really to study intracultural variations also before jumping to conclusions.

On the whole, then, the present work does justify further, more detailed work, on a larger sample to confirm or reject some of the conclusions made here.

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(Revised 22-10-1979)

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(For Contribution in the Indian Journal of Clinical Psychology)

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2. The titles, with the name(s) of author(s), should be brief and to the point. The names, degrees, present appointments and addresses of all authors should be given in full as a footnote, on the first page of the article.

3. Articles without abstract and references will not be accepted.

4. If an article contains the following subdivisions, the following sequence should be strictly adhered to : TITLE AUTHOR'S NAME, ABSTRACT INTRODUCTION, METHOD, RESULTS, DISCUSSION, AND REFERENCES, Review articles are not published, as a rule, unless they are of considerable current interest and exceptionally good.

5. All references to literature cited in the text should be presented together at the end of the paper, in alphabetical order of the first author's name. Each reference should contain the author's name, initials, year of publication in brackets, full names of the journals, volume number and the paper numbers as given in the following for example.
Bharat Raj J. (1976) Treatment of Stuttering, Indian Journal of Clinical Psychology, 3 : 157-163

If the author cited has written more then one paper in that year, each should be distinguished by the letters-a, b, c, etc. References should include the names of all the authors. For Books, titles, place of publication, editor's and publisher's name should also be given. Chapters in books, should be treated in the same way as articles in journals. In the body of the paper, references should be made by given name of author and date of publication. The names of colloborating authors should be given in full on the first occasion in the text but in the later citations; the words et al may follow the first name.

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Indian J. Clini. Psychol. (1980) 7 : 157—162

PSYCHOLOGICAL REFERRALS IN A PSYCHIATRIC UNIT OF A GENERAL HOSPITAL

S. K. VERMA AND DWARKA PERSHAD

In this artieal an attempt is made to show that a General hospital is the main employer of the majority of the clinical psychologists and the demands it makes on them are also different. (b) There is need to study the reasons for referral to them and (c) To evaluate how adequate are their tools, (d) Since tools are not adequate, a need for some action is indicated.

Introduction. "Clinical Psychology has developed rapidly since World War II and is still changing and expanding in various ways"-so much so that "diversity" and "change" are the most recurrent themes, as well as the controversial issues in most such discussions (WHO Regional Office for Europe, 1973 Report on a working group). In the past 5-6 years, a number of research papers and reports of seminars, discussions in scientific groups etc. on the role, demand and supply, training, legal status, areas of activities, changes and expansions of clinical psychologists both in India (Prabhu, 1971, 1974, 1975a, 1975b, 1977; Sharma, 1975; Sharma et al 1974, 1975; Wig Pershad and Verma, 1974; Wig. 1975; Dhairyam, 1975; Sen, 1975; Krishnan, 1972; Sen Mazumdar, 1976; Ramalingaswami, 1976, 1977; Verma, 1977 etc.) and abroad (Wagner, 1977; Derner, 1977; Ford 1977; Walker, 1977; Wade and Baker, 1977; Kirby, 1978 a 1978b; WHO Regional Office for Europe. 1973. Report on a working group, etc.) have appeared,

Psychologist in a General Hospital. Increasingly greater number of clinical psychologists are, now-a-days, being employed in the general hospitals in India particularly in the psychiatric units but also in other units like neurology, rehabilitation, pediatrics, medical and surgical etc. According to Sharma et al's survey (1974-75) general hospital is the largest employer of clinical psychologists. Many of these are regular jobs but some are purely temporary research jobs. A rough estimate would be that about 1/4 of Clinical Psychologists in India are employed, in general hospitals.

The work of a clinical psychologist in a general hospital is in many ways different from what hs is called upon to do in a mental hospital. Not

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only the kind of problems encountered more often in one setting is different from the other, but also the kind of referrals being made are different. A number of such referrals are likely to be from different departments of the hospital-that include both the out patient as well as the inpatient departments like pediatrics, ENT, neurology, medical, surgical, nephrology, skin, gynaecology, etc., etc. Most of the hospitals do not have separate posts of clinical psychologists to work in different departments nor there are enough trained clinical psychologists to fill those posts, had they been there. This is particularly true in view of very limited number of clinical psychologists ((nearly 300) that we have in our country, and unfortunately the situation is unlikely to change in near future.

Aims. In such a situation, the questions that come to our mind are : whether the trained clinical psychologist who are working in health services, are fully equipped to undertake the kind of work assigned or expected (referrad to) from them ? Whether the available tools that they need to have to fulfill the work assigned to them, are adequate, reliable, valid, with local norms available for them ? Whether they are aware of the limitations of available tools while making judgements about a particular patients' pesonality or intelligence or other psycho pathology ? These things are discussed here based on review of literature and experience gained by the authors, working in a general hospital setting.

Referrals for psychological evaluation : The kind of referrals one gets are partly at least, a function of ones' area of interest, the work going on in a particular period of time at a centre, the attitudes/ expectations of other professional collegues etc.- but within these broad limitations some of the things to be noted are as follows :-

(1) Both for indoor as well as outdoor referrals, the figures are more or less stable for the two years under consideration. (Actual figures are available from authors on request)

(2) **Inpatient referrals :** **About** 40% of the indoor psychiatric patients were referred for the opinion of the clinical psychologists. This work load constituted only 2/3 of the total referrals. The remaining 1/3 being from other indoor units of the hospital, mainly from pediatric, neurology, medical and surgical wards. The reasons for the referrals included- differential diagonosis (50% of the referrals), assessment of intelligence (40%) evidence of brain damage (30%) and for personality assessment, or dynamics (20% approximately). A number of cases referred with more than one reasons.

(3) **Outpatient referrals ; On** an average, 535 cases a year are referred from outpatient service (80% of the work load being from the psychiatric OPD itself)- half from the adult and child guidance clinics. This amounts to 10% of the total new adult cases and half of the new child cases seen in the psychiatry OPD. Majority of these out patients referrals have been for intelligence assessment (about 70%) only, 10% for the evidence of brain damage and 20% for differential diagnosis. (4) As compared to the ward referrals, the out patients referrals, were, thus mainly for I. Q. assessment and proportionately fewer cases required detailed personality assessment or, evidence of brain damage, though in absolute numbers the other referrals (other than I.Q.) are roughly comparable, Of course, the number of questionaires, projective tests has to be much more, and done repeatedly for many patients in the ward, as their longer study and availability demand. In some cases, tests had to be repeated to evaluate fitness for discharge.

B. **Is there Any Need for such Referrals ?** One may question whether there is any need for such referrals. In our opinion, the referrals made to us during the last two years have been relevant. For example, the speech therapist likes to know the I.Q. of a child so that he may select a suitable method accordingly and not start groping blindly in the dark. The parents of some children may be worried about the educational backwardness and may desire to know if their child is mentally retarded. May be they would only like to be reassured that such is not the case. On the other hand some parents require guidance with regard to their mentally retarded child. The neurologist likes to know the level of cognitive functioning of the patients. The surgeon may like to know whether the patient is likely to develop psychiatric complications following the operation, or whether a particular kind of surgery leads to psychiatric disturbances. The psychiatrist refers a patient to know whether there is any evidence of underlying schizophrenia in a particular case, or asks for evidence if any of brain damage or memory disturbances, whether the patient is fit to be discharged, or, fit to resume duties after brain injury. The examples ary many but the purpose here is just to demonstrate the need of different clinicians who refer the patients to the psychologists for evaluation. The psychologist working in a general hospital psychiatric unit have to find sharp and sensitive tools to answer such problems posed to him and if no such tools are available to develop them.

C. **Adequacy of the Available Tools :** For the assessment of intelligence in the clinic population- for both adult and children cases, a

number of scales have been used. Unfortunately all the available tools have been found to have one or the other limitation. A number of developmental schedules and tests (eg. Gesells Developmental Schedule, Nancy Baley Scale, Tredgold's Developmental Schedule, Vineland Social Maturity Scale, Developmental Screening Test, Gesell's Drawing Tests, Draw-a-Man Test, etc.) are available- modified for our population or, otherwise- yet the reliablity of these schedules for assessment of intelligence of children is a suspect (Bhakoo et al 1977). With such a heavy load of referrals for I. Q. alone, particularly in the out patients services, absence of sensitive, reliable and valid intelligence tests is all the more frustrating. Malin's Intelligence Scale for Indian Children (Malin, 1966) which is an adaptation of WISC is a good attempt but does not measure low levels of intelligence. Other tests for older children and adults (like Bhatia's Battery, S-B Test, WAIS, Group Verbal tests, Porteus Maze Tests, Raven's Progressive Matrices etc.) are only a little better but still need further work. For example, one of the most frequently and widely used intelligence test in India-ie-Bhatia's Battery, has many advantages over others, but the fact remains that it was standeridzed as early as 1955 i.e. 25 years ago, on school going and illiterate children in the age group of 11-16 years. The norms and manual is definitely in need of a revision now. In addition, it does not give scores below 70 I. Q. which is a major handicap. With illiterates and low literates, Raven's Progressive Matrices is of doubtful value. In one study, its use had to be discontinued because of its failure with patients undergoing Cardiac Surgery as three fourths of such patients were found to score very low on this test.

As regards, the assessment of other cognitive functions, a comprehensive memory scale (PGI Memory Scale), tests of organic pathology like Bender Gestalt Test, Nahor & Benson Scale, Kahn Test of Symbol Arrangement, Benton Visual Retention Test, and a battery of tests for organicity, have been prepared, standardised, or used with our clinic population with varying degrees of success. They are good and often found useful but not good enough for making finer discriminations (e.g. identification or lateralization, and localization of organic pathology). In the areas of personality evaluation also, the available tools have serious limitations

D. Meeting the Challenge: The questions that arise in one's mind naturally are - whether we are aware of these limitations and if yes-what we are doing about it? If not doing anything, should we do something—if yes, what? From our own

experience and observations, over the past 10 years, the picture does not appear to be a very satisfactory one. There are, as can be expected a few fortunate exceptions but generally this is true. This is indeed a very unfortunate situation which should not be allowed to continue. What is very surprising is the fact that this does not appear to cause any concern to majority of the research workers in India, who are apparently lost making castles in the air only, - seeking refuge from the rigours of test requirements—behind the smoke screen of anti-test movement. A *representative* national test commission as requested by recently formed International Test Commission, is yet to be formed in India.

Acknowledgements : The cuthors are greateful to prof. N. N. Wig, Head, Department of Psychiatry, Postgraduate Institute of Medical Education and Research, Chandigarh, for his kind permission to use this date.

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Indian J. Clini. Psychol. (1980) 7: 163—166

BOOK AND TEST REVIEWS

Psychology in India : Challenges and opportunities By Dr. Prabha Ramalingaswami, published by Prachi Prakashan 'New Delhi' 1980, Pages 56 with 52 references and 2 page Index, Price Rs. 10.00.

The present book has been published with the help of a subsidy from Jawaharlal Nehru University, Delhi. The Monograph deals with Psychology as a subject in Indian Universities, with greater emphasis on training and research aspects. The author rightly laments that in India, the orientation of the discipline of Psychology is not tuned to the country's needs, unlike in the U.S.A. where American Psychological Association, with a membership of over 40,000 and its 37 divisions discusses and responds to the needs of their society.

The Book starts with a brief history of teaching of Experimental psychology in India, followed by the present status of the profession, of the training programmes, the research activity, the job opportunity etc. and finally some suggestion to reorient the training programmes are given in order to help develop scholars of calibre and capabilities to work on problems of social development.

Professional organizations, both at national and at regional levels are listed, and information about 29 professional journals including the Indian Journal of Clinical Psychology and their availability at five regions of the country (at Delhi, West Bengal, Andhra Pradesh, Bombay and Karnataka) are given. Although this book is published in 1980, the data provided seems to be gathered a few years earlier. The information about journals started after 1972 is not adequately covered. Perhaps more information would have been available, had the author written to the Editors of the respective journals concerned.

The author has painstakingly gathered, verified and analysed data from various sources about 51 universities where psychology is being taught as a subject. It provides lists of compulsory papers (N=78) and optional papers (N=137) (The author herself admits.) many of them are overlapping and marginally different. It would have been better if some sort of grouping, however inadequate or arbitrary, would have been provided. The book also presents the two Review Committee's reports — one headed by Prof. Kuppuswami in 1961 and the other by Prof. Rath in 1975, though few of the recommendations seem to have been practised subsequently.

The author describes research activities in some areas like experimental psychology, social psychology, research methodology, educational psychology psychological testing as well as the job opportunities. The quality of research in the field of experimental psychology is described as "deplorable", although its emphasis is on scientific method, and most of the researches in social psychology as "rather simplistic and naive" or "just a replication of western concepts".

With regard to clinical psychology, which is being offered as a compulsory paper in three universities and as an optional paper in 26 universities, in addition to the various other papers with overlapping contents and the diploma being given in Medical and Social Psychology from 3 centres (Bangalore, Ranchi and Ahmedabad), "as far as the outward signs of growth are concerned, clinical psychology has definitely come of age," but "psychodiagnostic tools have not been properly developed and this is a handicap to clinical psychologists" and "there is no doubt that the quality of research needs to be improved". The author sounds quite hopeful of new trends emerging in near future in this field.

Dr. Prabha Ramalingaswami describes three reasons for the crisis in psychology in Indian setting ; (a) "Western orientation" (which is "unbelievable as much as it is regrettable"), (b) "inadequate training programmes" (for which some suggestions are offered-see the book for them) and (c) "lack of concentrated and sustained effort by the profession to make the descipline respond to the needs of the country" (a common malady of modern times). Indian psychology is indeed at the cross-roads. The training programme in the field of clinical psychology has recently been reviewed (Dec. 1979) in a workshop at the National Institute of Mental Health and Neuro-Sciences, Bangalore, but obviously this and all such details about other fields can not be expected in a brief report of the present status like this one. The attempt is praiseworthy and there has been felt a definite need for such attempts even if, because of poor communication amongst the professionals in India, the coverage is not exhaustive and even if it represents the authors own considered opinion.

With a neat and attractive get up, and with compact information about many aspects of our profession, that too at reasonable price to suit the pocket of average psychologist in India, it should be soon within the reach of all of us. The reviewer finds it stimulating and has no hesitation in recommending it to the professional workers as well as to the various university and medical/social institute libraries in India.

S. K. VERMA

Manual of Direction and Norms for N. I. Scale : (A scale to measure neuroticism and introversion) 1980. By Padma Agarwaland Purnima, Deptt. of Psychology, Banaras Hindu University, Published by Rupa Psychological Centre, Bhelupur, Varanasi 221 001, pp. 16, References 8, Tables 12, Price Rs. 15·00

The manual includes introduction, inter-relatedness of the two traits (introversion and neuroticism), description, administration and scoring of the scale; information about reliability, validity and interpretation on the basis of stanine norms, percentile norms and T-scores. Like many other such scales this also is for school and college going students 14-18 years of age, and the authors hopefully say "may be used on the adult group also". It is a 50 item inventory, 25 items descriptive of neuroticism and 25 that of introversion. Adequate balancing of true false keying is done to prevent the responses from probable contamination by acquiscent response style. There is no time limit but it usually takes 10-15 minutes to complete it. It is available both in Hindi and English. Test-retest and split-half reliability range from .71 to .79 on 200 subjects and rational equivalence .96 to .98 on 1000 subjects on the two scales. Validity is established by correlating it with the Maudsley Personality Inventory. (Hindi version by Jalota and Kapoor 1971) and by differentiating psychosomatic cases from normals at .01 level of significance. Norms are given separately for boys and girls aged 14-18 years and adults. Thus it appears to be a good and reliable scale.

A closer look, however, is rather disappointing for a number of reasons. It is surprising that a great deal of experimental work by Eysenck and his group on the inter-relatedness of the two traits seem to have been forgotten or, ignored (particularly so since Eysenck's scale MPI has been used to validate the present scale), while Freud (1970) Bernreuter (1971) and Allport (undated) are referred to. The authors merely conclude that "Actually introversion and neuroticism are two dependent and correlated traits; there is low and negative correlation between neuroticism and extroversion". Authors also report that Bernreuter (1931) obtained a correlation of .94 between neuroticism and introversion. The authors have not reported this inter-correlation on their scales, although it was-expected. It may be mentioned here that Eysenck and Co-workers had reported higher inter-correlations in the neurotic group and low correlation between the two scales in the normal population.

Secondly, it is not clear how the items were selected, what were the criteria, whether any tryouts and item analysis (item consistency and discriminatory values) were carried out or not and what were the results if they were. The inter correlations of the Hindi and English versions should also have been reported.

For validity measurements, it is not clear why Maudsley Personality Inventory alone was selected. Eysenck and his co-workers have brought out E.P.I. and E.P.Q. afterwards, which should have been better choices. Table 2 reports "Convergent (Neuroticism) and Discriminant (Introversion) validity coefficients". The later seems to be a misuse of the term discriminant validity. Introversion and extroversion are the two ends of the same personality dimension. The correlation between introversion scale of NI and Extraversion scale or MPI can not be called as discriminant validity. It would have been better to correlate N and I scales of NI with E and N scales respectively (i.e. correlations of N with E and I with N) of M.P.I. Under the circumstances both correlations reported in the manual are of Convergent type only. It is also not clear why for establishing validity, a psychosomatic group was selected. One would have thought of a neurotic group first and later only to use the psychosomatic or any other group.

The time interval for test retest reliability, and the sample size for correlation reported in Table 2 seems to have been missed because of oversight. For stanine norms, no reason is given for different age groups (14-17 and 18 years for girls and 14, 15 and 16 to 18 years for boys on Neuroticism scale. For introversion it is 14-18 years for boys) chosen for different scales. For adults, the sample size is given but separate norms are not given for males and females though the sample is quite large (N=800). It appears that many such arbitrary decisions were taken, which puts further limitations on the use of the scale.

The scale has some good qualities also, as has been mentioned earlier. It definitely requires further work before it can be recommended for use by clinical psychologists in India, except for the limited use with the students population, for research purposes only.

S. K. VERMA

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THESES COMPLETED

I. **Department of Psychology, University of Madras**

(1) Effect of Anxiety on Persuasion in anxiety neurotics and cancer patients. (Ph. D. 1980 K. V. Kaliappan).

(2) A study of mental health among Pulayas a tribal community at Thirumurthi Hills in Udumalpet, Coimbatore District (Ph. D. 1980, S. Gurudoss),

II. **Dept. of Experimental Psychology, University of Poona :**

(1) Patterns of behaviour under stress in man and animals and some aspects of drug dependence (M.J. Kasturi Thirumalachar Dec. 1976).

(2) Measurement of hostility and its correlates (H. C. Kocher, Sept. 1977).

(3) An experimentel study of some methods of training in creativity (A. M. Nirpharake, July 1978).

(4) Measurement of the degree of mental retardation (Usha Ram, 1978).

III. **Department of Applied Psychology, University of Bombay :**

(1) The construction of a multiphasic personality scale suitable to Indian Conditions (Ph.D. 1965, M. D. Bengalee).

(2) The Muller-Lyer illusion under different conditions (Ph. D. 1966, K. G. Desai).

(3) A psychological study of the methods of measurement and prediction of athletic ability in Kabaddi and Khokho (Ph. D. 1966, V. D. Bapat).

(4) An experimental study of emotional reactivity as related to some Yogic and Non-Yogic conditions (Ph. D. 1967, V. Partap)

(5) Some behavioural and personality correlates of functional dysmenorrhoea in married and unmarried women (Ph. D. 1969 Vimla Sharma).

(6) An investigation into the cross-community attitudes of students of under-graduate and postgraduate classes in the University of Bombay (Ph. D. 1970, P. K. Muttagi).

(7) Pattern of industrial morale of employee at the management level under different social, technological and management systems (Ph. D. 1973, O. N. Ganguly).

(8) An experimental verification of an aspect of sensory tonic hypothesis (Ph. D. 1975, R. S. Malik).

(9) An experimental investigation into the effectiveness of some Yogic variables as a mechanism of change in value-attitude system (Ph. D. 1976, M. B. Kolsawalla).

IV. Department of Psychology, Delhi University (Masters Thesis)

(1) Hysteria- a phenemenological and psychodiagnostic investigation (Rashmi Shankar).

(2) A study on the clinical features of adjustability in high and low anxiety group of adolescent girls (Shalim Jagannathan).

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(4) Child rearing practices and adjustment problems of physically handicapped children (Upasana Vishnoi).

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(6) A comparative study of adjustment & personality pattern of adolescent girls of co-educational and non-co-educational schools (Nutan Deewan).

(7) Psychosomatic disorders- a neurobiological perspective (A treatise) (Poonam Grover).

(8) Child rearing & personality- a critical review of child rearing as a psycho-social mechanism affecting personality (Kalpana Tahiliani).

(9) A comparative study of delinquent behaviour in relation to personality and intelligence (Meena Kataria).

(10) A comparative study of level of aspiration, interpersonal relation-

ship, self concept and egostrength amongst drug users and non-users (Joamna C. Mathew).

V. **Dept. of Psychology. M. S. University, Baroda**

(1) An investigation of studying self-esteem changes as a function of counselling therapy (Ph. D. 1973, S. L. Patel).

(2) An investigation to study motives, concern and fear of failure of ideationally conformist and deviant university students (Ph. D. 1980, P. J. Bhailal bhai).

(3) Interpersonal communication between parents & adolescents as related to adjustment in adolescents (Ph. D. 1978, M. L. Maria).

(4) Some aspects of patterns and determinents of human aggression (Ph. D. 1980, Y. S. Vagrecha).

(5) A study of problems of family and marriage adjustment of women in some communities of Gujarat (Ph. D. 1973. J. R. Barot).

(6) An investigation to study the degree of maternal over protection as experimented by early adolescents and to evaluate its effect on some personality traits (M. A. 1970, S. T. Azimbhai).

(7) A comparative study of socially deprived women institutionalized and non-institutional with respect to personality traits (M.A. 1971, V. U. Navinchandra).

(8) To study thinking resormizy & memory in schizopherenic patients (M. A. 1971, P. K. Thakorbhai).

(9) A study of personality patterns of unmarried working women. (M. A. 1972, A. V. Naraindas).

(10) A study in perception as crippled children by noncrippled children (M. A. 1972, M. M. Ishvarlal).

(11) A study of personality patterns of married working women (M. A. 1972, N. K. Abubaker).

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(13) A study of the problems of M. S. University students residing in the University hostels (M.A. 1973, I. J. Annakutty).

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vi. Department of Psychiatry, K. G. Medical College, Lucknow

(1) Antipsychotic effects of lithium in schizophrenia.
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(6) Role of psychotropic drugs in a birth defect register.

vii. Department of Psychology, Panjab University, Chandigarh.

(1) A study of the closed mind in relation to authoritarianism, conservatism and rigidity and familial antecedent within the Indian Context (Ph.D. 1980 K. A. Shirali).

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