Chapter I

INTRODUCTION

This chapter presents a brief overview of the study. The problem of the study is described with a brief supporting review of the literature on the problem, followed by the presentation of the objectives and the general methodology used. Different aspects of the study including the results have been dealt with separately. However, an overview of the methodology common to all the variables of this study is presented here.
Chapter I

INTRODUCTION

The Problem

In the history of Educational Psychology, the last decade is marked by a number of innovations in the technology of teaching and researches on the social and psychological characteristics of educational organisations accelerating the process of student development. The beginning of these innovations and researches is marked by the publication of the *Handbook of Research on Teaching* (Gage, 1963). A number of issues in educational psychology covering areas such as statistical techniques and experimental designs used in educational research, measurement of classroom interaction, testing cognitive abilities and measuring noncognitive variables, teacher personality etc. have been discussed by the leading educational psychologists of the time, who also provided excellent reviews of researches conducted in that area till then. Areas in which research efforts have been concentrated in recent years are: programmed instruction, teacher-pupil interaction and teacher behaviour in the classrooms (mainly using Flander's interaction analysis technique or its modifications), achievement motivation, organisational characteristics and environment of the educational institutions, and adoption of educational innovations.

Researches conducted abroad on these lines vary
from elementary school samples and high school samples to the samples from professional schools in the fields of medicine, nursing, engineering, law and theology. While this is the scene abroad, influenced by the national needs (which center round the school education in a drive to uplift the literacy rates in the country with proper attention to the quality of education) educational psychologists in India seem to have concentrated their efforts on studies of school achievement, teacher training, teacher attitudes, student habits and personality. The same is revealed in a recent trend report on educational psychology by Buch(1972). Although Indian researchers have recently started working on some of the important areas like the technology of teaching* (Shah,1971; Patel et. al., 1971) classroom interaction analysis(Pareek and Rao,1970,1971,1972; Buch and Santhanam,1971,1972), adoption of educational innovations(Bhogle,1971; a few researches are in progress at the Centre for Advanced Study in Education,M.S.University,Baroda); achievement motivation (Mehta,1969,1969a,1969b,Gokulnathan and Mehta,1972) and school climate(Sharma,1968,1969,1971, Bayti,1970,Mathew,1970); they have been concentrating their efforts on high school students. Research on higher education in general, and professional education in particular, is rather lacking and perhaps it is

*A brief review of the researches on programmed learning in India are given in an article by Kulkarni and those in medical education in another article by Lysaught and Rao, both published in the book edited by Patel et. al.(1971).
Merton et al. (1957) in a series of studies on medical students attempted to investigate the career choice patterns of medical students and their professional socialization (acquisition of skills, knowledge, values and attitudes that are relevant to the profession) in the college years. Their social-psychological study of the professional socialization of medical students on a number of areas like their attitudes towards patients, diseases, and various specialities provided a number of hypotheses as well as a lot of insight into the educational psychology of medical education, in terms of delineating the role played of different agencies in socializing the medical student. This area was further explored by Becker et al. (1961) who conducted similar researches on medical students, making use of a variety of survey research techniques in an extensive study of a group of medical college students. Although their research touched the role played by the college and other agents in the development of professional perspectives (socialization) of students, they questioned the long-term implication of such socialization effects. Moreover, their methodology was too simple to yield any theoretical insight into the effect of the college on the student development variables and quantification is rather poor. A number of researches appearing later as attempts to measure the effect of college on student development used better instruments and scaling techniques to quantify the institutional environment and the student development.
and the pooled characteristics of students of a college could be viewed as the objective personality characteristics of the students of that college. Taking this into consideration the students' perception of their college could be taken to represent objectively the subjective psychological climate of that college and the pooled characteristics of students of that college could be viewed as representing objectively the characteristics of these students.

Using this framework of environmental research provided by Stern (1964), and keeping in view the classical studies on social-psychology of medical education by Merton et al. (1957) and Becker et al. (1961) the following broad objectives were developed on which the present study is based.

Objectives

1. To study the perception of medical college environment by the medical college students and to describe the tendencies of their perceptions;

2. To study whether students of different colleges perceive their environment in significantly different ways;

3. To study whether some of the personal background factors (like age, sex, educational and occupational status of parents and family income) and the career choice-background factors (like age of
decision to study medicine, preference to other professions before and after joining medicine, and the role played by different agents in the choice of medicine etc.) have any relationship with student's perceptions of the college environmental variables.

4. To study the professional socialization patterns of medical college students (students' perceptions and evaluations of their profession, their professional aspirations and apprehensions, work-value patterns and academic achievement) and to describe their socialization trends;

5. To study whether students of different colleges have significantly differing professional socialization patterns, to identify and to describe such varying professional socialization patterns of students from different colleges;

6. To study whether the personal background factors and the career choice background factors (mentioned above) have any significant association with the professional socialization scores of these students;

7. To study the interrelationships between the perceived college environment and the professional socialization of medical students.

General Methodology

Concepts

Medical college environment in this study was defined as consisting of a set of institutional variables
that (a) exist in the psychological field of medical students, (b) perceived and interpreted by them differently (due to the interaction of their need systems with the objective existence of these variables), (c) are felt by their teachers as relevant and useful in studying college environment and therefore, describe the medical college in ways that differ from individual to individual and group to group.

Professional socialization in this study was defined as the acquisition by the medical students the attitudes, values, aspirations, knowledge and skills related to his profession during his training as student-doctor. The socialization variable studied include student perceptions and evaluations of the profession, professional aspirations and apprehensions, work-values and academic achievement. Details of literature on these concepts are presented in the respective chapters.

**Instruments**

In order to measure the students' perceptions of the medical college environment a 100-item Medical College Environment Inventory was developed. This inventory has 9 scales. Scores on separate 9 scales as well as a total score are obtained. Some of these scales are comparable to Hutchins' 6-factors of the Medical School Environment Inventory.

A Likert-type rating scale was developed to
measure the students' perception of their profession. A questionnaire was developed using Cantrill and Free's self-anchoring technique for measuring professional aspirations and apprehensions. A Physician's Professional Work-values Inventory was developed by using paired comparison method to measure 10 values: academic, creative, independence, rural, social, security, status, economic, work-conditions, and co-workers. Aggregate of the examination marks secured was used as a measure of academic achievement. (Knowledge and skills).

The final questionnaire consisting of 6 parts is given first in Appendix 1. The part which follows the general instructions to the subject contains items on personal background and career-choic background of the students. The second part consists of the 100-item MCSI. The third to sixth parts of the questionnaire contain items of professional socialization variables, viz: Perceptions of the Profession Inventory, Professional Aspirations and Apprehensions Questionnaire, academic achievement related items and Physicians Professional Work-values Inventory.

Sample

Seven medical colleges, located in the following towns were selected for the study: New Delhi, Rohtak, Udaipur, Baroda, Guntur and Warangal. As may be seen these colleges cover North, Central, South and Western States. Repeated attempts made to include two medical colleges from Calcutta did not materialize due to the
continuous disturbances at that place, although the authorities were very cooperative. Only final year M.B.B.S students (who are in one or two semesters previous to internship were chosen for the purposes of this study for the following reasons: (1) Due to their interactions of about 4 to 5 years in the college the final year students would have developed more or less stable perceptions of their environment (studies reviewed in chapter 2 also indicate this). (2). As they are about to enter the final stage (internship) of their professional student life, they have most probably started thinking of their professional future, aspirations, apprehensions and so on due to the cognitive map they have formed of their profession (as indicated by the studies reviewed in chapter 3). (3). And therefore this stage seems to be a highly suitable stage for the study of the students' perceptions of their institutional climates and their professional socialization. (4). And lastly, in the absence of a longitudinal study, relationships found in the variables measured at this stage of the medical students' college life would give some indications to the college effects besides the indications of statistical relationships between the two sets of variables. Keeping this in view all the final year students of each of the medical colleges selected were proposed to be studied. However, in some colleges data could not be collected from
all students, due to some extraneous reasons of non-availability of students due to their temporary absence.

The questionnaire was handed over personally to students (when they were in wards, hostels, group demonstration lectures etc.) in four colleges and handed over in groups (when they were in classrooms) to students of three colleges. Purposes were explained (individually as well as in groups) to them and informal discussions were held for a few minutes after such explanations to impress upon them that it was purely for research purposes and they can respond without any inhibitions and reservations. They were specially instructed not to consult each other while answering the questionnaire. About a period of a week to ten days (in one college two weeks) on average was spent in each college to collect back the protocols and also in an informal study of the college by way of discussions with some of the teachers and gathering their impressions about the instruments used in this study etc. The protocols were collected back from the students personally by going to their classrooms, hostels and hospital wards. Individual attention was paid wherever possible when the protocols were collected by way of checking for incomplete or unattentive responses, etc. and to gather students' reactions and feelings and so on.
It was also checked whether they answered independently or not. Wherever the investigator doubted from these discussions that the student answered in group (by consulting others) all such protocols were rejected for final analysis. However such cases were found rarely. Approximately about 30% of the students returning protocols could not be contacted as they have returned their protocols through their friends or left them with their teachers. In such cases protocols were checked for similarities in responses to see whether there were any group answerings. Such similarities in responses were found in few students (about 6 to 7 pairs) in all colleges and wherever doubts were there the protocols were rejected. All such rejections were rather few and amount to about 6% to 7% of the total sample.

Finally accepted sample consisted of 466 students from these seven colleges. For reasons mentioned earlier the sample sizes of different colleges were different. Some of the students did not answer all the parts completely, and some gave incomplete answers. All such cases were deleted from the final data analysis. The college-wise break-up of the total sample used for final data analysis is presented in Table 1.1. Further details of the sample used for each dimension are presented while discussing the results in the subsequent chapters.
Chapter 2 gives the other details of break-up of the sample.

Table 1.1
College-wise and variable-wise break-up of the sample used in the final analysis.*

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variable</th>
<th>College No and Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Total-sample accepted for final analysis</td>
<td>116 99 59 22 31 82 57</td>
<td>466</td>
</tr>
<tr>
<td>2.</td>
<td>Sample for comparisons of college-wise differences on M.C.E.I.</td>
<td>103 85 55 21 28 75 56</td>
<td>423</td>
</tr>
<tr>
<td>3.</td>
<td>Sample used for item-wise comparisons on M.C.E.I.</td>
<td>110 96 57 21 30 78 56</td>
<td>448</td>
</tr>
<tr>
<td>4.</td>
<td>Sample used for college-wise comparisons on professional perceptions</td>
<td>88 79 49 20 25 69 53</td>
<td>383</td>
</tr>
<tr>
<td>5.</td>
<td>Professional level of aspiration</td>
<td>104 85 55 21 28 75 56</td>
<td>424</td>
</tr>
<tr>
<td>6.</td>
<td>Content analysis of aspirations and apprehensions</td>
<td>97 78 52 21 22 78 52</td>
<td>400</td>
</tr>
<tr>
<td>7.</td>
<td>Work-values</td>
<td>91 79 54 21 27 71 51</td>
<td>394</td>
</tr>
<tr>
<td>8.</td>
<td>Academic Achievement</td>
<td>99 68 39 17 27 70 48</td>
<td>368</td>
</tr>
<tr>
<td>9.</td>
<td>For description of trends in the above variables</td>
<td></td>
<td>309</td>
</tr>
<tr>
<td>10.</td>
<td>For intercorrelations among above variables</td>
<td></td>
<td>309</td>
</tr>
</tbody>
</table>

* Sample differs for different computations for reasons such as incomplete data and rejection by the computer for even minor incompleteness in the responses.
Data Analysis

Various statistical techniques have been used in the analysis of the data. Mainly the trends of the climate variables as well as the socialization variables are described using the means and standard deviations of the total sample. Item-wise percentages of students answering (or item-wise mean scores) were worked out for further insight into the trends. Significance of the mean score differences between different colleges were tested out by using t ratios. Thus, for each variable 21 mean comparisons had to be made and t ratios computed as there were a total of 7 colleges. Significantly differing colleges were further analysed for micro-level differences through item-wise differences among these colleges. Chi-squares were worked out to test the association between each of the background variables (age, sex, father's education, age at the decision to enter medicine etc., a total of 15 variables) and each of the campus climate variable scores (a total of 25 variables). Thus altogether 25 x 15 = 375 chi-squares were computed between the two sets of variables. Means were calculated for each of the cells of these chi-squares but only for statistically significant chi-squares the means are presented and discussed. Pearson's product moment correlation coefficients were computed to test the relationships between campus climate variable and professional socialization variables. Besides these other statistics like correlational analysis and Cluster analysis were used to find out the reliability and homogeneity of the instruments.
Organisation of the Thesis

Besides this introductory chapter the thesis is organized into five more chapters. The second chapter presents a profile of the personal and professional background characteristics of the students. Chapter 3 deals with the perceptions of the campus climate and chapter 4 deals with professional socialization variables. Chapter 5 deals with the interrelationships between these variables. On the basis of the results of this study a theoretical Model of student socialization in college is presented in the last chapter.