SUMMARY AND
CONCLUSION
This work has studied the relationship of different symptoms, personal history, some measures of Rorschach, neuroticism, ego strength scale with prognosis of depression on 84 cases. Treatment given was similar in all the cases. Percentage of improvement in each case over a 6-week period was calculated.

To identify the factors or traits that are significantly associated or correlated with prognosis, product moment correlation was calculated in case of measurable characteristics like age of onset; in case of characteristics giving rise to dichotomy of patients, point biserial correlation was calculated. A test for significance of such correlation was carried out by comparing the value of \( t = \frac{r \sqrt{n-2}}{\sqrt{1-r^2}} \) with significant prints of \( t \)-distribution corresponding to the \( n-2 \) d.f. In some cases, \( \chi^2 \) test was used to test the significance of association.

Out of the 60 factors studied in 60 cases (Rest 24 cases being used for validation of the scale developed), eleven were found to have statistically significant association with improvement. These are: Age of onset of illness, Age of 1st onset of illness, No symptom-free period for last one year, Sudden onset, Absence of agitation, Adequate pre-morbid personality, Adequate psycho-genesis, Low 1st day score on Beck's inventory for measuring depth of depression, Low KNPI Score, Sleep disturbances and Higher percentage of whole responses in Rorschach.

It is said that endogenous depression has better prognosis than neurotic depression. In the present study, however, diurnal variation and lack of reactivity of depression, which
are prominent symptoms of endogenous depression, are found to be associated insignificantly with the type of response.

Adequate pre-morbid personality, Low KNPI Score, No symptom-free period for last one year, Higher age of onset of disease have been reported as having association with good prognosis by other studies also (Hobson 1953, Mendels 1965, McConaghy et. al. 1968 and Kerr 1972).

To develop a prediction scale, multiple regression of percentage of improvement on 25 factors (12 from personal and family history and 13 measurable items of Rorschach) was determined thereafter by the method of least square using a computer. Regression co-efficients for different factors taken as independent explaining variables were determined. To check up the ability of this multiple linear regression to explain differences in responsiveness, predicted values were obtained for 24 cases. In most of the cases, considerable difference was found in observed and predicted values.

These 25 factors have been found to be of not much value in explaining prognosis. Factors from Rorschach (with exception of one—W%) are related insignificantly with prognosis and these have usually not been included in the development of weightage scales for predicting response to type of treatment (Kiloh 1962, Mendels 1965b and 1968, Corney 1965). As a check against the argument that failure of the scale developed in the present study might perhaps be due to presence of these 13 Rorschach factors in the multiple regression analysis, it was decided to take into account only rest of the 12 factors (other than the 13 Rorschach factors included in the first multiple regression). Regression co-efficients of these 12 factors taken as independent explaining variables are presented in Table IX.

Using the regression equation so developed, predicted values for percentage of improvement were obtained for the same 24 cases (Table X). To test the agreement between observed and predicted values, a two-way table classifying the cases as having value "above the median" and "below the median" for observed and predicted values was prepared. This table, however, also shows (Table XIA)
insignificant association between observed and predicted values. Table XIB showing number of individuals having difference if observed and predicted values being "more than 10" and "less than 10" indicates that, still, in 70.83% of cases difference in observed and predicted percentage of improvement is "more than 10". It can thus be seen that, even here, results point to a high percentage of cases with significant difference between observed and predicted values (Table X, XIA and XIB).

Since these 12 factors were also found to be of not much value in explaining prognosis and since the validity of including categorical data in a multiple linear regression is not beyond doubt, it was further decided to take into account only five measurable characteristics strongly related with percentage of improvement (Age of present onset, Age of 1st onset, 1st day score on Beck's inventory, KNPI and Score on Barron's ego strength scale). Multiple regression for these factors taken as independent explaining variables was determined and, using this equation, predicted values for percentage of improvement were obtained for the same 24 cases. To test the agreement in observed and predicted values, a two way table classifying the cases as having values above the median and below the median for observed and expected values was prepared. This table shows insignificant association between observed and predicted values (Table XIVA). In 83.33% of cases, there is difference of more than 10% in observed and predicted values. (Table XIVB).

Thus, on the basis of the present scale, we can only say that linear regression is unable to explain the differences in prognosis of population very similar to the one on which it was developed. The scales so developed by the other authors (Kiloh 1962, Mendels 1965b and 1968 and Carney 1965) have not been properly validated. Except for the scale of Carney (1965, 1972),
ability of the scale on new cases (not included in the group whereupon the weightage are based) have not been tested.

And the scales developed in the present investigation failed to explain the differences in the prognosis of population very similar to one on which these were developed. So, we can say though there are many factors related with prognosis (like age of onset, Neuroticism, type of onset etc.), it is very difficult to assign them proper weights. It may be due to various factors. Perhaps, there are many other variables (other than the variables studied, which are already 60 in number) from social life of an individual which interact to alter the type of response of the patient to the same drug.

In this connection, it is noteworthy that factors found to be related with prognosis (with the exception of sleep disturbance, agitation and depth of depression) are not symptoms of depressive illness; rather, these are history factors (like age of onset - present and first, history over one year with no symptom-free period, sudden onset of illness, Adequate premorbid personality, Adequate psychogenesis) and personality factors (like neuroticism, ego strength).

So, results of the present study suggest that, although work on prognosis is usually done with symptom factors, inclusion of history and social interaction factors might lead to more fruitful results. Either this is true, or we have to admit that development of such a scale is really a very difficult task (if not impossible). So, while using such a scale (developed by other authors), one must be aware of the limitations of the scales so developed which are rarely validated properly.