

## MENTAL MORBIDITY AMONG GRADUATE AND RESEARCH STUDENTS : AN EPIDEMIOLOGICAL STUDY

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### SUMMARY

A cross sectional epidemiological study of mental morbidity among 1160 postgraduate and research students was done by census method. Goldberg's 60 item GHQ was used as screening tool and a person scoring 12 and above was taken as a case. The response rate was 92.5%. A prevalence rate of 16.68 was found. The relationship between mental morbidity and selected socio-demographic, motivational psychological variables; certain life experiences in the campus was studied. The results are discussed. This study is first of its kind in our country.

Students form a relatively homogenous subgroup in the society (Bhatti, 1970). Being more self conscious and group conscious they are more vulnerable, easily wounded and sensitive (Wolfenden, 1970). The very nature of their work is such that even a minor disturbance will seriously affect their functioning (Kapur, 1969). As students represent the society's investment for its future, their mental health is vital not only in its own right but also as a factor contributing to the larger society's well being. Their assessment for any problem is therefore vital.

### STUDENT PROBLEMS

Psychological problems seen in students are some what different from those in others of the same age group because of special problems like academic and vocational difficulties, apathy and other emotional disturbances related to college life. The most frequent complaint of the students who seek consultation is, difficulty with studies. Blaine and McArthur (1961) found many factors being responsible for the same. eg. i) unconscious dislike towards the course  
ii) laziness  
iii) inability to learn a foreign language

- iv) Uncontrollable tension, restlessness in the background of financial stress or a frustrating or disappointing love affair or illness of a close family member
- v) Expectation of emotional reward in the form of appreciation and the disappointment when it is absent
- vi) Unconscious desire to fail because of
  - a) unwillingness to be what some one else wants him or her to be
  - b) rebellious drive, a retaliation against parents etc.

A clear and uniform pattern does not emerge from the many epidemiological studies so far available in the literature. Prevalence rates published, range widely between 2 and 50%. This is due to wide variability in definition, tools of enquiry and techniques of sampling etc. But rate of 6-10% seems reasonable enough to plan a necessary facilities in the campuses. In our country there are only a few studies. While Wig et al. (1959) analysed 68 students who sought psychiatric help, Thacore and Gupta (1972) reported a prevalence rate of 9.8/1000 among 58 medical students. Sharma (1976) reported 9% to be severely emotionally disturbed among 440 Arts students.

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Rao (1978) quoted a prevalence rate of 19.6% after doing a population survey of 428 High school students.

Post-graduate students and Research students do not seem to have been studied so far. These make a special group altogether among student population as they are subjected to a greater academic stress and strain. Even slight amount of psychological disturbance can be detrimental for their performance. This work is intended to study this special group of students.

#### AIMS

- (1) To find out the prevalence rate of mental morbidity among post-graduate and research students.
- (2) To find out the relationship between the mental morbidity and (a) certain selected social and demographic, motivational and psychological variables (b) certain variables connected with the students' attitude and stresses they perceive.

#### MATERIAL AND METHOD

1160 post-graduate and research students of a reputed research institute formed the population of the study. Since the admissions to this institute are purely on merit and open to all, this selected population seems to be the cream of student population of the country 80% of these students live within the institute campus and enjoy organised recreational and medical facilities.

The study was conducted with the help of a questionnaire which had two parts: first part was specially designed to cover personal and social demographic data, factors related to the individual's perceived motivation and experiences at the institute. Second part consisted of David P. Goldberg's 60 item General Health Questionnaire. The questionnaire was self-administered.

In the beginning, the students were administered with the questionnaire in groups. The response was not satisfactory (only 51%) inspite of good effort by the investigators and the institute staff. According to some sample opinions, this was probably due to

- (i) the apprehensions and fear of being labelled as 'mad'
- (ii) apprehension related to something being thrust on them by the administration which has to be discouraged.
- (iii) grievances that they were not consulted adequately.
- (iv) insufficient faith and interest regarding the usefulness of such studies.

Later the students were personally contacted either in their hostel rooms or in the departments over a period of three months. This effort increased the response rate finally to 92.5%. A person who scored 12 or above on Goldberg's GHQ was considered as a case.

#### RESULTS

TABLE 1—*Response Rate*

Course	Total No. of students	Responders	%
Post-graduate students	606	573	94.6
Research students	554	500	90.2
..	1,160	1,073	92.5

TABLE 2—*Morbidity Rate*

Number of students studied	..	1,073
Number of students who scored 12 or above	..	179
Percentage	..	16.68

Various Factors which have significant relationship with mental morbidity are shown in the following tables :

TABLE 3—Course

	Normals (N=894)	Cases (N=179)	Total
Diploma ..	21 (72%)	8 (28%)	29
Bachelor's Degree	184 (79%)	49 (21%)	233
Master's Degree	260 (84%)	51 (16%)	311
Research ..	429 (86%)	71 (14%)	500
$X^2=7.98$ d.f.=3 $p<0.05$			

TABLE 4—Family Income

	Normals (N=894)	'Cases' (N=179)	Total
Up to Rs. 499 p.m.	121 (82%)	27 (18%)	148
Rs. 500 to Rs. 999 p.m.	257 (80%)	63 (20%)	320
Rs. 1,000 to Rs. 1,499 p.m.	222 (80%)	55 (20%)	277
Rs. 1,500	294 (90%)	34 (10%)	328
$X^2=12.76$ d.f.=3 $p<0.01$			

TABLE 5—Motivational factors

Student's attitude towards comming to the present course

	Normals (N=894)	'Cases' (N=179)	Total
In favour	832 (84%)	155 (16%)	987
Neutral	55 (73%)	20 (27%)	75
opposed	7 (64%)	4 (36%)	11
$X^2=9.22$ ,      d.f.=2, $p<0.001$			

TABLE 6—Student's choice of the course

	Normals (N=894)	'Cases' (N=179)	Total
First choice	766 (84%)	141 (16%)	907
Not of 1st choice ..	128 (77%)	38 (23%)	166
$X^2=5.45$ d.f.=1 $p<0.05$			

TABLE 7—Description of the family

	Normals (N=894)	'Cases' (N=179)	Total
Happier than most ..	398 (86%)	64 (14%)	462
About the same as others ..	463 (83%)	92 (17%)	555
Less happy than most	33 (59%)	23 (41%)	56
$X^2=26.72$ d.f.=2 $p<0.001$			

TABLE 8—Satisfaction with financial arrangements

	Normals (N=894)	'Cases' (N=179)	Total
Quite satisfied ..	699 (87%)	102 (13%)	802
Not satisfied, but will continue	136 (70%)	57 (30%)	193
Not satisfied, and intend to change	59 (75%)	20 (25%)	79
$X^2=36.2$ d.f.=2 $p<0.001$			

TABLE 9—Satisfaction with financial arrangement

	Normals (N=894)	'Cases' (N=179)	Total
Quite satisfied ..	668 (87%)	104 (13%)	772
Stress to one-self ..	100 (83%)	20 (17%)	120
Stress to parents ..	54 (72%)	21 (28%)	75
Stress to both	72 (68%)	34 (32%)	106
$X^2=30.80$ d.f.=3 $p<0.01$			

TABLE 10—Social relationship: No. of close friends of same sex

	Normals (N=894)	'Cases' (N=179)	Total
Nil ..	57 (74%)	20 (26%)	77
1 to 5 ..	387 (80%)	97 (20%)	494
6 to 10 ..	217 (87%)	33 (13%)	250
11 & above	233 (88%)	29 (12%)	252
$X^2=15.01$ d.f.=3 $p<0.01$			

TABLE 11—*Extra curricular activities*

	Normals (N=894)	'Cases' (N=179)	Total
Very regularly > 5 hrs/wk	272 (92%)	25 (8%)	297
Very regularly < 5 hrs/wk	144 (84%)	27 (16%)	171
Occasionally	296 (82%)	65 (18%)	361
Only rarely	142 (76%)	45 (24%)	187
Never	40 (70%)	17 (30%)	57
$X^2=29.66$ d.f.=4. $p<0.001$			

TABLE 12—*Contact with the staff*

	Normals (N=894)	'Cases' (N=179)	Total
No contact	11 (52%)	10 (48%)	21
Poor contact	85 (77%)	26 (23%)	111
Some, but not enough	327 (80%)	83 (20%)	410
Sufficient contact	471 (89%)	60 (11%)	531
$X^2=32.99$ d.f.=3 $p<0.001$			

TABLE 13—*Period of stay*

	Normals (N=894)	'Cases' (N=179)	Total
Less than 1 year	310 (82%)	66 (18%)	376
1-3 years	400 (84%)	74 (16%)	474
3-5 years	126 (79%)	33 (21%)	159
5 years and above	58 (91%)	6 (9%)	64
$X^2=5.04$ d.f.=3    N.S.			

## COMMENTS

The study was cross-sectional, epidemiological in nature and was conducted by census method. Since the population was large, there was no choice but to use a questionnaire approach inspite of its inherent limitations. Goldberg's 60 item questionnaire—the best among available screening devices was used to identify cases. A score of 12 and above was taken as the

cutting score as suggested by the author himself. (Total misclassification rate is said to be 13.3%). This questionnaire detects mainly neurotic cases and only a few acute psychotics and organic cases. In spite of the best effort the response rate was 92.5%.

Any interpretation of the results should be done in the context of following points:

1. Due to lack of a common definition of a 'case', the prevalence rate of this study cannot be compared with those of others (except that of Rao's (1978) study).
2. A statistically significant relation of a factor with the mental morbidity does not necessarily mean that one is the cause of the other. But can be considered as 'indicator' in identifying the persons who need help.
3. The design of the study permitted only a superficial examination, the explanations given need confirmation by further work.

16.63% students studied were found to be psychiatrically disturbed. This figure falls in the mid range of morbidity rates quoted by other studies. Compared to Rao's (1978) figure who used the same tool among high school students, the morbidity among postgraduates is low ( $p<0.001$ ) This low rate may be explained by the fact that the index population has passed the adolescent age group. Compared to prevalence rates of neurosis in general population as quoted by Dube (1978) (9.2/1000), Verghese and Beig (1974) (48/100) the rate in this student population is quite high.

Factors like sex, age, language, medium of instruction, marital status, period of marital life, place of birth, rural living, religion, caste, participation in religious activities, type of parents, marriage, occupation of the father, educational status of the parents and sibs, birth order, special status in the family (only child, only child of that sex) and parental loss or separation did not have any significant relationship with the

morbidity rate. Some of these findings are in agreement with those of a few other studies and some are not. (Kidd, 1963; Mechanic and Greenly 1976, Sharma 1976, Rao 1978). The present study shows that students form a homogenous group in spite of different socio-demographic origin, share a common environment which has more influence on them which will be evident later. Many Indian studies (Abraham *et al.* 1973, Sethi and Gupta, 1973, Sundar Raj and Rama Rao 1966, Prabhu and Ramchandran 1973) report that there is high correlation between high birth order and mental illness (mainly schizophrenia). In the present study no such correlation was found and this may be due to the index population being pre-dominantly neurotic, and also, another reason may be that the strict selection by merit adopted by this institute weeds out those in whom the morbidity manifests as poor achievement.

Low family income (<Rs. 1500/pm) is related to high morbidity rate. These students are likely to be subjected to various stresses that accompany financial hardship in their earlier environments.

In terms of motivational factors students, own attitude towards opting for a particular course is related significantly to mental morbidity. Neutral or negative attitude correlated with high morbidity.

And the morbidity is high in students who described their home as less happy than most. It is difficult to state whether unhappy homes cause mental disturbance but mentally disturbed ones do view their homes as unhappy ones. It is noteworthy that research students have a lower mental morbidity than post-graduate students.

The dissatisfaction arising from living arrangements, financial arrangements, poor extracurricular activities, poor social relationships, poor staff student contact, are all significantly related to high mental morbidity.

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