CHAPTER VI

CONCLUSIONS AND SUMMARY
CONCLUSIONS

The overall picture of the three groups on various personality variables is depicted graphically in the personality profile (Fig. 8). The profile of an allergic subject which emerges from the present study is that of a person who differs considerably from the normal healthy individuals on certain personality traits. As the results indicate, the allergies are significantly higher on neuroticism, alienation, hostility, anxiety and poor adjustment as compared to the normals. Whereas there is no significant difference between the two groups on anomie. However, the personality profile of the allergy and tuberculosis group is more or less similar except for the variable of direction of hostility on which allergic group is significantly higher than the tuberculosis group.
FIG. B.

GRAPH SHOWING Z-SCORES OF THE PERSONALITY PROFILE FOR ALLERGY, TUBERCULOSIS, AND NORMALS.

REFERENCES
ALLERGY.
NORMALS.
TUBERCULOSIS.
Thus it may be concluded that the personality profile of both the disease groups has more or less the same pattern. Possibly both allergy and tuberculosis patients have in common an over-sensitivity to stimuli that are innocuous to others; and in both instances, the oversensitivity, dependency needs or insecurity, if not inborn can be traced back to previous sensitising experiences. All these factors may lead to the development of higher neuroticism, alienation, poor adjustment, hostility and anxiety. More important are certain psychological features, so commonly found in allergic patients that it is hard to believe that this combination is merely due to chance. More likely, the personality features described are concomittant with an allergic diathesis, and the nature of the response to stressful life situations is determined by the allergic predisposition of the patients concerned.

No conclusions can be drawn as to whether these patterns were present prior to the onset of illness. A satisfactory answer could be obtained only through longitudinal studies, predicting incidence of such disease on the basis of personality variables, and using long term observation to check the accuracy of the predictions.

Plausible explanations that can be put forward are:

(i) Perhaps some of the common personality traits may be making the person more vulnerable to develop allergy and
tuberculosis, or broadly speaking—more vulnerable towards developing respiratory problems. This viewpoint is similar to the general emotional-arousal and genetically determined organ-vulnerability theories or constitutional-vulnerability theories. These theories hold that the most vulnerable organ becomes malfunctional or is damaged in response to stressful stimulation. These theories focus on genetic vulnerability, but the effects of injuries, diseases and other earlier influences may also contribute to biological vulnerability. It may also be suggested that higher scores on neuroticism, alienation, poor adjustment, hostility and anxiety may also be considered as a neurotic personality development. These traits show a trend that the persons are somewhere insecure and the insecurity is manifested in anxiety, poor adjustment and neuroticism. To get out of this trend they may need short term psychotherapeutic intervention.

The high scores obtained by the tuberculosis subjects on these personality variables could also be the result of nature of illness and patients reaction towards it. May be social, cultural and psychological factors play an important role in the pathogenesis of diseases like tuberculosis. The emergent stress and the characteristic attitude exhibited by these patients may be contributing to the psychological symptoms encountered in this illness. Stater and Roth (1974)
also described the psychiatric morbidity of the tuberculosis patients to be psychogenic reactions of neurotically predisposed people to their special situation and awareness that they are suffering from a severe and dangerous illness.

The present results suggest the general pattern of interrelations of psychological variables, as the groups (allergy and tuberculosis) high on anxiety also show poor adjustment as compared to normals. The same pattern was found by Shanmugam and Kaliappan (1982). It is observed that groups high on anxiety are also high on neuroticism and hostility. This finding corroborates some of the previous findings (Hass, 1965; Mohanty and Mishra, 1967) in which the investigators have established a close positive relationship between hostility and neuroticism and also hostility and anxiety (Miller and Baruch, 1950). The present findings further suggest, hostility may also be correlated with alienation as also found by McLosky (1975) and Saksena (1981). These findings are suggestive of common antecedent variables, experiences and psychodynamics giving rise to neuroticism, alienation, poor adjustment and anxiety. Further investigation is warranted in this area.

By and large, the results indicate that sex and age are important factors for the personality traits under consideration. Broadly speaking younger and middle age subjects were found to be higher on alienation, hostility, and anxiety. Females,
particularly in the tuberculosis group were found to be poor on adjustment, and significantly higher on neuroticism and anxiety. Comparison of the females in different age groups revealed that younger females are worst off on these variables. As already discussed earlier, higher mean scores were obtained by the younger tuberculosis females; except for direction of hostility on almost all the variables chosen for the present study they scored higher than their counterparts. The possible reasons and explanations have already been discussed in the preceding pages. The implication is that perhaps the younger females need more care and supportive therapy. Considering the high incidence of psychiatric abnormality, the nature of which to a large extent permits useful psychiatric intervention, more attention has to be paid to the psychiatric manifestations of such medical illnesses to alleviate the mental sufferings of these patients.

LIMITATIONS OF THE PRESENT STUDY AND SUGGESTIONS FOR FUTURE RESEARCH:

1. In the present study, the two disease groups (tuberculosis and allergy) were not perfectly matched on duration of illness (chronicity) because of non-availability of subjects and time constraint. The duration of illness was longer in allergies as compared to tuberculosis patients. In view of the available evidence on the basis of previous research regarding importance
of chronicity of illness for personality, it would be of significance to study the subjects perfectly matched on chronicity.

2. There are measurable important psychological differences within samples of allergy patients varying on hypersensitivity on skin testing. Therefore three subgroups, non or low, middle and high reactors were studied. They were not found to be significantly different from each other. The limitation being that the number was too small in each category.

3. For future research, a larger sample may be taken in each category. It would be worthwhile also to study the different types of respiratory allergy or patients differing with respect to diagnosis in respiratory allergy.

4. In order to avoid unwieldiness of the study, the investigator could not do full justice to the demographic variables i.e., marital status, educational qualifications, rural-urban background, socio-economic status (SES), family structure etc. Our sample consisted of patients "attending chest and allergy out-patient's departments" and as such are not necessarily representative of all allergy patients existing in the community. Further, since illiterate patients were straight away excluded from the study, this introduced another selectivity
in the sample. These demographic variables are likely to be significantly related to the personality of the allergy patients.

5. Study of the antecedent and background variables of the allergy patients could throw some further light on the genesis of the problem and its relationship with the personality of the allergy patients.

6. It would be worthwhile if careful unraveling of the emotional situation which preceded the onset of the illness could be done. The strivings, adaptive mechanisms or coping styles and attitudes with which the patient faced the various situations during his lifetime are worth exploring. Studying the patient's coping mechanisms can prove to be of great prognostic importance.

7. To know the cause and effect relationship of the disease and the personality variables, it will be valuable to conduct a longitudinal study. It is quite possible that direction of cause and effect relationship may not be the same in the allergy and tuberculosis group.

8. In view of the present findings regarding allergies being higher on certain negative psychological traits, a particular psychological therapeutic approach and consequent psychological response could be another topic of research.
GENERAL IMPLICATIONS

Many authors emphasize the role of psychological factors in the allergic disorders by considering the psychological treatment. The general assumption has been that if it resulted in cure or improvement in symptoms, psychological factors must have been important in the disease entity. Thus the particular value of this kind of study may be emphasized by considering the following points:

There are some determining factors associated with certain personalities which make that individual more susceptible to certain illnesses and more resistive to others. Such a study may serve the purpose of a sensitive indicator that certain illnesses might be present even when not otherwise suspected. Personality pattern may determine whether an illness will develop or not. They may also influence its progress and can be a useful prognostic tool.

A personality study can prove to be critically useful in rapidly identifying patients in need of greater psychological support. Though it is not the intention of the investigator to label all allergy patients as psychological cases, yet all the same they may be having psychological problems as reflected in their personality profile. Psychiatrists and psychologists can suggest ways and means to develop better coping up behaviour.
Assessing personality characteristics and psychological problems have some significance in assessing patients with the same characteristics for group counselling. Evaluation of an allergy patient's personality characteristics, in many cases helps in understanding of why a particular person has contracted allergy under the given circumstances. Further, it could give clues for possible psychotherapeutic intervention in addition to the usual allergological methods. There are enough anecdotal accounts of the successful psychological treatment with allergic patients to conclude that at least sometimes it is of benefit in controlling allergic symptoms, reduction in the number of attacks and medication intake. Further it is rather difficult to say as to whether high scores on personality variables are the result of the disease or it is a long standing pattern of life style.

The significance of the finding can be understood in the light of the fact that increased anxiety, higher neuroticism, alienation and poor adjustment may hamper quick recovery of the patient and it may prolong invalidism. Psychotherapeutic intervention at this stage may lead to better recovery and less chances of psychic invalidism.

Various psychological treatment techniques have been successfully applied to the allergic patients, i.e., emotional support, counselling and reassurance, extensive individual or group psychotherapy, tranquilizing drugs,
suggestions or hypnosis. Among the very recent, most frequently tried other psycho-therapeutic methods are relaxation training, autogenic training biofeedback and desentization.

Psychological management of the patients could reduce anxiety, neuroticism and adjustment problems amongst allergy patients. Since significant differences were found amongst males and females and also in the three different age groups i.e., young, middle and old on some of the personality variables, so for any psychological intervention it should be ascertained as to which groups need more care. Personality study can be of great help in forming certain impressions about case management and outlining the treatment programme, overall understanding of the psychological factors involved and in enhancing the rate of recovery. It can help the individual recognize the role of emotions in the development and precipitation of illness generally and of his illness in particular. Such an approach may prove to be helpful to improve the capability of some patients to manage their lives, to deal with unconscious conflicts and to gratify needs in personally and socially acceptable ways. The efficacy of psychological intervention may help in reducing excessively high frequencies of medical utilization. However, the early identification of those patients whose personality predisposes them to the psycho-maintenance of illness could lead to greater savings.
It may be suggested that, in the treatment, a collaborative approach may prove to be helpful. As over the past several years many allergists have also stressed the importance of multi-causal factors in allergies and have recognized the need to treat the "whole-patient" (holistic-approach). They have emphasized that in treating patients with allergy, both physical and psycho-social environments should be investigated. The importance of these multi-causal theories now seem to be fairly well accepted (Kurata et al., 1976, Abramson & Peshkin, 1980; Goyeche et al., 1980; Feldman et al., 1982; Tunsater, 1984 and Bengtsson, 1984).

Thus such a study will be of paramount importance, from national point of view because of the wastage of working hours from sickness and also for the individual as it tends to effect his work and life in general.

SUMMARY

The present study was carried out to investigate the relationship between certain personality variables and the respiratory allergic disorders. Following were the aims of the present study:

AIMS:

(1) The main aim of the present investigation was to determine, if certain personality traits distinguish allergic individuals (e.g., Respiratory allergy) from normal healthy individuals and individuals suffering from non-allergic respiratory disorders (Tuberculosis).
(2) To find out if any important personality differences exist between the following two groups:-

(i) Those persons with symptoms of allergy illness, who clearly demonstrate an allergic constitution, as inferred from positive skin test results, family history and personal history.

(ii) Those persons who do not demonstrate a constitutional diathesis, or do so only minimally.

(3) To find out if the duration of illness is related to the already mentioned personality variables selected for the present study.

(4) To find out if age and sex are significantly related to the personality of the subjects suffering from respiratory allergic disorders by comparing them with non-allergic controls.

The following hypotheses were proposed on the basis of review of literature:-

(1) The personality profiles of the patients with allergic disorders would be significantly different from the sample of the normal individuals on the traits chosen for the present study. It was hypothesized that the allergic subjects would score higher on the traits like anxiety, neuroticism, hostility, anomie and alienation and will be low on adjustment.

(2) Amongst the allergic patients classified into three categories, i.e., strong, moderate and weak reactors, it was hypothesized that significant personality differences may be located on the personality traits included in the present
study. The weak reactors would score higher on the traits like neuroticism, anxiety, hostility, and aggression, alienation, anomie and score lower on adjustment, when compared with the strong and moderate reactors.

(3) There would be significant differences between patients high in duration of disease as compared to the patients with lesser duration. The former would be higher on the traits like neuroticism, anxiety, hostility and aggression, and lower on adjustment.

(4) In the absence of very many studies and contradictory findings in this area, null hypothesis was proposed regarding the differences between the personality profiles of the allergic and tuberculosis patients.

**SAMPLE:**

The final sample of the present study consisted of 405 individuals, categorized into the following three groups:

<table>
<thead>
<tr>
<th>Groups</th>
<th>Total N</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory Allergy (Experimental group)</td>
<td>150</td>
<td>111</td>
<td>79</td>
</tr>
<tr>
<td>Tuberculosis Control group I</td>
<td>98</td>
<td>72</td>
<td>26</td>
</tr>
<tr>
<td>Normals Control group II</td>
<td>117</td>
<td>65</td>
<td>52</td>
</tr>
</tbody>
</table>
The criteria was outlined for the selection of subjects in each group. The following inventories were administered to the subjects: Bell's Adjustment inventory, Sinha's Anxiety Scale, Hostility and Direction of Hostility Questionnaire, Cornell Medical Index-Health Questionnaire, P.G.I. Health Questionnaire N-2, Pearlin's Scale to measure Alienation and Srole's Scale to measure Anomie and Allergy performs. To see the effect of level of skin reactivity (high, moderate and low) on the selected personality variables, one way analysis of variance was carried out for males and females separately and also for the total sample. None of the F-values for the personality variables were found to be significant.

To see the effect of duration of illness on the personality variables, one way analysis of variance was carried out for both the allergy and tuberculosis group. For the allergy group, no F-value was found to be significant. This indicates that the allergic individuals do not differ significantly with different levels of duration of illness on the selected personality variables. In the tuberculosis group, F-values were found to be significant only for total adjustment (p < 0.01) and for direction of hostility (p < 0.05).

To determine the relationship between certain personality variables and the respiratory allergic disorders
(by comparing the personality and demographic variables of the allergic and non-allergic individuals) three-way analysis of variance with unequal frequencies was computed \[
3 \text{ (allergy x tuberculosis, normals) x 2 (males and females) x 3 (young, middle, old)} \]. The obtained results are given below:

1. In the analysis of variance for disease, sex, and age on neuroticism, the F-values for the main effects of disease, sex, and disease x sex interaction were found to be significant at .001, .001, and at .05 level respectively. Comparison of the means for the three groups on neuroticism revealed that normal subjects were significantly lower on neuroticism than the subjects in the allergy and tuberculosis group. But no significant differences were found on neuroticism between the subjects falling in the allergy and tuberculosis group. Also, no significant differences were found between males and females in allergy and normal group. But in the tuberculosis group, females were found to be higher on neuroticism as compared to males.

2. The F-values for the main effect of disease and disease x sex x age interaction for alienation were found to be significant at .05 and .001 level respectively. These results indicate that the disease, sex, and age are important in determining alienation. From the analysis a few trends have been observed: Amongst the
three disease groups, tuberculosis subjects are higher on alienation. Females scored higher than males. These differences are sharper in the younger and middle age group. Almost similar pattern is seen for the males as well. But for the middle age males, the differences are not as sharp as for middle age females. Nearly overlapping curves (Fig. 2) of young and old males and females in the allergy and tuberculosis groups show no differences on alienation. Whereas amongst the normals, there are differences between males and females belonging to the category of young and old females.

3. In the analysis of variance for disease, sex and age on anomie, only disease x sex x age interaction was found to be significant. Rest of the F-values were found to be non-significant. The significant triple interaction shows that disease does affect but differently at different levels of age or sex or together. From the analysis, a few trends have been observed. (1) Younger and middle age females are much higher on anomie in the allergy and tuberculosis group as compared to their male counterparts. (2) For the old females the direction of results is different as old females score higher than old males in the allergy and normal group but score very low on anomie in the tuberculosis group as compared to their male counterparts. (3) The graph (Fig. 3) also clearly shows that trend of scores
on allergy for the young and old females in the three disease groups is just opposite to each other. (4) The differences on anomie scores in two disease groups (allergy & tuberculosis) are less pronounced in the groups of younger and middle age males as compared to the other four groups.

4. The F-values for the main effects of disease and sex on adjustment were found to be significant at .01 level. All other F-values were found to be non-significant. The significant F-values for disease and sex indicate that there are significant differences between males and females falling in the three groups i.e., allergy, tuberculosis and normals. Females obtained higher mean scores than males in all the three groups. But these differences were found to be statistically significant only for the allergy group (t-value significant at .05 level).

5. In the analysis of variance for disease, sex and age on hostility, the F-values were found to be significant for disease (≤.001), age (≤.05) and disease x age (≤.05); disease x sex x age interactions (≤.001). Rest of the F-values were found to be non-significant. From all the significant F-values it is concluded that males and females in the three disease groups differ significantly on hostility in the three age groups.

Comparison of the means revealed that normal subjects are significantly lower on hostility as compared to the subjects
in the allergy and tuberculosis group. No significant differences were found between the allergy vs tuberculosis group. But t-values were found to be significant at .001 level for both the allergy vs normal and tuberculosis vs normal groups.

The triple interaction reveals that for both allergy and tuberculosis group, higher mean scores for hostility were obtained by the younger patients than by the middle or older age patients.

6. The main effects of disease, sex and disease x sex x age interaction for direction of hostility were found to be significant at .05, .01 and .001 level respectively. Comparison of the means on direction of hostility revealed that tuberculosis subjects are lower on extrapunitiveness than the allergy and normal groups. No significant differences were found between allergy vs normals and tuberculosis vs normals. But for allergy vs tuberculosis group, t-value was significant at .05 level. Significant sex differences were found in the normal group (t-value < .01 level) and not in the allergy and tuberculosis group. The significant triple interaction reveals that the nature of age x sex interaction is different for the three disease groups.

7. The F-values for the main effects of disease, sex and disease x sex x age interaction were found significant on anxiety at .001
and .05 level respectively. The rest of the F-values were non-significant. These results indicate that there are statistically significant differences on anxiety amongst the three groups. T-values were found to be significant at .001 level for allergy vs normal and tuberculosis vs normal groups. Significant F-value for sex on anxiety reveals that there are significant differences between the males and females falling in the three groups. The overall picture of the results show that females are higher on anxiety scores than the males. These differences are more pronounced in the tuberculosis group.