SUITABILITY OF A SOCIO-ECONOMIC SCALE FOR HOSPITAL PSYCHIATRIC POPULATION

A. RAMANATHAN, M.D., D.P.M.
G.B. SHANTHA, M.A.
V. BALAN, M.D., D.P.M.

SUMMARY

The Socio-economic scale devised by Gupta and Sethi (1978) was applied to 737 urban cases registered in the psychiatric out-patient department of a general hospital during the period of one year. Correlation and regression coefficients were calculated for education, income, occupation and total scores. The scale seemed to be suitable for hospital psychiatric population.

There are status hierarchies in society and the status is usually measured by taking into account education, occupation and income of the individual. As the quality of population is changing, the scales measuring socio-economic status should be revised periodically. Gupta and Sethi (1978) discussed the need for a comprehensive scale and developed a socio-economic scale for urban population with 10 categories of social status i.e., I to X.

General Hospitals cater mainly to the poor population. Morbidity, especially especially psychiatric morbidity disturbs the harmony between education, occupation and income. Hence the hospital population is different from general population. It is necessary to examine the suitability of a socio-economic status scale in hospital population as the majority of researches are conducted in hospitals.

The present study is aimed at examining the suitability of the scale devised by Gupta and Sethi (1978) for urban population attending the Psychiatric out-patient department of a General Hospital.

MATERIAL AND METHODS

737 urban patients who were registered in the Psychiatric out-patient Department of Government Raja Mirasdar Hospital, Thanjavur (Tamil Nadu) in the year 1982 formed the sample for this study. The range for age was 3-68 years. They belonged to various diagnostic groups. Diagnosis-wise there were 385 cases of functional psychosis, 52 cases of organic psychosis, 205 cases of neuroses, 35 cases of mental subnormality and 60 cases of epilepsy. The scale devised by Gupta and Sethi (1978) was applied to all these cases and the scores for income, education, and occupation were recorded separately. Total scores were calculated and the relation between education, income, occupation and total scores were examined using correlation and regression coefficients worked out with the help of the IBM 370/155 computer at the Indian Institute of Technology, Madras.

RESULTS AND DISCUSSION

Total scores ranged between 60 and 340 i.e., the representation ranged between status category IV and category X. The Mean total score was 112.65 with s.d. 46.96. The mean score for education was 35.98 with s.d. 22.12. The mean score for occupation was 40.96 with s.d. 14.52. The mean score for income was 35.74 with s.d. 22.93.
Table I shows the correlation coefficients between the scores obtained for

| Variables Correlation Co-efficients | Level of Significance |
|-----------------------------------|-----------------------|
| (i) Correlations:                 |                       |
| Education Vs Occupation           | .3094                 | p < .001 |
| Education Vs Income               | .5277                 | p < .001 |
| Occupation Vs Income              | .3844                 | p < .001 |
| Education Vs Total Score          | .8222                 | p < .001 |
| Occupation Vs Total Score         | .6411                 | p < .001 |
| Income Vs Total Score             | .8536                 | p < .001 |
| (ii) Partial Correlations:        |                       |
| Education, Occupation, Income     | .1359                 | p < .001 |
| Education, Income, Occupation     | .4656                 | p < .001 |
| Occupation, Income, Education     | .2738                 | p < .001 |

**education, occupation income and total scores.** Education, occupation and income were intercorrelated positively and significantly. But the correlations were not as high as those observed by Gupta and Sethi (1978). This should be due to the differences between the two samples. The sample chosen by Gupta and Sethi (1978) mainly consisted of teaching staff, hospital staff and scientists. In such a sample, occupation and income should be determined by the education level and the harmony between these 3 variables viz; education, occupation and income should be high. But the sample for the present study was psychiatric population attending a General Hospital and Psychiatric morbidity should have disturbed the harmony between the three variables. The overlapping between the three variables (education, occupation and income) was not more than 27.85% (.5277² x 100). Hence the 3 variables had considerable independence.

Education, Occupation and income were highly positively and significantly correlated with total scores and the overlapping was more than 41.1% (.6411² x 100). This indicates that the total scores should be taken as a better index rather than the scores on any individual variable (education, occupation or income).

Partial correlation co-efficients between any two of the three variables when the third variable was partialled out was less than the co-efficient without partialling out but the partial correlation co-efficients were statistically significant indicating that these variables were related to each other. Education and income had the highest correlation co-efficient (.5277) in comparison to education with occupation (.3094) and occupation with income (.3844). The reduction in the co-efficient between education and income when occupation was partialled out (.5277 — .4656 = .0621) was less than the reduction for education with occupation when income was partialled out (.3094 — .1359 = 1.735) and that for occupation and income when education was partialled out (.3844 — .2738 = .1106). These findings indicate that education and income were strongly correlated and that occupation provided a weak link between the two. The scale devised by Gupta and Sethi (1978) takes into account the total family income and not the individual's income. Hence the damage done to income due to psychiatric morbidity cannot be very severe. The education score for children was that for the parent or guardian and the score for adults was the score of self. Hence education should be relatively touched little by psychiatric illness. But the occu-
**Table 2. Regression Analysis (N=737)**

| Regression Equations                                                                 | R Square Values | F          | Level of Significance |
|--------------------------------------------------------------------------------------|-----------------|------------|-----------------------|
| \( Y = 3.30282 + 1.46454 X_1 + 1.38318 X_2 \)                                      | 0.84133         | 1946.00995 | \( p < .001 \)         |
| \( Y = 30.71778 + 1.19134 X_1 + 1.09375 X_2 \)                                   | 0.92616         | 4229.58354 | \( p < .001 \)         |
| \( Y = 11.86791 + 1.45895 X_1 + 1.18766 X_2 \)                                   | 0.84354         | 1978.67361 | \( p < .001 \)         |

Y = Total Score, \( X_1 = \) Education, \( X_2 = \) Occupation, \( X_3 = \) Income

...population score will become low if the individual is unemployed or loses job and/or is dependent upon others. The weak link provided by occupation can be explained thus. 36 out of 240 (15%) males between 20 and 50 years were unemployed at the time of registration.

Regression analysis was carried out keeping the total score as dependent variable and education, occupation and income as explanatory variables. Table 2 shows the regression equations, R square values and significance levels for the 3 variables on total scores. The minimum R Square value between the total scores and any two of the three variables (education, occupation and income) was 0.84133 indicating that more than 84% of the variations in total scores were explained by any two of the three variables.

...This scale seems to be suitable for hospital psychiatric population but it will be much more suitable for general population since the occupation scores suffer due to psychiatric morbidity.

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