A STAGE IN THE MAKING OF A PHYSICIAN

by

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ABSTRACT

The process of the socialization of first year
medical students is analyzed according to a paradigm of
adult socialization. This paradigm consists of three sets
of variables, that is, independent variable (I), personal
background characteristics, independent variable (II),
elements of interpersonal relation in which students are
involved, and dependent variable, the cultural content of
socialization.

The study shows (a) that during the first year
the medical students tend to think of the first year as
the least important period for their later career. Besides
being least important, the first year appears to be the
most difficult. They also feel hard pressed for time --
there seems to be too much to learn for the time allowed.
However, they expect that as they go through medical school,
their training will be less difficult. A majority of them
find themselves very much involved in the competition
among themselves. Their attitudes towards this are rather
neutral. They express satisfaction with their faculty
members in the given direction in their studies. (b) In
the assessment of their performance during their training,

a majority of the students classify themselves as average, the reference point of which is largely found in themselves rather than in their fellow students, or in the opinion of the faculty members. (c) With regard to their attitudes and values; students tend to hold the initial values which they had on entering medical school, namely, "people-orientation." No student thinks of himself as a doctor in the first year, in fact, from the beginning he did not expect to establish his professional self-image in the first year. On the other hand, the outline of the image of physician which emerged on entry into medical school remains almost the same at the end of the year with only a slight modification. The image is characterized primarily by personality traits, and a task-oriented emphasis. As the year comes to an end, a substantial proportion of students tend to specify themselves as preferring general practice as their later career. This was not chosen by anyone at the beginning of the year. Their expected income differs little from the actual current income of physicians. They tend to express more satisfaction with their chosen career as they progress through the first year.

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CHAPTER I

INTRODUCTION

This is a study of one type of adult sociali-
zation,[1] the socialization of medical students. By adult
socialization we mean the acquisition of attitudes, values,
interests, skills and behaviour patterns defined as appro-
priate for the status of physician which medical students
will eventually occupy. Thus defined, the concept is dis-
tinct from that of "education." Adult socialization refers
not only to the acquiring of knowledge, and the learning of
skills, attitudes, and behaviour formally provided by the
institutionalized arrangements of the medical school, but
also to such learning that is implicit, unwitting and
informal, as a by-product of patterned experience.[2]

Since there are many similarities between sociali-
zation in early childhood and in adulthood, the concept
usually refers to a process continuing throughout the life
cycle. However, adult socialization can be distinguished
from the concept of child socialization in the sense that
the former refers to the learning of attitudes, values and
behaviour patterns which prepare students for the future
status and role of physician, while the latter indicates the
learning which simply equips the child to meet current demands.

The following are important characteristics evident in the socialization of the adult but not in that of the child. In the following the medical student will be used as an example of adult socialization.

(1) The adult is not a <u>tabula rasa</u>.[3]

He has already learned a number of roles and values which give him a perspective for evaluating his world. It is from this perspective that he chooses an occupation and fixes his expectations of his work role. That is, he has lay conceptions[4] of the medical profession based on generalized societal values.

(2) The adult is required to have a certain type of background.

The first task of adult socialization is the transformation of the lay conceptions of the outsider into the technical orientations of the insider. The professional school accomplishes this transformation by selecting applicants who could meet its established standard. Applicants may come to medical school with educational backgrounds ranging from Junior Metriculation to a Bachelor's degree.[5] Besides a certain degree of scholarship, the professional school requires a diversity of talents. The admission committees of medical schools urge that only those students be admitted who have demonstrated a high level of intellectual ability, integrity, perseverance, responsibility and intellectual curiosity.[6]

(3)   The adult has no alternative choice.

Once the adult has committed himself to becoming a member of the profession, his activities are definitely directed toward the goal formally defined by the professional school. For the medical student, medicine is more likely to be a terminal occupation.

(4)   Technical competence is necessary.

The adult must have a command of technical competence. Almost all the literature on the professions emphasizes that one of the defining characteristics of a profession is its possession of a body of specialized skills as a prerequisite for professional licensing. Professional schools tend to deny novices access to clients until they have been certified as proficient, or to allow only partial access, which gradually increases as the novice acquires more skills.[7] Clients or the society will, in general, concede autonomy to the profession only if its members are able and willing to police themselves; will grant higher fees or prestige only when both its competence and its area of competence seem to merit them; or will grant an effective monopoly to the profession through licensure boards only when it has shown that it is the sole master of its specific craft, and that its decisions are not to be reviewed by other professions.[8]

(5)   Multiplicity of authority and influence.

The socializer in adult socialization is a collective

entity. Each socializer in this collectivity is a source
of authority and influence upon the socializee.

Problem

Socialization of the medical student takes place
primarily in the medical school through social interaction
with people who are significant for the individual, namely
faculty members, fellow-students, the complement of associ-
ated personnel (nurses, technicians, case workers, etc.),
and patients.

These personnel with whom the student interacts
are conceived as interdependent components of a social system.
The medical student is therefore affected, to a significant
extent, by his social relationships with others in the school,
and by the values these others hold. Such factors are an
important part of the social environment of learning of
medical students.

Generally speaking, this environment can be thought
of as social, comprising the relationships that obtain between
the people in the school, and as cultural, comprising the
values held by these people. Social relations and cultural
values are held to be related: each affects the other.[9]

In the light of the above considerations we intend
to introduce a scheme, -- albeit a partial and a temporary
one -- of adult socialization. However, it will, at least,

serve as an initial step in the establishment of a more comprehensive analytical scheme of the adult socialization process.

It is not our major concern to evaluate the technical performance of medical students, although we do not neglect such data as grades and ratings. But for the purpose of this study, this technical professionalization is considered secondary to the complementary development of various attitudes and values.

Our analytical framework of adult socialization consists of three types of variables, the distinction of which is apparent in the above discussion. They are independent variable (I), independent variable (II), and dependent variable.[10]

Firstly, the independent variable (I) refers to the inherent personal characteristics namely, age, marital status, economic pressure, family and home community background.

Secondly, independent variable (II) includes the components of interactions in medical school which might be instrumental in bringing about changes in the dependent variables as will be discussed later. As noted before, the medical student is seen as involved in a network of interpersonal relations in which three significant groups are found: peers, medical school faculty members, and patients. In addition to these three factors we also included the

students' self-evaluation of their ability in their chosen
field as a part of the interpersonal network in the sense
that the students' self-evaluation, as suggested by Kendall,[11]
mediates the interaction between them and the above three
groups.

Thirdly, the dependent variable consists of those
components of the content of socialization in the medical
school namely:

    (1) motivation: occupational value,

    (2) identification: professional self-image,

    (3) the image of the physician,

    (4) specialization,

    (5) remuneration.

This formulation will be illustrated with the
available data in the following chapters. Since we are
dealing with secondary data provided, our effort to apply
this formulation to the data is inevitably very limited. We
will try to fit our data into the framework as far as possible.
Prior to further exploration we will briefly discuss each
variable.

I. Independent Variables

(1) Age

The performance of students with different back-
ground characteristics responds differently to their
motivations and experiences in medical school.

Age, then, is the first characteristic to be considered as a variable in the socialization of medical students. Since the period of this socialization generally (not necessarily) is confined to certain age groups, the pressure which the process of socialization will exert upon students will turn out to be different according to their age.

Differences in students' ages during the socialization process may be significant as an antecedent variable in two ways which may be distinguished. First, the older students seem to be in a position to hasten to finish their course more than younger students. Second, it is often argued that a person's creativity is somehow related to his age.[12] Age, in this sense, may serve as a clue to explain the different pattern of students' attitudes or values in medical education.

(2) Marital status

Another factor which must be considered in relation to medicine's long educational process is the set of recent changes in the mode of living of students -- changes associated with the rapid changes in our society. Increasingly, medical students are marrying at an earlier age. With marriage, however, a number of problems arise. First and paramount is the necessity for the support of a family. In addition, the entire relationship between the sexes is altered. In most cases, until the arrival of a child, the working wife

contributes the largest share to the support of the couple.
The increasing load of guilt the student feels as the result
of his wife's financial support, or the birth of a child
drive him to work at an increasing pace.[13]

As a concomitant to this, there is a great increase
in work attitudes on the part of the working student. Under
the stress and strain of supporting a family by doing part
time work that is not rewarding other than financially, the
student is in a hurry to finish his education. The
influence of student's early marriage on the educational
process in this sense deserves our attention as another
variable at socialization.

(3) Economic pressure

It is often claimed that the high cost of a medical
education usually prevents many able students from entering
the medical profession. Such comments may also further imply
that financial anxieties seriously hinder optimum learning
after the student is admitted to medical school. In this
regard we are trying to ascertain the effects of financial
pressure on the process of learning.

(4) Family background

It is generally known that sons of professional
families are more apt to become professional themselves,
than are sons of families in other occupations, especially

the lesser white-collar and manual occupations. It may be, therefore, that difference in social origin might account for the observed difference in students' performance in medical school.

(5) Home community

A slight majority of medical students come from urban centers. Difference between residents of large and small communities with regard to environmental setting have raised many questions such as the following: How do residents of large and small communities compare in their performance in medical school? Do city-dwellers have special competitive advantage because of any superiority in their educational preparation because their environment has taught them how to be successful strivers?

II. Independent Variables

(1) Social relations among Students: co-operation and competition

Co-operation and competition are universal elements in the interaction among group members. These are not separate items, but are phases of one process which always involves something of both.[14]

As soon as students enter medical school, and begin to interact with each other, they recognize that they have a

common interest which leads them to co-operate in the achievement of it. Friendship is one outcome of this interaction, and plays a fairly important role in their socialization.

However, even in the most intimate associations, there is some point at which interests and attitudes diverge. Students seek to attain "a desirable place in the prestige hierarchy" which is, by definition, limited to a few. It has been observed that the student in training in medical school, competes for grades, prizes, honours, and fellowships. The selection of candidates for these rewards is based upon criteria that assume competition for these "scarce resources." Competition, in this sense, is directly related to the productivity of individuals.

This study will attempt to determine:

(a) The genesis of co-operation and competition among medical students.

(b) The consequences of changing peer-relations in terms of professional interests and values.

(2) Reciprocal relations of students and faculty

Unlike the relation with their peers, the students' interaction with faculty members of medical schools is usually assymetrical. That is, the teacher is more likely to influence his students than to be influenced by them. But all faculty

members are not equally influential in student socialization. Instead, students choose a few faculty members whom they try to emulate.

It can be further assumed that value climates constituted by the faculty differ to an unknown degree among different medical schools.[15] The basic problems in this regard are to ascertain: (1) how the values held by the medical faculty are transmitted to students? (2) the extent to which specific faculty members serve as role models for students; who chooses whom; how is this selection made; and how do changes over time occur in this selection process?

(3) Students and patients

The care and cure of the patient is, after all, the main goal of the student in training, and the principal social justification for the medical profession.[16] But students have contacts with patients throughout their training in medical school and this undoubtedly affects the patterns of behaviour which they finally develop.

In this regard an attempt will be made to determine:

(1) the norms governing professional behaviour and attitudes toward patients,

(2) the orientations of students toward patients,

(3) the consequences of conformity or

non-conformity to professional norms

for effective learning of the role of

the physician.

(4) Self-evaluation

A student's efforts to reach his goal are subjected
to evaluation by objective criteria, as well as by his own
subjective assessment. This self-evaluation of his own
ability is not always in accord with the objective evaluation.
Students of the same degree of ability in selected respects
rate themselves differently depending upon their choice of
reference groups; that is, whether they compare themselves
with classmates, faculty members, practising physicians, or
interns and residents. When self-evaluation deviates from
objective assessment, it may be functional as well as dys-
functional for an individual in the sense that it results in
the "self-fulfilling prophecy."[17]

In the light of these considerations, we attempt to
ascertain:

(1) the selection of reference individuals,
or groups, for self-evaluation,

(2) the deviation of self-evaluation of ability
from the measurement of ability by objective
criteria,

(3) the effects of self-evaluation in socialization.

III. Dependent Variable

(1) Motivation - occupational value

Participation in medicine as a profession is on a voluntary basis. When an individual chooses the medical profession, he thinks there is something "good" about it, and this conception of "good" is part of an internalized mental picture regarding what he wants out of life. To ask what an individual wants out of his work is, to a large extent, to ask what he wants out of life. It is, therefore, indispensable to understand the value an individual attaches to the medical profession when he chooses it. This value may not be the same as the one which predisposes him to remain in medicine.

Our major concerns, therefore, are:

(1) A comparison of the values held on entry into the profession with those affecting the decision to remain in medicine.

(2) The differentiation of these values according to independent variables (I).

(2) Identification

(i) Professional self-image

One of the most significant developments which occurs when participating in a professional role is the growth of a professional self-image. An individual takes

over the image of himself as the holder of a particular
specialty in the division of labour. Although a medical
student will think of himself as a student during the early
stages of his medical training, as he progresses through
medical school acquiring knowledge about medicine and having
contact with patients, he comes to regard himself as a doctor.
The length of time required for this professional self-image
to develop differs among individuals. This development also
varies markedly according to the type of relationship in
which the student finds himself.

The student who consistently feels and thinks like
a doctor is presumably more able to carry out his training
effectively. With this image, students learn who they are,
how they ought to behave, and they acquire a set of per-
spectives in terms of which their conduct is shaped.[18]

In the light of these considerations the following
problems emerge:

(1) Individual differences in the development
of a professional self-image.

(2) The variation of the professional self-image
in different types of interaction.

(3) Consequences of a professional self-image
for the socialization of the student.

(4) Mechanisms which facilitate the development
of a professional self-image.

(ii) Elements of identification

Identification with a professional role is not confined only to the title of the profession. The elements of identification with a profession can be further broken down; for instance, into occupational title, commitment to task, commitment to a particular organization or institutional position, and the significance of this position in the larger society.[19] Each of these has a part to play in professional identification.

This leads to the following questions:

(1) Is there a sequence to these elements of identification?

(2) What are the conditions for, and consequences of, the selection of different elements in identification?

(3) The image of the doctor

A medical student who identifies himself with a role model[20] will seek to approximate the behaviour and values of that model. A role model may be a specific individual, or person in whom the desirable characteristics of a physician are crystallized.

With regard to the role model of the student, the following problems will be discussed:

(1) Who do students choose as a role model
among faculty or outside the school?

(2) If they do not choose a specific person,
what do they consider to be the desirable
and undesirable characteristics?

(4) Specialization

Within medicine there is a wide choice of specialties
which offer alternative career lines, some of them mutually
exclusive from an early stage. These career lines are
variously ranked within the profession itself as well as out-
side. In the course of socialization students are exposed
to a variety of specialties, and are expected to choose one
of them. Thus, medicine entails not only desirable positions,
but also relatively undesirable ones which are necessary for
society.

The problem of the student's choice of a specialty
is, from the society's point of view, one of recruitment for
the social positions. Specific interest for one specialty
brings about a serious shortage for the recruitment of others.

In this regard we are mainly concerned with the
following problems:

(1) Who chooses what specialty?

(2) What conditions make a student choose
that specialty?

(5) Remuneration

Every individual has certain creative potentialities
which find greater or lesser expression in work. Part of the
richness of human experience lies in our ability to spend our-
selves in an activity which challenges and draws out our
highest potentialities. Consequently, the chances of living
a life characterized by productiveness and self-fulfillment
will depend to some extent on the degree to which our work
allows us to exercise our creative potentialities.[21] Then
there is also the question of rewards, especially money and
prestige. The enjoyment of material goods and services, and
the opportunity to follow a characteristic style of life hinges
on the remuneration one receives from his work. Therefore, the
individual choosing an occupation, does so with reference to
a host of wants which the extrinsic rewards of work may satisfy.

With regard to remuneration, the following issues
will be discussed:

(1) The amount of income students expect to earn?

(2) A comparison of expected incomes and the
actual income of physicians.

(3) Are students satisfied with their expected
income?

Method and the Background of Research

In September 1957, the Faculty of Medicine at the

University of British Columbia introduced a new course called
"Preclinical Session" to be taken by first year medical
students. Sociologists from the Department of Anthropology
and Sociology were invited to assist in an evaluation of this
new course. At the end of the first year of assessment, those
involved in both departments agreed that further systematic
assessment would be valuable. Up to May 1960, data have been
collected on the first year medical students during the
university terms of 1957-58, 1958-59, 1959-60. Every student
in the first year of medicine at the University of British
Columbia during the September of 1957, 1958, and 1959 was
asked to complete a questionnaire based on one used in the
studies of The Student Physician[22] but altered to suit local
circumstances. At the end of each academic year students were
again asked to complete the same questionnaire.

Our study is based on the data obtained in the
1959/60 academic year, and attempts to analyze the differences
in response to the September 1959 and April 1960 question-
naire. In Chap.II we shall try to understand collective
changes in variables which constitute the social structure of
medical school namely, relations of students among themselves,
with the faculty members and patients. Chap.III will also
deal with the collective changes in the rest of variables
which are centering around individual personality. This
collective change often does not account for individual changes
within the group. Therefore, in this chapter an attempt will

be made to ascertain what relationships exist between two selected variables, for instance, is the amount of expected income influenced by self-evaluation or rather by the home community? By having two different patterns of relationship between dependent variables and independent variables (II) on one hand and dependent variables and independent variables (I) on the other, we are able to estimate the effect of experience in medical school and of personal background upon the dependent variable.

Methodological Reconsideration

Research in this fashion presents a basic problem which has long been debated -- whether the behaviour that is being measured is purely verbal behaviour or whether it is behaviour the student is going to manifest in action.[23] Research conducted over a period of years indicates that well-constructed instruments using questions which require verbal agreement or disagreement are related to nonverbal behaviour.[24] Moreover, most of the attitude or value studies indicate that verbal behaviour is like other kinds of behaviour and is important because we are always dealing with words.[25] One way to study the actual behaviour is to have preliminary verbal behaviour. Since individuals can verbally express their conception of the more favourable alternatives from a set of alternatives, it is possible to infer, from the pattern of verbal choices over a series of situations, the latent

value structure influencing the direction of these choices.

Descriptive Aspects of Independent Variables (I)

In April 1960 there were fifty-nine registered first year medical students at the University of British Columbia. Not all of these students completed both questionnaires at both sessions. Therefore, when the questionnaires were "paired" for fall and spring there were only fifty sets which could be matched.

(1) Age

In September of 1959 respondents ranged in age from under twenty-one to over thirty years of age. As Table I shows, the majority of students -- sixty-one per cent -- belong to the age group twenty-one to twenty-five and only six per cent were over thirty years old. The average class age was 23.9 years.

(2) Sex

Table I indicates that the sex composition of the sample consisted of eighty-four per cent men and sixteen per cent women.

(3) Marital status

Only one student was engaged when the term began, but was disengaged by the time the term ended. As far as the

marital status of the sample was concerned, no change occurred during the year. In the spring of 1960, twenty-two per cent of the class was married. They had been married an average of 3.1 years. The range in years married was from one year to eight years. Five of the eleven married students had one child each in the spring.

(4) Social status

In an effort to determine from what kinds of backgrounds these medical students come, the occupations of their fathers are rated according to a Canadian occupational class scale.[26] Occupations are ranked in Classes from I, the highest to VIII, the lowest, according to combined standard scores from income and years of schooling by sex. The first three classes represent professional and upper income families. The "managerial" category has the largest representation. Eleven of the students' fathers are in this vocational group. The fathers of six boys and of two girls are medical doctors.

Other occupational groups represented in the classes I to III are school teachers - 4, accountants - 3, engineers - 2, real estate agents - 2, armed service officers - 2, a social welfare worker, a draughtsman, a chemist, and an unlisted professional.

The classes IV to VII are comprised of three farmers, a transportation foreman, a plumber, a furnaceman,

TABLE I

PERCENTAGE DISTRIBUTION OF THE SAMPLE BY AGE,
SEX, AND MARITAL STATUS

Age	Male	Female	Total
16 - 20 years	14	6	20
21 - 25	54	8	62
26 - 30	12	-	12
31 - 35	4	2	6
	84	16	100

Marital Status	Male	Female	Total
Single	64	12	76
Married	20	2	22
Engaged	-	2	2
	84	16	100

two office clerks, a metal fitter, a policeman, a guard, a cook, and a longshoreman.

One striking feature of our sample is that more than half of the students, seventy per cent, belong to classes I and II. This concentration in the upper classes does not allow us to make a comparison according to social status. We, therefore, tried to ascertain the present economic situation of the students by asking the following question both in the fall and in the spring.

"How difficult is it for you to finance your medical education?"

TABLE II

FINANCIAL PRESSURE

	Fall	Spring
	Percentage of students	
Very difficult	10	12
Fairly difficult	32	34
Not very difficult	36	36
Not at all difficult	20	18
No answer	2	-
Total students	50	50

As can be seen from the above table the economic situation of the students remained relatively unchanged between fall and spring.

(5) Community background

The communities where students spent most of their life were dichotomized into urban and rural areas. By urban area we mean all incorporated cities with a population of over 30,000 at the 1956 census in Canada. All the cities, towns and villages having populations of 30,000 or less in that year are defined as rural areas. Those students who lived in other countries are properly distributed either into rural or into urban areas according to the above standard. The majority of

students, seventy-two per cent, are from urban areas whereas only twenty-eight per cent are from rural areas.

Curriculum

In medical school an enormous amount of material is presented to the student which he has difficulty in digesting. As Becker and Geer pointed out:[27] "Though the student and faculty agree that the criteria for choosing what to learn should be relevant for medical practice, there is enough disagreement and uncertainty among the faculty as to what is relevant that the student is never presented with a clear directive to guide him in his own studies." This point is further illustrated by Renee Fox.[28] From the first the student is told that he will be "given" the major responsibility for learning, that information is not presented in readily usable form, and that no precise boundaries are set on the amount of work expected of him. Under these conditions, a beginning student faces the uncertainty of not knowing how much he should know, exactly what he should learn, and how he should go about his studies. This, according to Renée Fox, is the first kind of uncertainty encountered by a beginning medical student. Moreover, she also analyzes a second type. The student's experience in medical school concerning the magnitude of knowledge and the lack of strategy for study, lead him to realize the fact that even as a mature physician he will not always experience the certainty that comes with knowing all there is to know about the medical problems with which he is faced.[29]

He begins to realize that no matter how skilled and well-informed
he may become, his mastery of all that is known in medicine will
never be complete.

Renée Fox further pointed out a third type of uncer-
tainty derived from the first two. This consists of the
difficulty in distinguishing between personal ignorance or
ineptitude and the limitations of present medical knowledge.

Since we are only dealing with the first year medical
student, the second and third type of uncertainty do not deserve
as much attention as the first one. Before he begins to worry
about the uncertainty of medical knowledge he must tackle the
medical knowledge given by the instructor. He is too profes-
sionally immature to share the inherent uncertainty about
medical knowledge which is usually shown by a practising
physician. We will, therefore, discuss the first kind of
uncertainty in some detail.

The Calendar of the Faculty of Medicine at the
University of British Columbia lists the required courses for
the first year student as follows: General Biochemistry,
Outlines of Biochemistry, General and Advanced Biochemistry,
General and Advanced Biochemistry Laboratory, General
Pathology, Human Physiology, Advanced Mammalian Physiology,
Advanced Mammalian Physiology Laboratory, Human Behaviour,
Introduction to Medical Statistics, and Parasites of Man.
Besides these courses, each student is assigned to a family
in which there are young children, in order to permit obser-
vation of the growth and development of the children and the

interpersonal relations of a growing family. This is called

Preclinical Session as mentioned previously. As stated by

Renée Fox,[30] throughout the first year the student is

impressed with the magnitude and intricacy of medical know-

ledge, the scarcity of time in the medical world, and the

difficulty in the distribution of time and difficulties in

realizing the highest standards of medicine.

The first year student was asked his impression of

this situation.

> All things considered, how do you think
> medical training compares with each of
> the following kinds of training: studying
> to be a lawyer, studying to be an engineer,
> studying to be a dentist, training to be
> an army officer, studying for a Ph.D. in
> physics, and studying for a Ph.D. in
> psychology? Are medical studies more
> difficult, less difficult, or about the
> same?

As Table 1.1 shows, there is general agreement that

medical training is the most difficult other than obtaining

a Ph.D. in physics. One thing to be noted here is that more

than ten per cent of the students indicated their difficulty

in comparing medicine with other career training, such as

training to be an army officer, and studying for a Ph.D. in

psychology.

This assessment of the difficulty of medical

training, of course, is not based on the practical comparison

with other types of training since few students have

TABLE 1.1

COMPARISON OF DIFFICULTY OF MEDICAL TRAINING
WITH OTHER CAREERS. SPRING

Percentage of Students

Medical Training

Other careers	Much more difficult than	Somewhat more diffi-cult than	About the same as	Less difficult than	Don't know	Total students
Studying to be a Lawyer	70	24	6	-	-	50
Studying to be an Engineer	16	46	30	-	6	50
Studying to be a Dentist	12	52	32	2	2	50
Training to be an Army Officer	62	14	2	4	18	50
Studying for a Ph.D. in Physics	6	16	38	32	8	50
Studying for a Ph.D. in Psychology	20	36	24	8	12	50

experienced them. But the student has a perception of medicine as a difficult field to master. The difficulty which he faces with medicine is reflected clearly in his feelings about the time at his disposal. He seems to feel the scarcity of time for learning all that he is expected to learn. Table 1.2 indicates only thirty-six per cent of the students (in the Spring) feel that they have "ample" or "just about enough time" whereas the remaining sixty-four per cent feel that they do not have enough time.

As far as activities other than lectures are concerned, most of the students felt that they would not have enough time for following the latest medical advances in books and journals or following their own interests in the field of medicine. Even for the time spent with their family and friends, only a minority -- twenty-eight per cent -- expected to have enough time.

With respect to the students' opinion on the distribution of their time, they showed significant shifts of opinion between Fall and Spring in two activities, "following up your own interests in the field of medicine" and "reading the newspaper and keeping up with current affairs." For the former activity, students tend to feel more the scarcity of time. The latter activity shows a reversal, in that the proportion of students who feel enough time for this activity increased from thirty per cent to fifty per cent.

TABLE 1.2

STUDENT FEELING ABOUT TIME REQUESTED FOR CERTAIN ACTIVITIES

Percentage of Students

Time

Activity		Enough time[1]	Not enough time[2]	No answer	Total students
Learning all that you are expected to know in medical school	F[3]	36	62	2	50
	S	36	64	-	
Following the latest medical advantages in books and journals	F	4	94	2	50
	S	2	98	-	
Spending time with your family and friends	F	34	64	2	50
	S	28	72	-	
Following up your own interests in the field of medicine	F	20	76	4	50[4]
	S	8	92	-	
Reading the newspaper and keeping up with current affairs	F	30	68	2	50[5]
	S	50	50	-	

1. Two categories, "ample time" and "just about enough time" are combined.

2. Two categories, "not quite enough time" and "not really enough time" are combined.

3. F - Fall
   S - Spring

4. Percentage difference statistically significant at 0.05 level. ($\chi^2 = 4$ df = 1)

5. Percentage difference statistically significant at 0.05 level. ($\chi^2 = 4.16$ df = 1)

As Table 1.2 indicates, the recognition of the scarcity of time is what students already anticipated at the beginning of the school.

Fox further states[31] that the scarcity of time is one of the problems which are inherent in the professional role and in the situation of the mature physician. Students are thus introduced to the problem of the scarcity of time through the medical curriculum, and learn to cope with it in patterned ways which become progressively more like those of the physician.

Although students stress that medicine is most difficult to master, their views on their future training are not so pessimistic. Students were asked their views on their future training:

> Do you think that, as you move from the first
> to the fourth year of medical school, your
> studies will become more difficult for you,
> less difficult, or do you think they will
> remain relatively unchanged in this respect?

As Table 1.3 indicates, a minority -- ten per cent -- think of the coming years as more difficult while forty per cent state that they "will become less difficult," and another forty per cent claim they "will remain about the same."

Some interesting tendencies are indicated when students were asked how much they worried about being able

TABLE 1.3

STUDENTS' VIEWS ON STUDIES IN SUCCESSIVE
MEDICAL SCHOOL YEARS.   SPRING

Percentage of Students	
Will become more difficult	10
Will become less difficult	40
Will remain about the same	40
Don't know	10
Total Students	50

to have the kind of medical career they want. As shown in
Table 1.4 one-half of the students worried only a little,
while sixteen per cent expressed a fair amount or a great

TABLE 1.4

EXTENT OF STUDENTS' WORRY CONCERNING THE MEDICAL
CAREER THEY WANT.   SPRING

Percentage of Students	
A great deal	4
A fair amount	12
Only a little	52
Not at all	32
Total Students	50

deal of anxiety concerning their future career. Thirty-two
per cent indicated no anxiety.

Furthermore, a majority of students -- eighty per
cent -- feel that "basically, medical school is going to be
an enjoyable experience, even though it will mean very hard
work at times."

Despite the fact that students feel that medicine
is more difficult to study than other subjects, they express
optimistic views on their future training. Two reasons can
be suggested:

(1) Students tend to think of the first year
as the least important to their later
career.

(2) Besides being least important, the first
year seems to appear as the most difficult
time in the medical training.

With regard to the first point students were asked:

Which phase of your medical training do you
think will be most important for your later
career?

A high proportion of students, thirty-two per cent, are not
prepared to give a definite answer to this question at the
end of the first year in medical school. But it is evident
that the first year is hardly considered by them to be of

critical importance in the course of medical training.

As Table 1.5 shows, forty-eight per cent of the students tend to regard the last two years of medical school as most important for their future careers while only twelve per cent think of the first year as most important.

We cannot help, here, quoting Becker's illustration of the disillusionment that medical students face on entering medical school:[32]

> In several ways the first year of medical
> school does not live up to their expectation
> that medicine is made up of a great body of
> well established facts that they will be
> taught from the first day on and that these
> facts will be of immediate practical use to
> them as physicians. They are disillusioned
> when they find they will not be near patients
> at all, that the first year will be just like
> another year of college.

It is conceivable that students are rather disappointed with the amount of medical knowledge provided in the first year. The first year medical student thinks that what he has learned in his first year is relatively unimportant.

Students were also asked:

Which phase of your medical training do you
expect to find most difficult?

Answers to this question as summarized in Table 1.6 indicate that one-half of the students expect to find the first two

TABLE 1.5

STUDENTS' VIEW ON THE IMPORTANCE OF EACH YEAR OF
MEDICAL TRAINING FOR THEIR LATER CAREERS.   SPRING

Most Important Years	Percentage of Students
First two years of medical school	12
Last two years of medical school	48
Internship	6
Residency	2
Don't know	32
Total Students	50

years in medical school most difficult; twenty per cent
indicated that the last two years could be most difficult.

As in the previous question summarized in Table 1.6
a substantial minority, twenty-eight per cent, stated that
they "don't know." But fifty per cent think that the first
two years in medical school are going to be the most dif-
ficult and thus give a clue to the circumstances in which
the first year medical students find themselves.

They find themselves poorly equipped to meet a
sudden flood of knowledge which is not considered to be of
prime importance for the subsequent treatment of patients.

TABLE 1.6

STUDENTS' FEELING ABOUT THE DIFFICULTY OF EACH
YEAR OF MEDICAL TRAINING. SPRING

Most Difficult Year	Percentage of Students
First two years of medical school	50
Last two years of medical school	20
Internship	-
Residency	2
Don't know	28
Total Students	50

In short, the medical curriculum of the first year
is characterized as most difficult and unimportant. Students,
however, expect that, as they go through medical school,
their training will be more enjoyable and easier.

FOOTNOTES

1 The concept of adult socialization is set forth by
Merton. See Merton, R. K., Social Theory and Social
Structure, Glencoe, Free Press, 1957, pp. 265-268.

2 Fox, R., A Sociological Calendar of the First Year
of Medical School, Columbia University, Bureau of
Applied Social Research, 1958, p. 6.

3 Simpson, I. H., "Patterns of Socialization into
Professions," Draft of a paper presented at the annual
meeting of the American Sociological Association, 1960.

4 Hughes, E. C., "The Making of a Physician," Human
Organization, XIV, No. 4 (Winter 1955), pp. 21-25.
Reprinted in his Men and Their Work, Glencoe,
Free Press, 1958, pp. 116-130.

5 Deitrick, J. F., "Objectives of Medical Education,"
Journal of Medical Education, XXXIV, No. 3 (March
1950), pp. 205-208.

    So many medical educators who worry about the
decline of the standard of medical culture are
willing to add more factors for the consideration
of selecting applicants.

6 Ibid.

7 Simpson, op. cit., p. 10.

8 Goode, W., "Encroachment, Charlatanism, and the
Emerging Profession," American Sociological Review,
XXV, No. 6 (December 1960), pp. 902-914.

9 Merton, R. K., Bloom, S., and Rogoff, N., "Studies in
the Sociology of Medical Education," Journal of Medical
Education, XXXI, No. 8 (August 1956), pp. 552-565.

10 In fact, these variables should be considered as inter-
vening variables. In our study we are not yet able to
ascertain the relationship between the dependent
variable and the independent variables (group I) with

these variables (due to the lack of data) we will treat them as another kind of independent variables. Henceforth both groups of independent variables will be denoted as Independent variable (I) and Independent variable (II) respectively.

11 Kendall, P. L., "Medical Education as Social Process," Draft of a paper presented at the Annual Meeting of the American Sociological Association, 1960.

12 Gee, H. G., and Glaser, R. J., ed., The Ecology of the Medical Student, Evanston, Association of American Medical Colleges, 1958, p. 49.

13 Ibid.

14 Cooley, C. H., Social Process, New York, 1918, p. 39.

15 Christie, R., and Merton, R. K., "Procedure for the Sociological Study of the Values Climate of Medical School," in Gee and Glaser, op. cit., pp. 125-153.

16 Platou, R. V., Reissman, L., Sledge, S. H., and Malone, D. H., "Medical Students' Attitudes toward Teachers and Patients," Journal of Medical Education, XXXV, No. 9 (September 1960), pp. 857-864.

17 Merton, Social Theory and Social Structure, pp. 421-436.

18 Becker, H. S., and Carper, J., "The Elements of Identification with an Occupation," American Sociological Review, XXI, No. 3 (June 1956), pp. 341-348.

19 Ibid.

20 Role model is different from the reference individual or group in the sense that the latter refers to the person(s) with whom students compare their capacity whereas the former is a person(s) students try to model after.

21 Rosenberg, M., Values and Occupations, Glencoe, Free Press, 1957), p. 2.

22 Merton, R. K., Kendall, P., and Reader, G., The Student Physician, Cambridge, Harvard University Press, 1957.

23 Gee and Glaser, op. cit., pp. 157-163.

24 Ibid., p. 162.

25 Ibid.

26 Blishen, B. R., "The Construction and Use of an
    Occupational Class Scale," The Canadian Journal of
    Economics and Political Science, XXIV, No. 4
    (November 1958), pp. 519-531.

27 Becker, H. S., and Geer, B., "Student Culture in
    Medical School," Harvard Educational Review, XXVIII,
    No. 1 (Winter 1958), pp. 70-80.

28 Fox, R., "Training for Uncertainty," in Merton, Kendall,
    and Reader, op. cit., pp. 207-241.

29 Ibid., p. 208.

30 Fox, A Sociological Calendar of the First Year of
    Medical School, pp. 1-16.

31 Ibid., p. 10.

32 Becker, H. S., and Geer, B., "The Fate of Idealism in
    Medical School," American Sociological Review, XXIII,
    No. 1 (February 1958), pp. 50-56.

CHAPTER II

THE SOCIAL STRUCTURE: THE CHANGE OF VARIABLES

I. Social Relations Among Students:
Cooperation and Competition

Deutsch designated two aspects of groups,
cooperation and competition. He defined these two situ-
ations as follows:

> In a cooperative social situation the goals
> for the individuals in the situations under
> consideration have the following character-
> istics: the goal regions for each of the
> individuals in the situation are defined so
> that a goal region can be entered (to some
> degree) by any given individual if all the
> individuals under consideration can also
> enter their respective goal regions to some
> degree. In a competitive social situation
> the goals for the individuals in the situation
> under consideration have the following char-
> acteristics. The goal regions for each of
> the individuals in the situation are defined
> so that if a goal region is entered by any
> individual the other individuals will, to
> some degree, be unable to reach their
> respective goals in social situations under
> consideration.[1]

He uses the phrase "promotively interdependent goals" to

identify any situation in which the individuals composing

it have their goals interrelated by the characteristic

defined in the former sense. The term "contriently inter-

dependent goals" will be used to identify any situation in the latter sense.

Except for a very few situations which are purely cooperative or competitive, most situations of everyday life involve both cooperative anc competitive elements. Consequently it is possible for individuals to be promotively independent with respect to another goal. Thus defined, two aspects of a group, the first year medical class, will be observed in the same framework. The first year medical class as a peer group, involves two situations: firstly, they are cooperatively interrelated with respect to a common intention (or goal), i.e. becoming physicians, and secondly, they are competitively interrelated with respect to another goal which is established in the class after it becomes a group, that of being highly ranked.

We will discuss these points in some detail. Unlike most of the regular classes in other undergraduate courses, medical students tend to form a group in which all, or nearly all, members have opportunities for interaction with each other. They arrive in medical school with the common intention of becoming physicians, and as soon as they are accepted as medical students they carry a number of "pressing and chronic problems, the most important stemming from the fact that they are continuously presented with an enormous, unlimited amount of material to learn."[2] Medical

school also provides extremely convenient conditions --
intensive interaction and relative isolation from outside
contacts -- for the common solution to the problems which
they must face. These two conditions apparently make for
rapid establishment of a cooperative group. They usually
spend more than eight hours in school every week day, working
and studying together in the class. In addition, they pro-
mote group solidarity on special occasions such as the Medical
Ball, or during activities celebrating the successful com-
pletion of various stages of their medical training.

The students are insulated from contact with others,
both by reason of their heavy schedules and because they find
difficulty in talking to people who are not in the same
group sharing the same difficulties. This intensive inter-
action in an isolated group produces the mutual understandings
and agreements which Becker and Geer called "student culture"
i.e. a set of provisional solutions and guidance for activity.[3]
Becker and Geer noted three basic characteristics of these
common understandings.[4]

One set of understandings specifies goals and
values telling the students that they are in school to
acquire the knowledge and clinical experience one must have
before he can assume the physician's responsibility for the
lives of his patients, a responsibility he intends and expects
to have once he has finished school. He bases his inter-
pretations of the worth of various school activities on the

criterion of how well this function is served in each.

Another set of understandings suggests modes of cooperation designed to meet examinations and other crises, and such recurrent problems as sharing loads of clinical work assigned to groups.

The student's interpretation of specific events and issues tends to be made in categories which are part of the student culture, because these events and issues are new and unfamiliar, and do not fit easily into categories provided by his earlier experiences. These cultural understandings influence his behaviour in implicit ways.

It is not that the student must abide by these informal, hardly conscious, agreements, but rather that they constrain his thinking and perspective almost without his being aware of it. He may have been torn between what he might like to do and what the group norms specify as correct.

Within the radius of this common understanding, the students are involved in the rather rigid competition for academic achievement. This degree of competitiveness is one of the important aspects of student culture which affects the ease with which medical students acquire the technical information they are expected to learn and the speed with which they develop professionally appropriate attitudes.

Returning to our data, we will discuss these two aspects of student relationships, namely cooperation and competition, with regard to the students' perceptions of and attitudes toward them.

A. Cooperation

In order to ascertain the extent of students' cooperation we asked:

To what extent do you think the first year medical students help each other?

As Table 2.1 indicates, four out of five students state they help each other a fair amount both in the fall and in the spring while only two per cent respond negatively. How, then, do they help each other? With regard to cooperative activity among the class we will refer to two concrete types of laboratory work, Anatomy, and Physiology and Biochemistry.

In the Anatomy course, the class is divided into a number of groups each of which consists of six students. Each student freely chooses the group he wishes to join. Members of each group act as a unit in the Anatomy class for the dissection of the body, the use of T.V., and other duties. In these groups which are established arbitrarily on the second day of lectures before any ties can be formed between the students, friendships develop.[5]

TABLE 2.1

STUDENTS' OPINION ON THE EXTENT OF COOPERATION
AMONG THEMSELVES

Extent of Cooperation	Percentage of Students	
	Fall	Spring
Help a great deal	24	12
a fair amount	62	68
only a little	10	16
not at all	0	2
no answer	4	2
Total Students	50	50

Anyone violating the group ties will find himself
in isolation. This isolation is a form of punishment in
that the other members are not willing to help him in any way.

In Physiology as well as in Biochemistry the
students are divided into a number of groups, each of which
consists of two students alphabetically assigned. However
when an experiment requires more than two students, there
will be a coalition of two sets of partners. As an example
of a specific type of cooperation we noticed that after the
experiment is written up by a student of the group it will
be rotated among the group, but it never goes out of the group.

B. Competition

With regard to competition students were asked to
estimate how much competition they anticipated in their
first year in medical school. Table 2.2 shows that "a great
deal" and "a fair amount" of competition were expected by
eight per cent and thirty per cent of the students respec-
tively. At the end of their first year the proportion of
students who found "a great deal" of competition increased
to sixteen per cent and sixty-four per cent stated that they
found "a fair amount". No one reported that there had been
no competition at all. This tendency is quite contrary to
Thielens' finding that as medical students go through
school, they find themselves involved in reduced competition.[6]

Reader also found a considerable variation from
one school to another in response to the perception of
competitiveness among classmates.[7] His study suggests that
one source of this variation is the difference in class size;
that is, with the increasing size there is an increasingly
high level of competition. Table 2.2 shows a distribution
of expectation of competitiveness similar to that of small
schools in Reader's table.[8]

One may assume that in a large class the pro-
bability of achieving distinction, such as being top man
in the class, winning a sought after prize, being elected
to an honour society, and the like is lower for any one

TABLE 2.2

STUDENTS' REPORT OF LEVEL OF COMPETITIVENESS
AMONG THE FIRST YEAR CLASS

Level of Competitiveness	Percentage of Students	
	Fall	Spring
A great deal	8	16
A fair amount	38	64
Only a little	32	16
No competition	16	–
No answer	6	4
Total Students	50	50

Percentage difference statistically significant (χ^2 = 31.02 df = 3, p<.001).

READER'S TABLE

Level of Competitiveness	Percentage of students in three types of school citing competitiveness[2]		
	Small school	Medium school	Large school
A great deal	18	30	36
A fair amount	50	45	45
Only a little	28	24	18
No competition	4	1	1
Total Students	158	604	557

1 Reader, George G., "Development of Professional Attitudes and Capacities," in Gee, H. H., and Glaser, R. J., ed., The Ecology of the Medical Student, Evanston, Association of American Medical Colleges, 1958, p. 167.

2 Three schools in the small group (less than 70 students), eight medium (70 – 90), and four large (more than 90).

student than is the case in smaller classes. Achieving

these distinctions, therefore, involves greater competition.[9]

Students were also asked how they feel about com-
peting with other people, especially when the stakes are so
high. Table 2.3 summarizes students' feelings about com-
petitive situations. At the beginning of school almost
equal proportions, forty per cent, appeared in each of the
two opposed categories, "dislike somewhat" and "enjoy them
somewhat." It is difficult to make a generalization on the
basis of this bimodal type distribution.

In the spring, however, most of the beginning
students are not likely to avoid competition. It is sug-
gested that they tend more often to perceive competition as
being an unavoidable characteristic of medical school which
they must face in order to get through. This tendency is
considered to be an outcome of the socializing process in
the course of which medical students gradually show less
concern with competition and by the end of the year manifest
neutral attitudes toward it, a fact which may indicate
acceptance of the prevailing atmosphere. As Table 2.3 shows
the proportion of the students who reported that they some-
what disliked competition is reduced to eighteen per cent
from thirty-six per cent whereas the proportion of students
with neutral feelings toward competition increased con-
siderably -- from eighteen per cent to thirty-two.

TABLE 2.3

STUDENTS' FEELING ABOUT COMPETITIVE SITUATIONS

	Percentage of Students	
	Fall	Spring
Dislike and avoid	2	2
Dislike somewhat	36	18
Neutral	18	32
Enjoy them somewhat	40	40
Get a kick out of them and seek them out	4	8
Total Students	50	50

Percentage difference statistically significant ($\chi^2 = 24.38$ df = 4, p < .001).

The tendency indicated in Table 2.4 shows that during the year, apparently, they are likely to become involved in competition rather than trying to avoid it.

> To what extent are you concerned about how well you are doing in comparison with the other students in your class, deeply concerned, quite a bit concerned, little concerned or not at all concerned?

This question was an attempt to determine if students regarded a competitive situation as important in assessing their class standing. This table shows, at the beginning of their career,

TABLE 2.4

STUDENTS ACCORDING TO DEGREE OF CONCERN ABOUT
THEIR PROGRESS

	Percentage of Students	
	Fall	Spring
Deeply concerned	12	8
Quite a bit concerned	56	46
Little concerned	32	42
Not at all concerned	-	4
Total Students	50	50

Percentage difference statistically significant ($\chi^2 = 7.4$, df = 3, p < .05).

the proportion of students who were deeply and quite a bit concerned is more than twice as much as the proportion of less concerned students. At the end of the first year the two proportions tend to become almost the same. As Thielens indicated,[10] compared with students in other fields, medical applicants tend to perceive the competitive situation as being unavoidable and more competitive. This tendency is largely based on their greater experience of competitiveness on admission to medical school.

But once accepted as a medical student, competition for selection is replaced by competition for a higher

academic ranking. The latter competition is much milder than the former in the sense that it is not only confined to only medical students themselves but is also not so serious as the one they experienced for entrance.

Thus far we have discussed some aspects of first year medical students as a peer group, namely cooperation and competition among the group, the perception of the competitive situation, their attitude -- like or dislike -- toward it, and their estimation of its importance in their task performance.

II. Reciprocal Relations of Medical Students and Faculty Members

It is assumed that a medical school constitutes an environment in which students are expected to acquire not only the relevant knowledge and skills, but also a set of characteristic attitudes and values.[11]

Since the faculty members in professional schools are largely drawn from the profession toward which the student aspires, it may be expected that faculty members in such schools will play an important role in moulding the values and career decisions of their students. As found by Platou and associates, when the junior and senior students were asked to indicate which persons they felt had contributed most importantly to their training for nine items that had

been developed from their earlier interview materials, the faculty -- among other persons in the school -- was most valued by the juniors for the teaching of general medical principles, as contrasted with teaching more "practical information." For the seniors the faculty was evaluated similarly, but slightly higher than by the juniors.[12]

The influence of the faculty is not all pervasive. While the student may seek advice on important decisions that he has to make, and a model after whom to pattern his behaviour, there are some situations in which it is not so clear what role the faculty will play. Coker Jr. and associates found that the values of medical students appear to be very little influenced by the very faculty members whom they named as having influenced them, and that there are no differences between these students and those who did not name an influential faculty member.[13] On the other hand, there are varying degrees of relationship between the departmental affiliations of influential faculty members and the specialties chosen by those students who name them.

This slight discontinuity of value orientation between faculty and students is further confirmed by Caplovitz.[14] He indicated that only a minority of students about to graduate from medical school accept the same values as those held by the faculty members.

The disparity between the previous assumption and

the above finding needs clarification. In what respects
are faculty members influential or not influential with
respect to students?

The effects upon students of the social environment
constituted by the faculty can be understood clearly if there
are systematic data about the values held by the faculty
members and their relations with students.

Unfortunately we did not distribute our question-
naires to the faculty. It is difficult to make any genera-
lizations on the relationship between the faculties and
students with data obtained from students only.

Our concern, therefore, is confined to asking
students if they are satisfied with the direction given by
the faculty members. This is considered to be an index
showing to what degree the faculty influences the students.

When they began their medical training the students
were asked: "How much contact do you expect to have with
faculty members during your first year of medical school?"
Table 2.5 shows that almost three out of five expected to
have a fair amount of contact with the faculty, fewer than
one out of five expected only a little, while an equal pro-
portion did not know.

In addition to the above question we also asked
them the kind of contact with the faculty they expected to have:

On the whole, do you expect that your contacts
with the medical school faculty during your
first year will be more formal, less formal,
or about the same as your contacts with your
undergraduate professors?

TABLE 2.5

STUDENTS' EXPECTATION REGARDING AMOUNT OF
EXPECTED CONTACT WITH FACULTY, FALL

Amount of Expected Contact	Percentage of Students
A great deal	2
A fair amount	58
Only a little	18
Don't know	18
No answer	4
Total Students	50

Approximately half of the students anticipated
having less formal contact, thirty-six per cent anticipated
the same relationship they held with their professors in
undergraduate study, whereas only twelve per cent indicated
a more formal relationship.

The majority of the students who start their
training in medical school expect to have more informal
contact with the faculty than they had previously. Since
they already anticipate a large amount of medical knowledge

through a variety of sources such as contact with seniors, students, and so on, it seems that they will inevitably have more frequent contacts with faculty members other than in the classroom setting in order to digest effectively what they learn.

Students also think that the faculty will give them enough direction on what to emphasize in their studying. As Table 2.6 shows, seventy-two per cent think that they will be provided with the right amount of direction, and twenty per cent expect too little direction.

TABLE 2.6

STUDENTS' OPINION ON THE AMOUNT OF DIRECTION GIVEN
BY THE MEDICAL FACULTY

Opinions on Given Direction	Percentage of Students	
	Fall	Spring
Too little direction	20	34
About the right amount	72	62
More than enough	–	4
No answer	8	–
Total Students	50	50

Percentage difference statistically significant ($\chi^2 = 8.37$, df = 3, p < .05).

In the spring, after they have lived a year in the medical school, a slight shift occurred in the proportions of each category. The percentage of the students who tend to think that the faculty gives too little direction is increased to thirty-four per cent from ten per cent, while the majority of them, sixty-two per cent, are still likely to say, "Faculty gives about the right amount of direction." However, only a negligible number of students, four per cent, regard the direction given by the faculty as more than enough.

Similar data contained in Table 2.7 for all four years are found in the study carried out by the American Medical Association[15] which showed no considerable difference between two samples with respect to students' opinion of the amount of direction given by the medical faculty.

In short, the majority of the year year medical students expect to have a fair amount of contact which is less formal than the contact they had previously.

With regard to the direction given by the faculty, they tend to think that the faculty gives about the right amount, even though a number of students gradually express the lack of direction.

TABLE 2.7

STUDENTS' OPINION ON THE AMOUNT OF DIRECTION
GIVEN BY THE MEDICAL FACULTY AT U.B.C.
AND IN U.S. MEDICAL SCHOOL

Opinions on Direction Given	Percentage of students	
	U.B.C.[1]	U. S.[2]
Too little	34	39
About the right amount	62	57
More than enough	4	4
No answer	-	1
Total Students	50	1322

1 Data obtained at the end of the first year.

2 Gee, H. M., and Glaser, R. J., ed., The Ecology of the
Medical Student, Evanston, Association of American Colleges,
1957, p. 65.

III. Students and Patients

"The role of the physician" as stated by Parsons
"centers on his responsibility for the welfare of the patient
in the sense of facilitating his recovery from illness to
the best of the physician's ability."[16] He is responsible
for every patient without any discrimination according to
social class, age, sex, and the degree and kinds of sickness.
This ideal has been traditionally maintained.[17] This was
clearly stated in Sir Thomas Watson's The Principles of

<u>Medical Ethics:</u>[18]

> Medicine dispenses its peculiar benefits,
> without stint or scruple, to men of every
> country, and party and rank, and religion,
> and to men of no religion at all.

The relationship between the doctors and patients is always

under the control of this norm. Deviation from it is sub-

ject to disapproval.

However the socially prescribed attitude towards

patients still permits some deviation, since the individual

is not forced to give a consistent response as the only

approved attitude.[19] As also indicated by Martin "a

physician, like anyone else, can be expected to form likes

and dislikes for those with whom he interacts."[20] A

physician would be more likely to appreciate those with whom

he can most easily work, and to avoid patients who make his

role performance more difficult.

Thus Platou and associates point out that the

physician perhaps should hold favourable attitudes towards

all patients, but, within these bounds, he can prefer one

type of patient over another without violating a social or

professional conduct.[21] The medical students are exposed to

the value-environment of the school within which they learn

the correct types of attitudes and behaviour in relation to

the patient. From instructors they may learn that some

patient-oriented attitudes are considered more appropriate

than others, and the students' experience may show how
their attitude affects their ability to work effectively
with patients.

Owing to individual differences in disposition
and ability, the attitudes centering around the patients
permit individual variations among students at the same time
that they provide insight into this aspect of their profes-
sional role. But likes and dislikes for certain types of
patients might limit the choice of specialty. This might
also lead a student to suspect he has an aptitude for a
certain field.

The components of the student-patient relationship
to be discussed are:

(1) Image of the patient -- perception
    of the patient,
(2) Anxiety aroused by contact with the
    patient,
(3) Preference for a particular type of
    patient.

A. The Image of the Patient

In his role-relationship with patients, the medical
student develops not only the image of himself as a doctor,
but also an image of the patients themselves through either
direct or indirect contact with them. By indirect contact

we mean the information about the patients through other media such as lectures, talks with senior students, research and so on.

Each student envisages the patient, but there appears to be a generalized concept of this image among members of the group. In their study of the value climate in medical school Christie and Merton[22] attempted to ascertain the attributes of the image of the patient. It was found that the students largely agreed on their image of the patient as one who is ugly, pitted, narrow, awkward, and an outsider, an image that does not impress one as particularly flattering.

But we do not yet know whether this image of the patient is affected by class differences between the student and the patients. Further research on this is required.

B. Anxiety

Since the interpersonal attitudes involved in the physician-patient relationship are more crucially implicated in the quality of services rendered than in most other professional-client relationships,[23] it leads us to explore the personality and situational factors involved in the student's attempt to learn how to be a "good physician."

Our study, regretfully, does not provide sufficient information on this point. The only possible way

at the moment to explore the development of negative attitudes
of the medical students toward patients is to study other
investigations.

Strecker and his associates[24] found that forty-six
per cent of senior medical students at the University of
Pennsylvania had neurotic handicaps of a major character.
Other studies confirmed this; that of Kohl[25] at Cornell,
Brosin[26] at Chicago, and Wyler[27] at Cincinnati. In a study
of third year medical students at Yale University, Redlich[28]
revealed a high incidence of personality maladjustment and,
in some instances, severe neurotic behaviour of a type which
could hinder their productivity as physicians.

It has been observed that medical students, as a
group, tend to have certain attitudes, value systems and
defenses which do not seem to be consonant with the demands
and gratifications of a service-oriented profession.[29] Thus
the subject of cynicism and negative attitudes toward
patients has made for much discussion. It was hypothesized
that these attitudes are a manifestation of the neurotic
anxiety of the medical student as indicated earlier. Eron
reports that students with cynical attitudes toward patients
rated high on an anxiety scale, that first year medical
students tended to have more humanitarian attitudes and less
anxiety than seniors, and that there was a greater increase
in cynicism and anxiety in medical students than in a

comparable group of law and nursing students.[30]

Robert Stollar and his associates regarded negative attitudes toward patients as a defense reaction against the anxiety involved in taking the doctor's role.[31] Further confirmation was provided by MacCandless and Weinstein.[32] They found a progressive rise in anxiety during a series of conferences on the emotional problems of patients in the "constricted" students i.e. those who showed little concern with the emotional problems of their patients and limited their interest to the treatment of organic factors. Parker pointed out that this account resembles his finding.[33]

> Those who scored high on the F-scale[34]
> for the authoritarianism also had diffuse
> feelings of hostility, tended to idealize
> (but at the same time harbored covert
> resentment against) authority figures,
> were unable to take a psychiatrically
> oriented view of themselves and others,
> were moralistic in their judgments, and
> viewed human relationships in terms of
> hierarchical status positions.

Parker further showed that the personality characteristics and values of medical students had a pronounced relationship with their reaction to patients.[35] It was indicated that the non-authoritarian students were more frequently the recipients of gratification derived through intimate interaction with the patients, and senior staff members.

In summary, the medical students, as they move

through medical school, tend to develop an image of themselves as doctors rather than students, but at the same time display cynical and intolerant attitudes toward patients. This is not because the medical profession attracts and the admission committee selects a higher proportion of individuals with personality maladjustment than other professions, but because the medical curriculum itself tends to unfold these traits. Some factors in the medical curriculum which presumably invoke these effects are: the student's limitation of medical knowledge for full treatment of the patient, exposure to autopsy, competition among students, lack of clear-cut guidance, and examinations.

It was further indicated that each individual's personality characteristics and values had a profound relationship with the negative attitude towards the patients.

C. Preference for Particular Types of Patients

We have discussed the general image the student may have of the patient, which usually is expressed in a negative sense, and the anxiety aroused from contact with the patient. We shall now turn our attention to individual preferences for the various types of patients. As shown below some of the questions pertain to the different kinds of patients and to the situation in which students might be involved positively or negatively with the patient.

> Are there some kinds of sick people to whom
> you felt especially drawn or towards whom
> you feel particularly sympathetic?
>
> Are there some kinds of sick people with
> whom you find yourself reacting negatively?

As Table 2.8 shows there is only a slight change
in the frequency distribution between the students' attitudes
in the fall and in the spring, except in the case of patients
who are suffering from a terminal illness.

Table 2.8 indicates that at the beginning of their
career, the medical students feel particularly sympathetic
towards young people; people who are optimistic about the
illness; and people who are "down and out." Compared with
other types of patients a larger number of students feel
sympathetic towards the above three types, but no one single
category exceeds fifty per cent of the students' response.

Less than ten per cent of the students are drawn
to each of the following types of patients respectively:
people who have confidence in the doctor; those who have
clear-cut physical illness; and articulate people.

We can hardly make any attempt here to say why
students prefer one type of patient to another.

Similarly, in the case of negative reactions
toward the patient, as Table 2.9 indicates, the proportion
of students reacting negatively is less than thirty per cent
for each type of patient. Some twenty-five per cent of the

TABLE 2.8

KINDS OF PATIENTS TO WHOM STUDENTS FEEL ESPECIALLY
DRAWN OR PARTICULARLY SYMPATHETIC

Kinds of Patients	Percentage of Students	
	Fall	Spring
Young people	50	58
People with terminal illness	20	46
People who are "down and out"	26	32
Articulate people	4	4
People who are optimistic about their illness	28	34
People who have clear-cut physical illness	6	8
People who have confidence in the doctor	8	14
Other	22	10

Difference between two proportions (each category)

is not significant at 0.05 level.

students in both fall and spring expressed negative reactions

towards people who make no real effort to get well; towards

those who think they know as much about medicine as the

doctor; and people who feel sorry for themselves. Since they

have had no contacts with patients during the first year in

medical school these positive and negative attitudes expressed

toward the patient are quite unstable. We might assume that
their attitudes toward patients will be changed later when
they have actual contact with them.

TABLE 2.9

KINDS OF PATIENTS TOWARD WHOM STUDENTS
FIND THEMSELVES REACTING NEGATIVELY

Kinds of Patients	Percentage of Students	
	Fall	Spring
Old people	6	6
People who think they know as much as the doctor	28	24
Inarticulate people	2	2
People who have nothing but psychogenetic symptoms	12	4
People who feel sorry for themselves	22	22
People who have physiologically improbable symptoms	12	4
People who make no real effort to get well	30	28
Other	8	6

It might be prudent, therefore, to compare students
who sympathize with more than one type of patient to those
who do not make such a distinction. On each set of alter-
natives some students expressed a sympathy with either type.

TABLE 2.10

EXTENT OF STUDENT PREFERENCE FOR PATIENTS

No. of Preference Expressed	Percentage of Students	
	Fall	Spring
0	30	20
1	18	18
2	20	20
3	20	28
4	10	8
5	2	2
6	--	4
Total Students	50	50

Difference between two proportions (each
category) is not significant

Some students, as Table 2.10 shows, expressed no sympathy
whatsoever, while others make a definite choice on all five.
Data in this table show a positively skewed curve which
suggests the questions differentiate students according to
their sympathetic feelings toward patients. Table 2.11
based on the Table 2.8 and Table 2.9 makes it more apparent
that large proportions of the first year medical students
either adopt a neutral position with regard to the kinds of

patients about which they were asked or else they have not

yet established any attitude. Thus eighty-eight per cent

of the students claim that it makes no difference whether a

patient has a clear cut physical illness or a physiologically

improbable one.

Sixty-six per cent of the students state that it

makes no difference to them if people are "down and out" or

have nothing but psychogenetic symptoms. And fully ninety-

four per cent express neither negative or positive reactions

toward articulate or inarticulate people. We further find

from Table 2.11 that the student who expresses sympathy

toward a certain type of patient does not necessarily show a

negative reaction toward the counter type of patient. For

example, out of twenty-nine students who are particularly

sympathetic toward young people only two hold negative

attitudes toward old people.

With regard to the students' sympathetic attitudes

toward patients we asked the following question:

> What do you think you should do when you
> find yourself positively drawn to a
> patient?

At the beginning of the first year, as noted in Table 2.12,

the proportion of the students who would try to control

these feelings, and regain their sense of objectivity is

almost twice the number who were opposed to changing their

natural feelings -- forty-four per cent responded to the

TABLE 2.11

KINDS OF PATIENTS TOWARD WHOM STUDENTS
ARE SYMPATHETIC AND TOWARD WHOM THEY
REACT NEGATIVELY

Preferred and Unpreferred Patients	Percentage of Students				
	Fall		Spring		
Young people	+	+	−	−[1]	
Old people	+	−	+	−	
Per cent	4	54	2	40	(50)
Articulate	+	+	−	−	
Inarticulate	+	−	+	−	
Per cent	−	2	4	94	(50)
People who are optimistic about their illness	+	+	−	−	
People who feel sorry for themselves	+	−	+	−	
Per cent	10	24	12	54	(50)
People who have confidence in the doctor	+	+	−	−	
People who make no real effort to get well	+	−	+	−	
Per cent	6	8	22	64	(50)
People who are "down and out"	+	+	−	−	
People who have nothing but psychogenetic symptoms	+	−	+	−	
Per cent	2	2	30	66	(50)
People who have clear-cut physical illness	+	+	−	−	
People who have physiologically improbable symptoms	+	−	+	−	
Per cent		8	4	88	(50)

1 Questions asked to the two types of patients read dif-
ferently. For the first category of patients (e.g. young
people) students were asked: "Are there some kinds of sick
people to whom you feel especially drawn or toward whom you
feel particularly sympathetic?" And for the second category

of patients (e.g. old people): "Are there some kinds of sick
people with whom you find yourself reacting negatively?
The combined response to the above two questions should be
studied carefully. For example the response, Young people +,
Old people -, indicates the group of students who are sym-
pathetic to young patients and also react positively, i.e.
give a negative answer to the latter question, to old patients.

---

former feelings whereas twenty-four per cent to the latter.

In the spring, however, the students are nearly equally

divided.

    The number of students in the other categories who

hold the opinion that they would take advantage of these

feelings to try to draw the patient closer to them remains

constant throughout the first year.

    If students had a chance to establish a patient-

doctor relationship during the preclinical sessions, the

stereotyped attitudes toward patients might be revised toward

the end of the first year. This stereotyped idea is that a

doctor treats any patient whatsoever with complete neutralism,

and if any emotional feelings arise, they must be controlled.

    As noted before, medical students may have learned

from the instructors that some patient-oriented attitudes

are considered more appropriate than others, and their

experience in preclinical sessions may have shown how their

attitudes influence their ability to work effectively with

patients. However, the lack of actual contact with patients

does not allow immediate generalization about this shift.

TABLE 2.12

STUDENT OPINION ABOUT SYMPATHETIC
ATTITUDE TOWARD PATIENT

Opinions about the Sympathetic Attitude toward a Patient	Percentage of Students	
	Fall	Spring
I'd try to control these feelings, and regain my sense of objectivity	44	36
I'd take advantage of these feelings to try to draw the patient closer to me	18	18
I wouldn't try to change my feelings at all	24	34
Other	6	4
No answer	8	8
Total Students	50	50

Difference between two proportions (each item)

is not significant

We shall now endeavor to relate three categories
of opinion about sympathetic attitudes toward particular
types of patients according to the number of preferences
already expressed. It should be noted that the students who
did not express sympathy toward any particular type of patient
felt that if these sympathetic feelings ever did arise, they

TABLE 2.13

STUDENTS ACCORDING TO THEIR ATTITUDES TOWARD THE SYMPATHETIC FEELING
RELATED TO NUMBER OF PATIENTS TOWARD WHOM PREFERENCE WAS EXPRESSED

	Attitude towards Sympathetic Feelings			
No. of preference expressed	Try to control these feelings	Take advantage of these feelings	I wouldn't try to change any feeling	Others
	Number of Students			
0	1	2	2	6
1	3	1	5	-
2	5	1	5	-
3	8	2	3	-
4	-	1	2	-
5	-	1	-	-
6	1	1	-	-
Total Students	18	9	17	4 (50)

would either tend to take advantage of them in order to draw the patient closer to them, or would not try to change them at all.[36]

As a student increases the number of categories of patients, up to three, to whom he is particularly sympathetic, the more likely he is to try to control these feelings to maintain objectivity. Since the number of students who expressed sympathy with more than three types is so small, no suggestion can be made.

In summary:

(1) In the first year of medical school without contact with actual patients, neither sympathetic nor negative reaction towards patients is fully developed.

(2) The above suggestion is strengthened by the fact that students failed to express either like or dislike for two types of patients which are opposed in one way or another, for example, people who have clear-cut physical illness versus people who have physiologically improbable symptoms.

(3) As the student progresses through medical school a stereotyped perception of doctor-patient relationship, i.e. all-patient-oriented, gradually gives way to the preference-oriented attitude.

(4) It was suggested that the greater the number of the patients toward whom particular preferences were expressed, the greater the desire to control these biases.

FOOTNOTES

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5 The significance of friendship for socialization is to be discussed by Nicolls, W. II, in his research in progress.

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31 Stollar, R. J., and Geertsma, R. H., "Measurement of
    Medical Students' Acceptance of Emotionally Ill
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32 MacCandless, F. D., and Weinstein, M., "The Relation
    of Student Anxiety to Concept of Role in Medical Care,"
    Journal of Medical Education, XXXVIII, No. 2 (February
    1958), pp. 144-151.

33 Ibid.

34 Adorno, T. W., and Associates, The Authoritarian
    Personality, New York, Harper and Brothers, 1950.

35 Parker, op. cit., p. 855.

36 Seemingly it is a self-contradiction that the students
    who did not express any systematic feelings tend to
    utilize these feelings for treatment of patients. But
    it is possible that to have the positive or negative
    attitude toward patients is one thing, and the attitudes
    toward the norm about the doctor-patient relationship
    is another.

CHAPTER III

STUDENTS

A. THE CHANGE OF THE VARIABLES

I. Self-Evaluation

Self-evaluation refers to the individual's sub-
jective assessment of his own ability for the task with
which he identifies himself. In this way students attempt
to ascertain whether their abilities are adequate, or
inadequate for becoming the kind of physicians they would
like to be.

Frequently there is no accurate, objective basis
for evaluating one's abilities even though regular exami-
nations result in a rank order which may or may not be
identical to one's subjective scale. To the extent that
such an objective basis of evaluation is lacking, the
individual may evaluate his ability by comparing himself
with the presumed abilities of others in the class of which
he is a member.[1]

A fairly accurate self-evaluation can be made,
providing one's capacities are similar to those of the
person with whom comparison is being made. But the

standards used by students in judging their abilities in
their future professional roles are not always mutually
compatible.[2] Furthermore, students of the same degree of
ability in certain respects may rate themselves quite
differently, depending upon the choice of reference
individuals.

It would seem to be important to know the con-
sequences of students' self-evaluation. Some students, for
instance, who have considerable potential ability may never-
theless judge themselves as lacking in needed competence,
which could possibly hinder their chances of attaining the
desired goal. Similarly, other students may judge their
abilities to be greater than they actually are, with the
same results.

But invariably confidence in one's capacity for
realistic self-evaluation has functional consequences for
performing a task. Martin indicates that the greater the
students' self-confidence, the greater the tendency to see
themselves as physicians rather than as students only. A
high degree of confidence in one's positive self-evaluation
increases the likelihood of making a strong identification
with the role.[3] Another possibility of this self-confidence,
as suggested by Festinger and associates, is that the
greater the confidence the greater the attraction of members
to a group and vice versa.[4]

Consequently, it seems important to discover how students arrive at their self-evaluation, the standards they use, the amount of confidence they possess and the implications of this evaluation for their professional development.

(i) Realistic Appraisal of Own Ability

Table 5.1 shows how well students with different degrees of realistic appraisal are doing in their courses. We anticipated that a high proportion of the students in the fall would classify themselves in the "don't know" category, because they would have no basis on which to evaluate themselves at that time. The table appears to confirm this, in that thirty-eight per cent so classified themselves. On the other hand, a nearly equal percentage, thirty-four per cent, classified themselves in the "about average" category. It appears that these two responses indicate a certain caution in the student's self-assessment.

When students were asked about their initial feeling as to how well they were doing, sixty-four per cent were "not sure." It is not surprising to note that none of them is "completely sure" about how well he is doing at the beginning of the school course.

Spring answers indicate significant differences in the degree of self-confidence and in the degree of certainty in such an assessment. Two-thirds of the students

who in the fall were not able to make the assessment of
their own ability could classify themselves into definite
categories. It is noted in Table 3.1 in the spring answers
that the proportion of students classifying themselves
"somewhat better than average" is more than twice as much
as the proportion of those classifying themselves "below
average" which is twelve per cent. These proportions are to
a large extent based on the greater confidence derived from
a year's experience in medical school.

TABLE 3.1

DEGREE OF SELF-EVALUATION OF STUDENTS

Degree of Evaluation	Percentage of Students	
	Fall	Spring
Considerably better than average	-	2
Somewhat better than average	22	30
About average	34	56
Below average	2	12
Don't know	38	-
No answer	4	-
Total Students	50	50

In response to the question regarding certainty about self-evaluation, Table 3.2 shows that nearly three out of four students state that they are quite sure about their self-confidence. However, eighteen per cent still were not sure of their judgment about how well they are doing.

TABLE 3.2

DEGREE OF CERTAINTY ABOUT SELF-EVALUATION

Degree of Certainty	Percentage of Students	
	Fall	Spring
Completely sure	-	8
Quite sure	28	74
Not sure	64	18
No answer	8	-
Total Students	50	50

We further observed the relationship between self-confidence and certainty about it. That is, are those students with greater self-confidence more sure about their appraisal than those who evaluate themselves as below average? As Table 3.3 suggests, the reverse relationship occurs. The notable aspects of this distribution are that fifty per cent of the students with lower self-confidence

express a high degree of certainty about their judgment of their abilities, whereas none of the students who think themselves doing considerably or somewhat better than average are completely sure about their judgment.[5]

TABLE 3.3

RELATION BETWEEN THE DEGREE OF SELF-CONFIDENCE
AND ITS CERTAINTY

Degree of Certainty	Degree of Confidence		
	Better than average	About average	Below average
	Percentage of Students		
Completely sure	–	4	50
Quite sure	87	75	33
Not sure	13	21	17
Total Students	16	28	6 (50)

(ii) Self-Evaluation and Rank Order in the Class

Self-evaluation, as was defined above, refers to the way in which an individual judges himself. Since the tasks performed during the first year in medical school are rated by examination and appear in the class standing, the following question is appropriate: To what extent do the

objective ratings of examinations and the self-evaluation of a student's performance agree? No positive relationship was evident between the degree of self-confidence and the class standing. Table 3.4 indicates that among students with second class standing, sixty-three per cent give a moderate estimate of their ability, while seventy-five per cent of those students with third class standing made the same assessment. On the other hand, the percentage of second class students who assess themselves below average is over twice that of the third class students who assess themselves in this manner.

TABLE 3.4

DEGREE OF SELF-EVALUATION ACCORDING
TO CLASS STANDING. SPRING

	Class Standing			
	Percentage of Students			
Degree of Self-Evaluation	I	II	III	
Better than average	61	19	17	
About average	39	63	75	
Below average	-	19	8	
Total Students	18	16	12	(46)*

* 2: no examination
  2: unidentifiable

One thing to be noted, however, is that the majority of the first class students have greater confidence in their ability than either of the other classes of students, and none of them shows an inverse association between self-evaluation and class standing.

As Martin indicates,[6] self-evaluations rarely correspond closely to the judgment of the faculty as embodied in the grades. Two reasons for this disparity are also suggested by him: (1) The two measures, self-confidence and grades, may not be drawing on the same dimension of performance, either because of differences in the skills taken into account or differences in the criteria used in measuring these skills. (2) Standards of excellence may differ among students and these may influence the manner in which they evaluate their performance.

Besides the above two possible explanations another possibility can be assumed. That is, as noted in Table 3.4, general agreement on excellence is reached only for a minority who enjoy the top rank in the class when no objective criteria are available with which to compare self-confidence. Incidentally, Martin's second point may not be true since their judgment is being carried out in class. It is further assumed that students who have relatively low average grades do not consider that the gap between top ranking students and about average students as very different

from that between top ranking students and themselves.

(iii) Reference Point of Self-Evaluation

As we stated above, the students with the same degree of ability with regard to their course work rate themselves differently, depending upon their choice of reference groups, that is, whether they compare themselves with classmates, faculty members, practising physicians, or interns and residents. Therefore, we asked the students to rank three factors according to their importance in deciding how well they were doing as shown in Table 3.5. These elements were: comments of your fellow students, information given by the faculty, and the student's own personal evaluation. No change was indicated in average rank order between the fall and the spring terms. As this Table indicates, the student's own personal evaluation was the element most often thought to be of first importance, and only a minority of the students -- two per cent in the fall and eight per cent in the spring -- did not regard it as the first or second consideration.[7] Information given by the faculty was ranked second, and comments of fellow students came last. In the spring, two elements, holding the same rank, showed considerable change with respect to their importance of ability in the evaluation. The students ranked information given by the faculty more highly in the spring than in the fall, while none of the students regarded comments of fellow students as the first consideration.

TABLE 3.5

STUDENTS' DEPENDENCE ON VARIOUS EVALUATIONS

Kinds of Standards by Evaluation		Degree of Importance				
		1 i.e. most important	2	3	No response	Average rank
Number of Students						
Comments of fellow students	Fall	6	16	23	5	2.46
	Spring	–	13	37	–	2.74
Information given by the faculty	Fall	16	8	21	5	2.11
	Spring	22	19	9	–	1.74
Own personal self-evaluation	Fall	23	21	1	5	1.51
	Spring	28	18	4	–	1.52

Our data do not show clearly who chooses what reference point for deciding how well one is doing. But we can infer that the first year medical students do not depend solely on information given by the faculty. Nor do they take the comments of fellow students very much into consideration in this respect.

Similar results for medical students of all years in the United States have been reported.[8] As the Table 3.6 shows, fifty-six per cent of them stated that personal evaluation is the most important factor in determining how well they are doing, whereas thirty-three per cent choose information by the faculty as the most important factor. Comments

of fellow students are considered as of foremost importance
by only five per cent.

TABLE 3.6

STUDENTS' DEPENDENCE ON VARIOUS EVALUATION IN U.B.C. AND U.S. MEDICAL SCHOOLS

Kinds of Standards of Evaluation	U. S. Students in First Four Years	U.B.C. First Year Students*
	Percentage of Students	
Comments of fellow students	5	-
Information given by faculty	33	44
Personal self-evaluation	55	56
No response	7	-
Total Students	1322	50

* These percentages were taken from Table 3.5 - the row "most important." (Spring)

We then tried to ascertain the relationship between
the degree of self-confidence and the most important factors
for students' assessment of their own ability. As Table 3.7
shows, there is no obvious positive relationship between
these factors. However, it appears that those students who
evaluate themselves above average are more likely to think
of information by faculty as the most important factor in

their judgment, whereas the reverse tendency is shown for
the students with moderate confidence in their ability.

TABLE 3.7

CORRELATION BETWEEN EVALUATION AND THE STANDARD
OF EVALUATION, SPRING

Kinds of Standards of Evaluation	Degree of Confidence		
	Percentage of Students		
	Better than average	About average	Below average
Information by faculty	57	33	50
Own personal self-evaluation	43	67	50
Total Students	17	27	6 (50)

For the students with lower confidence, these two
factors did not make any difference in making their assess-
ment. An equal proportion is shown to rely both on informa-
tion by faculty members and their own self-evaluation. This
relationship between self-evaluation and actual grade in the
class is further specified according to the most important
factor chosen for the self-evaluation in Table 3.8

If we divide the first year medical students into
two groups, those who think the information given by faculty

is most important and those for whom personal evaluation is
most important, the former are more likely to evaluate
themselves more highly than the latter.

The first trichotomized group, Class I, placed a
higher premium on the information by faculty in their self-
evaluation while the rest relied on their own personal
evaluation.

TABLE 3.8

RANK ORDER, SELF-EVALUATION, AND THE STANDARD
OF EVALUATION. SPRING

		Degree of Self-Evaluation			
		Percentage of Students			
Rank order	Standard of evaluation	Better than average	About average	Below average	Total students
I	1. Information by faculty	67	33	–	12
	2. Personal self-evaluation	50	50	–	6
II	1. Information by faculty	25	50	25	4
	2. Personal self-evaluation	16	75	9	12
III	1. Information by faculty	20	80	–	5
	2. Personal self-evaluation	15	70	15	7
Total Students	1. Information by faculty	10	10	1	21
	2. Personal self-evaluation	6	17	2	25

II. Motivation

Our next variable, motivation, as Dubin defines
it, refers to the complex of forces starting and keeping
a person at work in an organization.[9] To put it more
generally, motivation starts and maintains activity along a
prescribed line. Motivation is something that makes a
person act, and keeps him in the course of the action already
initiated. Furthermore, motivation is part of an activity
at work. As Dubin further states, "this motivation in the
organization is continuous."[10] Persons composing the
organization, once they become part of it, fall into a
pattern of motivation, initiating and sustaining their work
in the organization. This motivation insures a line between
the goals of the organization and the goals of its individual
members and work groups.

The concern, in our study, is not only with the
reasons for a vocation being chosen, but also with the reasons
for the choice, once made, being maintained. After all,
vocations are institutions with which people identify them-
selves, and in which they invest their effort and time.

A number of studies have been undertaken in order
to ascertain the motivations for entrance into medical school,
but very little is known about why students remain in this
field. Both types of motivation are of equal importance
for understanding socialization of the medical student.

Let us first discuss the motives for entering medicine as a future career. To discover reasons why anyone chooses a particular profession is quite difficult. As More notes,[11] a thorough explanation would require an intensive exploration of each individual's life history, to find not only the positive forces behind his choice, but also the reasons why each potential alternative was not selected.

In most studies using a large sample of entrants such detailed analyses were not possible. In fact, this explanation for individual choice is not the direct concern of sociologists.

The factors which students take into consideration when making their choice has been approached in several ways:

(1) Biographical method. Brody[12] has done a content analysis of several known physicians' autobiographies in which they stated the reasons for entering medicine. These are: their conception of medicine as a special calling; their basic interest in general science; the influence of others -- particularly father, mother, friends, teachers, and so on; medicine as a last resort after a process of eliminating other attractive but unpromising possibilities; sheer impulse; a crusading desire (especially for women); and the conscious sense of dedication.

A cursory examination of these factors indicates

that they do not all belong to the same frame of reference.

(2) The direct approach. Another line of approach is to ask students simply to state the reasons for their choice of medicine. Using this approach Cartwright obtained the following results.[13]

> The great majority, four-fifths, of our sample, mentioned the interest and satisfaction they expected to derive from their work as the main reason for their choice, and the only other reason given by any appreciable numbers was the opportunities available in their chosen field or the lack of opportunities in other fields. Nearly one third mentioned this.

This kind of approach, however, can hardly avoid Farnsworth's attack:[14]

> Why did they want to go into medicine? They have all been asked this question dozens of times. Most of them do not know. Many of them have developed rational answers to satisfy those who ask the question. Those who feel comfortable in what they are doing usually come up with a combination of traits such as that of wanting to be of help to other people, a desire to understand themselves better and a native interest and talent for science in a broad sense. A very considerable proportion, about a fourth, have physicians in the family, usually the father, and hence have to identify with them.

In fact, what Cartwright found appears to be less inclusive than what Farnsworth expected.

(3) The structured method. A student cannot be considered to have chosen a career in medicine if he has not been encouraged to some degree to deliberate upon the

respective challenges and rewards of other pursuits.[15]
Students are not capable at any given time of providing the
exact reasons for entering medicine. The next line of
approach, therefore, is to ask students to choose a number
of factors which are considered to be the main determinants
in the choice of their career.

Many studies have tried to ascertain the reasons
for entering medicine by having the students choose a factor(s)
from the list supplied by the investigator.

Table 3.9 summarizes the heterogeneous elements
which were taken into consideration by the authors of books
and articles dealing with this matter. But as we note from
the table, these factors were used without any distinction
between internal factors, such as internal dispositions, and
external factors, such as the influence of other people or
circumstances. Kornhauser and Lazarsfeld have emphasized
the importance of this distinction as follows:[16]

> One can proceed in his analysis of any bit
> of action by analysing those motives and
> mechanisms that appear significant, and also
> by studying the outside conditions which
> appear most clearly related to those inner
> dispositions. Explanations are found by
> working back and forth between individual
> disposition and external influences. The
> behavior of the moment is always governed
> by both.

TABLE 3.9

ELEMENTS IN MOTIVATIONS

	Scantlebury	Schonfield	Cahalan	Ham	Cartwright
Finance finally available	x				
Association with person, other than father, in medicine	x	x			
Own ability in science	x	x	x		x
Father practicing medicine	x				
Work experiences related to medicine	x				
Parental pressure	x	x			
Early interest	x	x			
Need of making decision	x				
Influence of instructors	x				
Reading of medical literature	x				
Prestige		x		x	
Promise of economic income		x		x	x
Particular social demand		x		x	
Personal interest, values, and motives	x	x			x
Unusual early restrictions or handicap		x			
Autonomy (being my own boss)			x		
Humanitarian value (to help others)				x	
Relative opportunities in the different branches of medicine					x
Professional satisfaction					x
Desire to make contribution				x	
Desire to have opportunity for self expression				x	
Desire to acquire self-understanding				x	

We shall, therefore, try to approach this problem first by separating internal from external factors and then we shall seek to link the two together.

A value is defined as a desideratum, i.e. anything desired or chosen by someone sometime,[17] or things in which people are interested -- things they want, desire to be or become, feel as obligatory, worship, enjoy.[18]

When an individual chooses an occupation, he thinks there is something "good" about it, and this conception of "good" is part of an internalized mental structure which establishes priorities regarding what he wants out of life: to ask what an individual wants out of his work is, to a large extent, to ask what he wants out of his life. It is, therefore, indispensable to an adequate understanding of the occupational decision process to consider what people want out of life, for this is the essential criterion by which choices are made.[19]

The considerations affecting the choice of an occupation are not the same as those associated with remaining in it once the choice has been made. A change in attitude toward occupational values is likely to occur when an individual begins to internalize the values of occupational incumbents.

(i) Motivations for Entering and Remaining in Medical School

In the light of the above considerations we shall outline some values apparently related to a medical career and ascertain to what degree they attract students entering and remaining in it. Those values are classified into four categories: "Poeple-oriented", "Extrinsic-reward-oriented," "Self-expression-oriented," and "Autonomy-oriented."[20]

(1) "Extrinsic-reward-oriented" value
Positive responses to either "The fact that medicine is a highly respected profession" or "Being sure of earning a good income" are indications of an "extrinsic-reward-oriented" value complex. Respondents selecting these values tend to view work in instrumental terms. Doctors as a group have higher social standing in the community. Blishen has shown that the social status of the physicians is the highest only next to judges and dentists in Canada.[21] The physician generally enjoys a good income as well as high prestige. He is the most highly rewarded professional man.[22]

There is no simple linear relationship between the social desirability of an occupation and its income level. It would appear, however, that when individuals are essentially uninformed as to the nature of the work and responsibilities of various jobs, their preferences may be heavily weighted by the supposition about anticipated income.[23]

(2) "People-oriented" value

Positive responses to either "Being able to help other people" or "Being able to deal directly with people" are indications of a "people-oriented" value. Respondents selecting these values tend to view work largely as an opportunity to obtain gratification from interpersonal relations.

(3) "Self-expression-oriented" value

Positive responses to either "The challenging and stimulating nature of the work" or "Doing work involving scientific method and research" are indications of a "self-expression-oriented" value. Respondents selecting these values tend to view work chiefly as an end in itself -- as an opportunity for expressing their talents and creative potentialities.

(4) "Autonomy-oriented" value

A positive response to "Being my own boss" is an indication of an "autonomy-oriented" value. Respondents selecting this value tend to view work more likely as an opportunity for obtaining individuality for own action.

As a profession, medicine permits great independence. As with most other professions, regulations of the physician's conduct is minimal, subject only to legal licensing and jurisdiction of his professional peers.[24] To a considerable extent, the physician can establish his own fees and the hours and conditions of his work. In short, the notable

aspect of a medical career among professions is to get rid

of the constraint of other persons, to avoid or escape from

domination, and to be unattached and independent.[25]

Together, these features of medicine based on the

four categories of an occupational value, provide an initial

basis for analyzing some attitudes for both entering and

remaining in medical school.

With regard to the above factors, students were

asked:

> What things do you think you will like
> best about being a doctor? (Choose as
> many as you like.)

This question was asked when students first entered

medical school, and at the end of the term. By correlating

the first questionnaire with the second questionnaire, we

obtain some indication of the relation between factors

affecting entrance into medical school, and factors affecting

stay in medical school.

Table 3.10 summarizes responses to the above

question. As a motive for choosing the medical profession

as a career the idea of "being able to help other people"

is most often stated -- by eighty per cent of the students

under study. "The challenging and stimulating nature of the

work" and "being able to deal directly with people" were

responded to by equal proportions -- sixty-eight per cent.

To a large extent students are more likely to choose a "People-oriented" value as a reason for coming to medical school.

TABLE 3.10

STUDENTS' MOTIVES FOR ENTERING AND
REMAINING IN MEDICINE*

	Percentage of Students			
	Fall		Spring	
	checked	unchecked	checked	unchecked
Being able to help other people	80	20	80	20
The challenging and stimulating nature of the work	68	32	76	24
Being able to deal directly with people	68	32	74	26
Being my own boss	34	66	46	54
The fact that medicine is a highly respected proposition	32	68		
Having interesting and intelligent people for colleagues	32	68	56	44
Doing work involving scientific method and research	26	74	36	64
Being sure of my good income	26	74	26	76

* Percentage changes between Fall and Spring are not significant at .05 level.

It is notable that only a third of the students chose autonomy -- thirty-four per cent, prestige -- thirty-two per cent, or good income -- twenty-six per cent.

The tendency which emerged in the fall remained relatively unchanged in the spring.

Throughout the first year students tend to emphasize "People-oriented" and "Self-expression-oriented" values more than "Extrinsic-reward-oriented" or "Autonomy-oriented" values.

(ii) Value Consistency

It is possible to observe whether there is a value inconsistency between the fall and spring. For example, Table 3.11 shows there were three students who indicated the "people-oriented" value in the fall but not in the spring and for one student the situation was reversed. In general these four students were not psychologically consistent in their value orientation, and constituted eight per cent of the panel members. At most, thirty-two per cent of the students showed a similar inconsistency in the "self-expression-oriented" value. It is interesting to note that the inconsistency of value-orientation in the first years occurs more frequently with "self-expressed-orientation" and "Autonomy" than with the other two categories. However, the difference

TABLE 3.11

INCONSISTENCY OF VALUE-ORIENTATION DURING
FALL AND SPRING

(1) "People-oriented" value

Spring

		+	−	
Fall	+	44	3	47
	−	1	2	3
		45	5	50

+ : checked
− : unchecked

Difference between the proportion of panel members is not significant at .05 level.

(2) "Self-expression-oriented" value

Spring

		+	−	
Fall	+	31	11	42
	−	5	3	8
		36	14	50

Difference between the proportion of panel members is not significant at .05 level.

(3) "Reward-oriented" value

Spring

		+	−	
Fall	+	17	6	23
	−	2	25	27
		19	31	50

Difference between the proportion of panel members is not significant at .05 level.

TABLE 3.11-continued

---

(4) "Autonomy-oriented"

Spring

		+		−	
Fall	+ 15		10	25
	− 2		23	25
	17		33	50

Difference between the proportion of panel members is not significant.

---

between the two proportions of the students whose values changed during the year is not statistically significant.

(iii) Multiplicity of Motives

It is commonly said that people carry out acts for more than one reason.[26] It is, therefore, of interest to arrange Table 3.12 according to the number of categories selected. The results are recorded in Table 3.12.

Both on entrance into medical school and at the end of a year in medical school. more than eighty per cent of the students held at least two assigned categories of values. In the spring, as the table indicates, students were more likely to find more than one category of values. Then only four per cent of the students checked any single category whereas in the fall sixteen per cent of

TABLE 3.12

STUDENTS ACCORDING TO THE NUMBERS OF CATEGORIES
OF VALUE SELECTED

No. of categories by value	Percentage of Students		Accumulated Percentage	
	Fall	Spring	Fall	Spring
1	16	4	100	100
2	40	40	84	86
3	28	28	44	56
4	6	18	6	18
Total Students	50	50		

Proportional differences are statistically significant

(X^2 = 13.2, df = 3, p<.01).

students indicated the same intention. The proportion of
students who checked four categories in the fall increased
from six per cent to eighteen per cent in the spring. It can
be assumed, therefore, that choice of occupation and remaining
in it is not based on any single reason, and as the students
progress through medical school they tend to internalize
more than one set of values.

III. Identification: Professional Self-Image

(i) Professional Self-Image

One of the most compelling changes in the development of an adult into a professional role is found in the growth of a professional personality.[27]

It is almost inconceivable that a student will think of himself as anything but a student during the early stages of his medical training.[28] It is, of course, evident that students typically think of themselves primarily as students at the beginning of their medical training, and come progressively to think of themselves as doctors as they advance through medical school.

In her study of the development of the professional self-image of medical students,[29] Huntington asked students whether they tended to think of themselves primarily as doctors rather than as students in their most recent contacts with patients. She found that a substantial minority of students -- approximately thirty per cent -- in the first two years of training reported that they felt more like doctors, and that by the end of third year, fifty-nine per cent indicated that they felt more like doctors, and just prior to graduation, this proportion had increased to eighty-three per cent.

In the light of these considerations we tried to

ascertain how many of our first year students thought of
themselves as doctors. Students were asked:

When do you expect that you will first
come to think of yourself as a doctor?

As Table 3.13 indicates, only two per cent, that is one
student, in the fall stated that he would expect to think
of himself as a doctor during the first year, while a
majority, sixty-eight per cent, expected to have the
professional self-image after graduation of medical school.
When students were asked this question again after one
year's experience in medical school their expectations did
not seem to change. No student thought of himself as a
doctor during the first year. Whereas a majority of students,
sixty-four per cent, did not expect to assume the profes-
sional image during medical school, only four per cent
expected to have it in the second year.

Huntington's study, mentioned above, presents a
good contrast to the present one as revealed in Table 3.14.[30]

There is a considerable difference between two
groups of first year medical students with respect to the
professional image. At the end of first year, thirty-one
per cent of the students at Western Reserve University
School of Medicine stated that they thought of themselves
"primarily as doctors" in dealings with patients, while not
one of the U.B.C. students had this self-image. This

TABLE 3.13

WHEN STUDENTS EXPECT TO THINK
OF THEMSELVES AS DOCTORS

	Fall	Spring
During first year	2	–
During second year	2	4
During third year	8	4
During fourth year	12	22
During internship	56	48
During residency	12	16
Haven't given it any thought	8	6
Total Students	50	50
First two years	4	4
Last two years	20	26
After graduation	68	64
Haven't given it any thought	8	6
Total Students	50	50

Percentage difference between the fall and spring is
not significant at .05 level.

TABLE 3.14

SELF-IMAGE AS A DOCTOR ACCORDING TO U.B.C. SAMPLE
IN MEDICAL SCHOOL AND OTHERS

	Percentage of Students	
	U.B.C.[1]	Others[2]
First year	-	31
Second year	4	30
Third year	8	59
Fourth year	30	83

1 Accumulated frequencies are used.

2 Western Reserve University School of Medicine.
University of Pennsylvania School of Medicine.   Cornell
University - Medical College.

difference between the two first year groups as to profes-
sional image is, we presume, mainly due to the fact that
the U.B.C. students had no chance to have contacts with
patients while the others did to some extent.

Self-images are formed through social interaction
when people tend to live up to the expectations others have
of them.   Students develop self-images as doctors while they
are in contact with persons who regard themselves as doctors.
As one student remarked:

> Except for a few occasions of visiting
> hospitals we never felt ourselves as
> doctors in our first year. We were
> mostly associated with the milieu of
> the campus. Furthermore we had never
> been treated as doctors by the faculty.

Even those students who are in contact with
patients have different self-images according to the type of
relationship in which they find themselves. As Huntington
further reports,[31] twelve per cent of the above mentioned
first year students at Western Reserve University School of
Medicine said that they thought of themselves as doctors in
their relationship with nurses: three per cent held a
professional self-image vis-a-vis their classmates; and only
two per cent viewed themselves as doctors in their recent
meetings with faculty members.

(ii) Identification

The student's image of himself associated with a
professional role is referred to as "identification."
Identification with significant others motivates an individual
to internalize the values and goals associated with the role
to which he aspires.[32] Identification also has consequences
for institutions,[33] in the sense that the more individuals
there are committed to the occupational identity the greater
the cohesion of the institution.

George H. Mead[34] and Jean Piaget[35] show how the
child's acquisition of a self-identification with the roles

occurs as a sequence of orchestrated phases, each phase of the total process building on what has gone before. Thus the product is a socialized adult.

Simpson, in her study of student nurses, indicates that a sequential development of this kind can also be seen in the process of adult socialization into, and passage through training institutions. She states:[36]

> ... socialization of a person into a
> profession takes place in three analyti-
> cally distinct phases, in each of which
> some or all of the component aspects
> of cultural content and self identifi-
> cations are in process of formation:
> (i) Transition to task orientation
> (ii) Attachment to significant others in
> the work milieu. (iii) Internalization
> of professional values.

As the student moves through medical school, he tends to develop an image of himself as a doctor rather than merely as a student. A similar study was done earlier by Becker.[37] His interviews with graduate students in physiology, philosophy, and mechanical engineering indicate that changes in social participation in the course of graduate work lead to the acquisition of specific kinds of occupational identities. Such participation affects identification through the operation of the social-psychological mechanisms of development of interest in pro-blems, and pride in skills, acquisition of ideologies, and investment,[38] the internalization of motives,[39] and sponsorship.[40]

What then, are the elements of a profession with which individuals identify? Individuals, as Foote and Strauss note, identify themselves in terms of the names and categories current in the groups in which they participate.[41]

Becker further breaks down identification into its components. He indicates[42] how those mechanisms mentioned above, produce work identification in four major elements; attachment to occupational title, task commitment, and commitment to particular organizations or institutional positions, and significance for one's position in the larger society.

This study lacks data concerning the elements of professional identification so that further analysis of the specification of students' identification cannot be attempted.

IV. The Image of the Physician

The physician is a man of many roles and in each of these he creates a different image of himself. To his patients, he may appear as a wise, skillful, considerate individual who heals them when they are sick, delivers their children, offers them good counsel in terms of emotional stress, and is an extremely patient creditor.[43] To his colleagues he may appear as an intelligent co-worker, an ingenious researcher, an able consultant, and a good teacher.

One of the physician's roles that is extremely important, from the point of view of medical education, is that of role model, or as Merton puts it, as a reference individual for future physicians. The term refers to a person with whom the student tries to identify himself and whose behaviour and values he will seek to approximate in his several roles. This image may be a noted figure in the profession, a practitioner known personally or one known only by repute,[44] or an idealized portrait abstracted from various characteristics of physicians the student happens to have come across.

As Schumacher said,[45] "to better understand problems of recruitment, selection, education, and guidance of medical students, it is necessary to learn what their perception of the 'physician' is and what kinds of traits or social behaviour they found desirable or undesirable in members of the medical profession."

A few attempts have been made to study the medical student's image of the physician. The method of one such investigation consisted of having students report on the attributes of people they valued highly: the attributes of the prized person were taken to reflect the values held by the student. Along this line Christie and Merton asked each student of one junior and three senior classes at three medical schools to scale attributes such as "sociability," "volatility," "dominance," and personal appearance in the

physician.[46] The composite picture of the ideal physician emerging from these multiple scales is one of high extroversion, slight emotionality, thorough dominance, and an amiable and clear-cut appearance. This is in remarkable contrast to the student's image of patients as previously stated (pp. 59). "The attributes assigned to the ideal physician," Christie and Merton concluded, "furnish approximate indicators of values by indicating what students assume a good physician should be like."[47]

Another way of approaching this problem is to provide students with a list of conceivable features and ask them directly to indicate desirable features of the ideal physician.

Using the latter approach Schumacher[48] studied how applicants to medical schools view the "physician" in terms of certain personal characteristics, and compared this view with the measured personality traits of medical school applicants and medical students. He shows that, in general, the most desirable features of the physician's role to which the medical applicants respond most are: to want to do one's best and accomplish difficult tasks; to help others and have them confide in him about personal problems; to put in long hours of work without distraction; and to keep at a job until it is finished; to analyze his own motives and the behaviour of others; and to work in an orderly fashion.

As Schumacher noted, it is interesting that applicants place a slightly higher emphasis on the accomplishment of difficult tasks or helping others.[49] These characteristics seem to fit the common stereotype of the above, self-sacrificing, dedicated physician, and it does not seem surprising that they all rated high by individuals attempting to enter the medical profession.

(i) Important Characteristics of a Good Physician

In our study first year medical students were asked, in both fall and spring, to rate in order of importance the following four groups of characteristics considered essential in making a good physician. Each group involves a number of traits:

First are the (inherent) personal characteristics such as good appearance, warm and pleasing personality, integrity, and ability to get along with people.

In the second group are factors associated with attachment to the job, which involves, for example, dedication to the profession and getting real enjoyment out of medicine.

The third group is concerned with ability to undertake research which requires such traits as high intelligence, recognition of own limitations, ability to think in an organized way, scientific curiosity, laboratory skills.

Fourthly, only one aspect of the "ability to organize" the skillful management of time, was examined.

Table 3.15 shows the mean trait scores obtained by our students, their rank order. The traits are also classified into three grades in terms of score order -- high, middle and low.

The most highly estimated traits were, as Table 3.15 indicates, integrity, ability to think in an organized way, and the ability to get along with people. The difference of the mean trait score between each pair of these three is negligible.

At the lower end of the scale, we find the following characteristics: good appearance, skillful management of time, high intelligence, scientific curiosity, and research ability. The more inherent personal characteristics are regarded as desirable in making a good physician, while actual ability for task performance is poorly weighted.

By the end of the first year relative changes in each characteristic are observed in each trichotomized sector of the scale.[50] At the upper end of the scale, the students tend to put more emphasis on the 'ability to think in an organized way' rather than the other two inherent personal characteristics, namely 'integrity' and 'ability

TABLE 3.15

IMPORT FACTORS IN MAKING A GOOD PHYSICIAN[1]

			Very important	Fairly important	Of minor importance	No answer	Total No.	Average score	Rank order
High	Integrity	Fall	74	26	-	-	(50)	2.74	1
		Spring	76	20	2	2		2.76	3
	Ability to think in an organized way	Fall	72	28	-	-	(50)	2.72	2
		Spring	78	18	2	2		2.78	2
	Ability to get along with people	Fall	68	32	-	-	(50)	2.68	3
		Spring	72	24	2	2		2.81	1
Middle	Dedication to medicine	Fall	68	26	6	-	(50)	2.62	4.5
		Spring	50	44	4	2		2.45	7
	Warm and pleasing personality	Fall	70	22	8		(50)	2.62	4.5
		Spring	52	42	4	2		2.50	5
	Recognition of own limitation	Fall	56	42	2		(50)	2.54	7
		Spring	56	38	4	2		2.53	4
	Getting enjoyment out of medicine	Fall	60	32	8	-	(50)	2.56	6
		Spring	56	34	8	2		2.49	6
Low	Good appearance	Fall	46	46	8		(50)	2.38	8
		Spring	32	52	14	2		2.16	9
	High intelligence	Fall	20	76	4	-	(50)	2.16	9
		Spring	22	72	4	2		2.18	8
	Good management of time	Fall	24	70	6	-	(50)	2.18	10
		Spring	28	54	16	2		2.12	10.05
	Scientific curiosity	Fall	26	48	26	-	(50)	2.00	11
		Spring	26	58	14	2		2.12	10.5
	Research ability	Fall	6	46	48	-	(50)	1.58	12[2]
		Spring	4	24	68	2		1.30	12

[1] "In your opinion, how important is each of the following characteristics in making a good physician? (Answer for each)"

[2] Rank correlation p = 0.91, significant at .05 level.

to get along with people'.

A notable change in the mean score occurred with two characteristics in the middle of the scale; that is, dedication to medicine and warm and pleasing personality. Both formerly ranking 4.5 were lowered to the 7th and 5th rank respectively. At the lower end of the scale the mean score of two characteristics, 'good appearance,' and 'research ability,'[51] rated in the spring, has dropped considerably from that of the fall.

Summing up, none of the characteristics moved out of the trichotomized boundary during the first year. The coefficient of rank correlation is 0.91.

Changes in rank order would show the different outline of the image of the physician, while the actual changes in the score, without the shift of the rank position, indicate merely a slight change in some aspect of the image. The table suggests that students, as they come to the end of the first year, are more likely to emphasize the ability for actual task performance and de-emphasize the characteristics more related to personality. The image of a good physician held by first year medical students, both in the fall and the spring, is not entirely different in its outline, but rather different in the emphasis placed on its component factors.

Our questionnaires asked each student to rate, on

a four point scale the importance of several factors in
creating the make-up of a good physician. The traits were
judged to be of general relevance for being a good physician;
no comparative weight was assigned to them, they were merely
judged as important characteristics.

The next step is to examine the weighing of the
factors as they appeared for the responses. In order to
judge the comparative value of each factor in terms of an
all pervasive standard, students were asked:

> In your opinion which two of these
> characteristics are most important
> in making a good physician?

The response to this question as shown in Table 3.16 brought
about a different rank order of the characteristics from
that shown in Table 3.15.[52] Correlation between these two
rank orders both in the fall and in the spring appeared to
be very low -- Spearman rho for the fall is 0.45 and for
the spring 0.50. Distortion between two rank orders in the
fall occurred with two traits, 'dedication to medicine,' and
'high intelligence,' which are rated considerably higher than
they were in the previous question and with 'ability to get
along with people,' 'recognition of own limitation,' and
'getting real enjoyment out of medicine,' in the spring.

In the fall the characteristics of the physician
estimated most important for medicine when compared with
other professions are, as Table 3.16 shows, 'dedication to

medicine,' 'integrity,' 'ability to think in an organized
way,' and 'ability to get along with people.' The spring
answer, however, indicates a different order: "ability to
think in an organized way," "getting real enjoyment out of
medicine," and "integrity." An obvious change is apparent
between the fall and spring in that the students became more
realistic in their image of the physician. At the beginning
of the first year in medical school, students put more emphasis
on such categories: "attachment to the job" -- 'dedication
to medicine,' -- and "inherent personal characteristics" --
'integrity' -- instead of the factors necessary for the
"task performance" such as: 'ability for research' and
'ability to think in an organized way.' As the first year
comes to an end students tend to think more highly of the
category, "ability for research." Table 3.16 indicates that
'the ability to think in an organized way' is ranked most
highly in the spring.

It is interesting to note that in comparing medicine
with other professions the students were inclined to attach
greater importance to 'getting real enjoyment out of medicine'
than to 'dedication to medicine.' It might be suggested that
the students eventually realized the fact that dedication to
medicine is only possible when you get real enjoyment out of
medicine. Another thing to be noted, however, is a minority
agreement on any specific trait which might be considered as
the most important feature of a good physician. We cannot

TABLE 3.16

FREQUENCY DISTRIBUTION AND RANK ORDER OF IMPORTANT FACTORS IN MAKING A GOOD PHYSICIAN[1]

		Frequency	Rank Order
Dedication to medicine	Fall	21	1
	Spring	10	5[2]
Integrity	Fall	13	2
	Spring	14	3.5
Ability to think in an organized way	Fall	12	3
	Spring	18	1
Ability to get along with people	Fall	10	4
	Spring	16	3.5
Getting real enjoyment out of Medicine	Fall	10	5
	Spring	16	2
Warm and pleasing personality	Fall	7	6.5
	Spring	9	6
High intelligence	Fall	7	6.5
	Spring	6	8
Recognition of own limitation	Fall	5	8
	Spring	8	7
Skillful management of time	Fall	2	9
	Spring	-	11
Scientific curiosity	Fall	1	10
	Spring	1	9
Research ability	Fall	1	11
	Spring	0	11
Good appearance	Fall	-	12
	Spring	-	11

1 "In your opinion, which two of these characteristics are most important in making a good physician.

2 Proportional difference between the fall and the spring is significant at .05 level.

rank correlation ρ = 0.86

definitely say one factor is more appealing to students than others.

Schumacher indicated that applicants to medical school differ significantly from general college students, in several personality traits and that, in general, the applicants personality pattern follows closely his image of the physician.[53]

If this is the case, we could assume that the applicants for medical school have different standards for medicine than those which they have for other professions. We, therefore, asked the students: "In your opinion which two of these characteristics (above mentioned) are more important to medicine than to other professions?" Table 3.17 indicates the frequency of each charactieristic both in the fall and the spring. In general, no significant change in the frequency between the fall and the spring was observed with a few notable exceptions. The most frequently checked characteristics for medicine as compared with other professions are: dedication to medicine (forty-six per cent), recognition of own limitation (thirty-eight per cent), ability to get along with people (thirty-six per cent), and getting real enjoyment out of medicine (thirty-four per cent). Compared with factors considered the most important qualities of a good physician, each category indicates different characteristics as an important factor for medicine when medicine is compared with other professions. The one exception is

"attachment to job." Instead of integrity, 'ability to get along with people' is more important in the category "inherent personal characteristics." In the category, "ability for research," 'the recognition of one's own limitations' is more highly valued than 'the ability to think in an organized way.' This remarkable contrast is not considered to be merely accidental. To start with, medical students know that medicine is much more involved in dealing with people than any other profession and skillful treatment of people as patients is considered to be a professional virtue.

In the spring, two traits of the "attachment to job" category, 'dedication to medicine' and 'getting real enjoyment out of medicine' occurred with significantly reduced frequancy as compared to the fall. In general, the two traits considered most important in the fall were equal in their frequency in the spring, namely: 'dedication to medicine,' and 'recognition of one's own limitations.'

It is not surprising to note that the student's image of the physician upon entering medical school is primarily based on his idealized picture of medicine that real enjoyment of medicine depends on dedication to it. But the data suggest that, as the student progresses through medical school, he tends to consider as equally important other traits which were previously ignored. On the other hand, a medical career, as we noted in the section on

TABLE 3.17

FREQUENCY DISTRIBUTION AND RANK ORDER OF
CHARACTERISTICS CONSIDERED MORE
IMPORTANT TO MEDICINE THAN TO
OTHER PROFESSIONS

		Frequency	Rank Order
Dedication to medicine	Fall	23	1
	Spring	17	2.5
Recognition of own limitations	Fall	19	2
	Spring	18	1
Ability to get along with people	Fall	18	3
	Spring	17	2.5
Getting real enjoyment out of medicine	Fall	17	4
	Spring	7	6
Integrity	Fall	13	5
	Spring	10	4
Warm and pleasing personality	Fall	9	6
	Spring	6	7.5
Skillful management of time	Fall	5	7
	Spring	8	5
Good appearance	Fall	2	8
	Spring	0	12
Ability to think in an organized way	Fall	1	10.5
	Spring	6	7.5
High intelligence	Fall	1	10.5
	Spring	1	10.5
Scientific curiosity	Fall	1	10.5
	Spring	3	9
Research ability	Fall	1	10.5
	Spring	1	10.5

curriculum, was regarded as the most difficult to achieve
of the given professions with the exception of getting a
Ph.D. in physics. Presumably this perception of medicine
induces the student to conclude that only a few qualified
persons can enter into this field. He then realizes that it
is necessary to be cognizant of his limitations before under-
taking medicine as a career.

Parker[54] suggests that individual variations in
the perception of the physician differ according to per-
sonality factors. This suggestion was further emphasized
by Schumacher. He says:

> Applicants to medical school differ signi-
> ficantly from college students in general
> in several personality dimensions. This
> applicant's personality pattern follows
> his image of the physician fairly well
> with a few notable exceptions. It is
> possible that, as the degree of authori-
> tarianism increases there is more tendency
> for the student to regard the physician as
> a moral and spiritual guide of his patient.
> On the other hand, those who score low on
> authoritarianism may be more prone to think
> of the doctor-patient relationship itself
> as a therapeutic instrument that serves to
> either facilitate or hinder treatment of
> the specific moral problem.

Very little information about our students' per-
sonality factors were collected, therefore, it is not pos-
sible to make a more detailed study of the data with regard
to the relationship of personality traits to the student's
image of the physician.

TABLE 3.18

STUDENT CONCEPTIONS OF RELATIVE IMPORTANCE OF VARIOUS TYPES OF
SOCIAL BEHAVIOUR TO THE SUCCESS OF A PHYSICIAN[1]

		Percentage of Students						
		Very im-portant	Fairly important	Not at all im-portant	No ans-wer	Total students	Average score	Rank Order
To maintain an air	F	52	38	10	–	(50)	2.42	1
of confidence	S	42	46	10	2		2.32	1
To maintain a res-	F	22	62	16	–	(50)	2.06	2
trained and dignified	S	8	58	30	4		1.77	4
manner								
To be a good conver-	F	16	68	16	–	(50)	2.06	3
sationalist	S	12	70	14	4		1.97	2
To participate in com-	F	12	74	14	–	(50)	1.98	4
munity activities	S	10	66	22	2		1.87	3
To wear conservative	F	8	64	28	–	(50)	1.80	5
clothing	S	–	58	38	4		1.60	5
To have a degree from	F	6	46	48	–	(50)	1.58	6
a top medical school	S	2	36	58	4		1.42	6

1 "How important is each of the following types of social behaviour to the success of a physician? (Answer for each)"

F = Fall
S = Spring

(ii) Important Modes of Behaviour for a Good Physician

In relation to the factors regarded as necessary for a good physician, the students were also asked to rank six types of social behaviour according to their importance for the success of a physician. Table 3.18 contains the average scores for each type of behaviour both in the fall and in spring. When they were asked this question for the first time in the fall students tended to think that in order to succeed the physician must maintain an air of confidence, even when he is not confident. He must maintain a restrained and dignified manner, and be a good conversationalist. At the other end of this scale were found two other types of behaviour: the wearing of conservative clothes, and having a degree from a well known medical school. The physician's air of confidence is the type of behaviour most highly rated throughout the year, only ten per cent did not regard it as very or fairly important for the success of the physician.

Significant changes in scores between the fall and spring occurred with the item, to maintain a restrained and dignified manner, which dropped from the second in the spring to the fourth place in the fall.

A degree from a well known medical school is assessed among these students as the least important factor. Since the consequence of medical treatment is visible, a

successful physician is associated more with his individual
role performance than with the high rank of the medical
school he attended.[56]

We have discussed various types of social behaviour
in relation to the perceived importance for the success of a
physician. We are not yet able to explain why any one type
of social behaviour, for instance, air of confidence, is more
highly estimated than another. At the end of the first year
in medical school, the students, however, tend to think all
the types of social behaviour are less important for the
success of a physician, than they did at the beginning of
their training. As Table 3.18 indicates none of the above
types of behaviour gained a higher score in the spring al-
though no significant difference between the two scores has
been observed. Furthermore, each type of behaviour has been
chosen by someone as important for success. Further research
is suggested for the exploration of the following problems:
(1) Is the first year medical student not concerned with
the social behaviour of the physician? (2) Are there any
other types of behaviour that might be considered appropriate
for the success of a physician?

V. Specialization

When the amount of knowledge in a field becomes so
great that a single practitioner cannot become competent in
the entire area specialization occurs.[57] There has been an

increasing tendency toward specialization in medicine and a
considerable proportion of all physicians limit their work
to one field. According to the Survey of Physicians in
Canada[58] the number of active civilian physicians almost
doubled between 1948 and 1954, and during this same period
the proportion of specialists increased from 23.8 per cent to
29.1 per cent while general practitioners dropped to 43.2
per cent from 50.6 per cent.[59]

Medical practice is historically rooted in a lay
clientele's desire for help for problems which are recognized
as such by the clientele itself. Medical practice, in its
early stages, dealt with such problems more or less in the
way that the clientele expected.[60] But as medical knowledge
grew increasingly refined and complex, so that a single
practitioner could hardly be competent in all the fields, the
need for the development of specialized practice arose.
This need brought about the early development of different
types of professional practice, in such fields as ophthalmology,
orthopedics, and urology, and later ones such as anesthesiology,
pathology, and radiology. The later specialties were not
sought out by the client in answer to his own self-perceived
needs, but were essentially services by physicians to
facilitate the work of their colleagues. The conscious demand
for these new specialties stemmed from the perceived needs of
physicians themselves, or from the hospital, but not directly
from the needs of their clients.

This division of labour in medicine leads individuals to pursue specialized tasks in a separate department of professional organization. An individual performing such a specific task is responsible for a clearly defined role. At the same time a specialized task provides the individual with the justification for not being fully capable of performing tasks that fall outside the specialties.[61] Another aspect of specialization is the establishment of a range of limited ambitions that people may pursue.

As indicated thus far the defining characteristics of the medical profession is its possession of a body of specialized skills and knowledge. Proficiency in these special skills and knowledge is a prerequisite for limiting one's work to one's field.

As we noted before, during the last few years the proportion of specialists has increased considerably while the proportion of general practitioners has decreased. The extent to which this trend has affected medical students' attitudes toward specialization, and the main factors that lead them to choose certain specialties, will be discussed.

Students were asked:

How much have you thought about the kind of medical career you would like to have: a great deal, a fair amount, only a little, or not at all?

Although the beginning students know relatively little about their own specific interests and talents, and also relatively little about the specialized training available to develop their interest, the majority of these students appear to have given a great deal of consideration to the question of specialization.

TABLE 3.19

STUDENT CONSIDERATION OF SPECIALTY CHOICE

	Percentage of Students	
	Fall	Spring
A great deal	24	16
A fair amount	52	58
Only a little	22	24
Not at all	2	2
Number of Students	50	50

Percentage difference statistically not significant at .05 level.

As Table 3.19 indicates, more than seventy per cent responded to give "a great deal" and "a fair amount" of consideration to the choice of their specialty both on entering medical school and by the end of their first year.

Only two per cent -- one student -- had not thought of it
at all.

(i) The Choice of Specialties

        We then asked students to indicate two kinds of
careers, one, the field they would most like, and the other,
the field they would least like to enter. The results are
recorded in Table 3.20. The table shows that at the
beginning of the school term the most frequently preferred
fields are Surgery, twenty-six per cent; Research, eighteen
per cent; Paediatrics, fourteen per cent. On the other hand,
twenty per cent chose Psychiatry; eighteen per cent, General
Practice; and ten per cent Pathology as the fields of least
preference. But the pattern of choice of specialties, at
the end of the first year takes quite a different form. As
Table 3.20 further indicates, students then most frequently
chose Surgery, General Practice, Paediatrics and Medicine.

        The proportion of students in the spring who chose
medicine or general practice is considerably larger than
that in the fall, and there is a significant decrease in the
choice for Research.

        Meanwhile on the negative side of their career
plans we found more fields which students did not prefer in
the spring. They are: Psychiatry, eighteen per cent;
Research, sixteen per cent; Dermatology, twelve per cent;

TABLE 3.20

PERCENTAGE DISTRIBUTION OF THE CHOICE OF SPECIALTY

	Most like to enter		Least like to enter	
	Fall	Spring	Fall	Spring
Surgery	26	22	6	4
Research	18	8	2	16
Paediatrics	14	18	4	–
Obs. and Gyn.	8	6	4	6
Psychiatry	8	4	20	18
Medicine	6	18	–	–
Pathology	2	–	10	2
Public health	2	2	–	20
General practice	2	22	18	4
Orthopaedics	–	–	6	6
Dermatology	–	–	6	12
Ear, nose, throat	2	–	4	10
Other	10	–	18	2
No answer	2	–	2	–
Total Students	50	50	50	50

Ear, nose and throat and Public Health, ten per cent.
Only Psychiatry was markedly not preferred. It is inter-
esting to note that in the spring there is a much larger
list of newly-recognized not preferred fields.

In summary,

(1) Throughout the year Surgery holds its own as the field of positive choice while Psychiatry remains as the field of negative choice.

(2) A remarkable change in student attitude to choice of specialty occurs in three fields: General practice, Research, and Public Health.

General practice, the least popular career field in the fall, appeared in the highest rank of the preferred field in the spring being only second to Surgery. On the other hand, the reverse situation obtained for the field of research.

For the purpose of comparing our data with others gathered in the U. S. we rearranged Table 3.20 as follows:

TABLE 3.21

STUDENTS' PLANS FOR LATER CAREER

Most like to enter	Fall	Spring
	Percentage of Students	
General Practice	2	22
Specialty Practice	66	70
Other (Research and Teaching)	28	8
No answer	4	-
Total Students	50	50

In spite of a considerable increase in the proportion of students, general practice is still less frequently chosen as a future career than the specialty practices.

If it can be assumed that our subjects are a sample of all medical students in Canada the difference in the pattern of career plans of first year medical students of Canada and the U. S. are quite striking. Table 3.22 compares the career plans of the first year student in the two countries.

TABLE 3.22

CAREER PLANS OF FIRST YEAR MEDICAL STUDENTS AT
U.B.C.[1] CORNELL UNIVERSITY[2] AND OTHERS[3]

Plan to go into	U.B.C.	Cornell	Others
	Percentage of Students		
General Practice	22	60	46
Specialty Practice	70	35	46
Others (Research or Teaching)	8	5	5
No response			2
Total Students	50	75	349

1 We use, here, only the spring answer.

2 Kendall, P., and Selvin, H., "Tendencies toward Specialization in Medical Training," Merton and others, op. cit., p. 153.

3 Funkenstein, D. H., "The Implications of Diversity," Gee and Glaser, op. cit., p. 51.

The above table indicates that the first year medical students at U.B.C. are more likely to choose specialty practice than are students in the two samples from the U. S.

The first year medical students at U.B.C. show in their career plans a tendency that is closer to that of fourth year students at other universities in the United States. Two questions should be answered in relation to this difference between these two groups of students.

(1) Can it be assumed that the proportion of the first year medical students who plan to go into General practice is gradually decreasing as the years go by? It is important in this regard to observe the dates when these data were collected: the Cornell Study in 1952, the Funkensteins Study in 1956 and our study in 1959.

(2) If the first assumption is not true, then are there definite differences between two countries in the perspectives of first year medical students concerning career plans?

Table 3.22 also indicates that the great majority of medical students are oriented toward medical careers in general or specialty practice rather than toward academic medicine such as research and/or teaching. All three samples show that no more than ten per cent of the students plan to enter these fields.[62]

(ii)   Reasons for the Choice of a Specialty

There are many significant factors that lead medical students to choose either a specialty or general practice. However, we attempted to find out those factors or characteristic features of medical practice which were considered important.

Students were asked:

Below are some considerations that might enter into your selection of a specialty or general practice in medicine. Which two are most important to you as you think about your career? Which two are least important?

Table 3.24 finds no significant difference between the proportion of the students in response to this question. The most common and frequently mentioned considerations are:

(1)   Meeting diagnostic problems that are particularly challenging.
(2)   Having opportunities to know your patient well.
(3)   Having patients who will appreciate your efforts.

It is not surprising, then, to find the factors which are least important in selection of a specialty or of a general practice are as follows:

(1)   Being able to establish your own hours of work.
(2)   Earning a good income.
(3)   Having prestige within the medical profession.

TABLE 3.23

MOST (LEAST) IMPORTANT CONSIDERATION FOR THE SELECTION
OF A SPECIALTY OR OF GENERAL PRACTICE

		Most Important		Least Important	
(1)	Having the opportunity to know your patients well	26	33	1	2
(2)	Being able to establish your own hours of work	5	–	29	34
(3)	Meeting diagnostic problems that are particularly challenging	33	36	3	3
(4)	Having enjoyable relationship with colleagues	3	3	11	10
(5)	Making good income	3	4	26	28
(6)	Having patients who will appreciate your efforts	21	16	2	4
(7)	Having prestige within the medical profession	4	3	21	16
	No answer	6	4	8	3
	Total Number	100	100	100	100

It is apparent that one first year medical student
is more ready to indicate common stereotyped reasons which
are usually given as the factors motivating entrance into
medicine. He tends to think that role performance in medicine
is the important consideration, and not good income or high

prestige. This task-oriented attitude applies generally
to every field in medicine. At the outset the factors pre-
sented were too common and vague to elicit specific reasons
for the choice fo specific fields in medicine as shown in
Table 3.24. They became clearer when they are broken down
into each field. As Table 3.25 shows, the three most important
considerations are equally distributed into each individual
field as a total proportion for each factor.

Further exploration of the factors which affect the
choice of a career in medicine will be made later.

VI. Remuneration

Remuneration refers to the financial and other
rewards students expect to derive from their work.

(i) Financial Rewards: Income

Occupations differ in their income; such differences
are a compound of both monetary and symbolic rewards.[63] In
the monetary sense, income brings about economic power; in
the symbolic sense income determines one's relative standing
in society. It is conceivable that students want to be
economically secure since they invest much time and a great
amount of effort to achieve this goal. Three out of ten of
the medical students studied by Cahalan[64] specified financial
return or economic security as one of the primary aspects of
being a doctor.

TABLE 3.24

SPECIFIC CONSIDERATIONS IN THE CHOICE OF SPECIALTY

	Number of Students								
	Medicine	Surgery	Obs. and Gyn.	Paedia-trics	Psychia-try	Public Health	G.P.	Re-search	N.
(1) Having opportunity to know your patient well	3	6	3	7	2	1	7	4	33
(2) Being able to establish your own hours of work	-	-	-	-	-	-	-	1	1
(3) Meeting diagnostic problems that one finds challenging	7	8	2	7	2	-	7	3	36
(4) Having enjoyable relationship with colleague	-	1	-	-	-	-	-	-	1
(5) Making a good income	3	1	1	-	-	-	-	-	5
(6) Having patients who will appreciate your efforts	3	6	1	1	-	1	4	1	16
(7) Having prestige within the medical profession	2	-	-	1	-	-	-	-	3

TABLE 3.25

SPECIFIC CONSIDERATIONS IN THE CHOICE OF SPECIALTY

	Number of Students			
	Specialty practice	General practice	Research	Public Health	N.
(1) Having opportunity to know your patient well	21	7	4	1	33
(2) Being able to establish your own hours of work	–	–	1	–	1
(3) Meeting diagnostic problems that one finds challenging	26	7	3	–	26
(4) Having enjoyable relationship with colleagues	1	–	–	–	1
(5) Making a good income	4	–	–	–	4
(6) Having patients who will appreciate your efforts	11	4	–	1	16
(7) Having prestige within the medical profession	3	–	–	–	3

Monetary income varies not only in the different specialties, but in the forms of payment: salaries and wages, cash and checks, weekly and monthly pay. Research shows that

seven out of eight medical students preferred a non-salaried to a salaried type of practice.[65]

In this regard our students were asked the amount of yearly income they expected both in ten years after graduation and at the peak of their career.

(a) Income expectation of the physician

Before asking the medical students their expectation with respect to financial returns, they were asked to estimate the average yearly income of the specialist, and of the general practitioner. Table 3.26 indicates that students' estimation of the annual net income (median) of general practitioners averaged $11,346 in the fall, and $10,833 in the spring, whereas specialists were expected to enjoy a higher income; the estimation was $16,500 and $15,875 in the fall and in the spring respectively.

We found no significant change in the amount of median income of specialists and general practitioners. However, it was noticed that the expected income of a physician at the end of the first year was less than at the beginning of the year.

Compared with the actual annual income of a practising physician which amounted to $14,000 in 1959,[66] students' estimates in general do not fall short by much. It seems to be generally agreed among the students that the

TABLE 3.26

STUDENTS' EXPECTATION OF AVERAGE YEARLY INCOME
OF THE SPECIALIST AND OF THE GENERAL
PRACTITIONER

		Number of Students		
		Specialist		General Practitioner	
	Fall	Spring	Fall	Spring
1. Under $5,000				
2. 5,000 - 10,000	1	1	17	20
3. 10,000 - 15,000	17	20	26	27
4. 15,000 - 20,000	20	20	5	1
5. 20,000 - 25,000	9	8	-	1
6. 25,000 over	1	-	-	-
No answer	2	1	2	1
Total Students	50	50	50	50
Median income	$16,500	$15,875	$11,346	$10,833

The difference between the average income of the
specialist and of the General Practitioner is
significant at the 0.001 level both in the fall
and in the spring

annual net income of a specialist is much higher than that of
a general practitioner.

(b)   Students' expected income

We now come to expectation of students' own income.

What yearly income do you think you might
realistically expect ten years after
medical school and at the peak of your
career?

As a group they anticipated annual net incomes at
the height of their careers about thirty per cent greater
[$16,310 in the fall and $15,972 in the spring, (median)]
than the earnings they expect when they have been out of
medical school for ten years. Only one student in the fall
anticipated he would be making less than $10,000 at the peak
of his career. No significant difference between the amount
estimated in the fall and in the spring is observed.

It is interesting to note that the two distribution
curves of the estimated income for both general practitioners
and specialists are parallel to the students' expected income
ten years after medical school and at the peak of their
career. At the beginning of the year students think that
ten years after graduation they might realistically expect
an annual net income amounting to $11,400. This is approxi-
mately the same as the expected income of the general
practitioner. By the end of the first year they looked
forward to slightly higher incomes for themselves ten years
after graduation than the general practitioner actually
receives (the median is $11,875 for students, $10,833 for

TABLE 3.27

REALISTIC EXPECTATION OF YEARLY INCOME TEN YEARS AFTER MEDICAL SCHOOL AND AT THE PEAK OF CAREER

	Number of Students			
	Ten years after medical school		At the peak	
	Fall	Spring	Fall	Spring
Under $5,000				
5,000 - 10,000	18	14	1	
10,000 - 15,000	25	28	18	21
15,000 - 20,000	6	6	21	18
20,000 - 25,000	1	1	6	10
25,000 or over			3	-
No answer		1	1	1
Total Students	50	50	50	50
Median income	$11,400	$11,875	$16,310	$15,972

Percentage difference is not statistically significant at .05 level.

general practitioners. (The difference between the two incomes is statistically not significant.)

If we look at both Table 3.26 and Table 3.27 again

we find that their realistic expectation of a yearly income
at the peak of their career is quite closer to the estimated
income of the specialist.

With regard to students' expected income, two
other data are available.

TABLE 3.28

EXPECTED INCOME OF FIRST YEAR MEDICAL STUDENTS
AT THE PEAK OF THEIR CAREER, AND TEN YEARS
AFTER GRADUATION

	Estimated Income		
	U.B.C. (1959)	Cahalan's (1956)	A.A.M.C. (1957)
At the peak	$15,972	$22,340	$20,595
In ten years	$11,875	$14,230	$14,185

The above table indicates a difference in the
expected annual income of U.B.C. first year (1960) medical
students, and of two samples of U. S. first year medical
students' studies by Cahalan (1956) and by the Association
of American Medical Colleges (1957). Detailed comparison of
our subjects with U. S. medical students shows the same
difference between expected income, both with regard to ten
years after graduation and at the peak of their careers.

If the expected incomes are not greatly affected by the time interval between 1957 and 1960, the difference may reflect the prospects of the medical profession in both countries.

(c) Perception of the peak of career

Correlation of the students' expected income in ten years after medical school with that at the peak of their career is summarized in Table 3.29 which indicates that no one expected his income in ten years after medical school to be higher than that at the peak of his career.

TABLE 3.29

CORRELATION BETWEEN STUDENTS' EXPECTED INCOME AT THE PEAK OF THEIR CAREER AND IN TEN YEARS AFTER MEDICAL SCHOOL. SPRING

2: no answer

However, a few, namely eighteen per cent, gave the identical estimate for both points in time. This probably means that students do not expect to reach the peak of their careers within ten years, but at a more remote point in time.

(d) Satisfaction with the expected income

How satisfied will you be with the yearly income you think you might realistically expect, very satisfied, fairly satisfied, and dissatisfied?

Most of the students appeared to be quite satisfied with their 'realistic' expectation of income both ten years after graduation, and at the peak of their careers.

Table 3.30 and Table 3.31 show the relation between the expected amount of income and the corresponding expected satisfaction with it. Ten years after medical school the expectation of income and of satisfaction with it appeared to have a positive correlation, i.e. the greater the expected income the more the satisfaction. But as Table 3.31 shows, at the peak of their career the assumption derived from Table 3.30 can hardly borne out. Students who expected to earn a median income of $12,500 are likely to express more satisfaction than those students whose expected median income is $17,500.

This finding suggests further research is needed on the relationship between the expected income level, and the expected satisfaction with it.

TABLE 3.30

RELATION BETWEEN THE EXPECTED INCOME TEN YEARS AFTER MEDICAL
SCHOOL AND EXPECTED SATISFACTION WITH IT.   SPRING

	Expected Income			
	$5,000 10,000	$10,000 15,000	$15,000 20,000	$20,000 25,000
Degree of Satisfaction	Percentage of Students			
Very satisfied	64	67	83	100
Fairly satisfied	36	33	17	-
Dissatisfied	-	-	-	-
Total Students	14	28	6	1

(ii) Non-financial Rewards

Non-financial reward takes the form of the psycho-
logical rewards, or certain privileges which accompany
enhanced positions. Cabot[67] describes the rewards, besides
income, which a doctor may reasonably expect to find in his
professional work. They are:

To be able to practice a profession in which
the pursuit of truth pays, and pushes itself
under our very noses in the midst of our

TABLE 3.31

RELATION BETWEEN THE STUDENT'S EXPECTED INCOME AT THE PEAK
OF CAREER AND EXPECTED SATISFACTION WITH IT.   SPRING

	Expected Income			
	$5,000 10,000	$10,000 15,000	$15,000 20,000	$20,000 25,000
	Percentage of Students			
Very satisfied	-	71	65	90
Fairly satisfied	-	29	35	10
Dissatisfied	-	-	-	-
Total Students		21	17	10

utilitarian and money making activities;
its opportunities for the exercise of
authority and leadership; the ability to
conserve talents of youth in the
facilities of sense and muscle; the oppor-
tunity to get friendly with all sorts of
conditions of men, women and children;
the chance to cut across the enmities
and divisions of men and a flag of truce,
the call to the teacher latent in most of
us.

We will attempt to measure non-financial rewards by
ascertaining the students' perceived satisfaction with their
careers. Professional satisfaction has emerged as the most

important factor in determining the student's choice of career.[68] We may possibly expect that the greater the satisfaction with medicine as a future career, the stronger the identification of oneself as a physician. To a great extent it is a future professional satisfaction which motivates students to undertake training.

In this regard students were asked:

Which one of the following statements best describes the way you feel about a career in medicine? (check one)

1. It is the only career that could really satisfy me.

2. It is one of several careers which I could find almost equally satisfying.

3. It's not the most satisfactory career I can think of everything else considered.

4. A career I decided on without considering whether I would find it the most satisfying.

The results are summarized in Table 3.32. Throughout the first year more than sixty per cent of the students feel that medicine is the only career that could really satisfy them. Thirty-four per cent express less satisfaction than the above group: medicine was one of several careers which they could find almost equally satisfying.

A notable thing, in one sense, is that no one decided to choose medicine as a career without considering whether he would find it the most satisfying. Most of these

TABLE 3.32

DESCRIPTION OF STUDENTS' FEELINGS ABOUT
A CAREER IN MEDICINE

	Percentage of Students	
Feeling about Medicine as a Career	Fall	Spring
It's the only career that could really satisfy me	70	64
It's one of the several careers which I could find almost equally satisfying	24	34
It's not the most satisfying career I can think of, everything considered	6	2
A career I decided on without considering whether I would find it the most satisfying	-	-
Total Students	50	50

Proportional difference is statistically not

significant at .05 level.

students appear to be well satisfied with their choice of a

profession, and are looking forward with considerable

confidence to achieving the particular careers in medicine

that they desire. Similar results were found by Don Cahalan

and others,[69] and also by the Association of American

Medical Colleges[70] for U. S. medical students. At the same time, Cartwright[71] discovered similar findings based on the study of British medical students.

We did not further attempt to discover the elements which contribute to the attainment of professional satisfaction. In the study of medical students, which included the fifth year at Edinburgh University, Cartwright asked students to indicate the degree of importance of various factors in contributing to professional satisfaction. She found that the variety of problems presented were most generally thought to be very important, and that diagnostic problems and contact with other professional people were also considered as very important by at least half the students. It is interesting to note that she found those factors commonly referred to as influential in the choice of a career, such as status in the community, gratitude of patients, and opportunities for research, at the lower end of the scale. As she further pointed out, the elements which are felt to contribute significantly to their professional satisfaction vary considerably with different individuals and groups.[72]

(iii) Future Plans for Professional Activity

Besides financial income students were also asked:

If you could arrange it, in which of the following situations would you plan to

           carry out the professional activity you
           said you prefer most?

The results are summarized in Table 3.33. No significant

difference in the percentage distribution between fall and

spring is evident. More than half of the students, sixty

per cent, would like to carry out the desired specialty

in their own professional office with hospital affiliation,

whereas only four per cent seem to plan to have their future

work in their own professional office, but without hospital

affiliation. The proportion of the students who want to

work in large private clinics or hospitals and those who want

to work in small groups proved to be almost equal -- less

than fifteen per cent. Throughout the year only a minority,

six per cent, wished to remain in medical school. To put

this finding in another way, the majority of first year

students plan to carry out their future professional

activity with a great deal of autonomy. As they stated

above, they expect to be the masters of their future pro-

fessional activity.

        It is not surprising that in the fall and again

in the spring, the majority of the students, sixty per cent,

chose as their preference "own professional office with

hospital affiliation." One can easily see that the medical

student's image of the future is more likely to be drawn

from the common image of a doctor enjoying autonomy in his

own office. The service orientation predominant among the

TABLE 3.33

STUDENTS' PREFERENCES FOR THE WORK SITUATION
IN WHICH THEY WOULD LIKE TO CARRY OUT
THEIR PROFESSIONAL ACTIVITY

| | Percentage of Students | |
	Fall	Spring
Own professional office with his affiliation	60	60
Own professional office without affiliation	–	4
Large private clinic or hospital	18	12
Small group clinic	12	14
Medical school	6	6
Others	2	4
No answer	2	–
Total Students	50	50

first year medical students[73] is seen as practicable only
where they have control over the setting in which they will
display their art. Furthermore, students do not know the
advantages and disadvantages of one setting over another.
The choice at this time is only of a career, the realization
of which is too remote to be looked at realistically.

B. RELATIONSHIP BETWEEN SELECTED VARIABLES

So far we have observed separately changes in all the variables of adult socialization during the first year. Our attention has been concentrated on group change, that is to say, how the first year medical student changes his attitudes or values between the beginning and the end of the year.

In Part B, therefore, we will try to ascertain:

(1) To what extent independent variables affect dependent variables both at the beginning and at the end of the year.

(2) If the effects of independent variables [I] on the dependent variables decrease (or increase) how, then, does variation in the dependent variables correspond with variation in the independent variables [II]?

Thus we can compare the effects of both the independent variable [I] and the independent variable [II] on the dependent variable at the end of the year.

A good number of relationships between two variables, dependent and independent, can be correlated mathematically. We cannot, however, continue to relate independent variables one by one without some reasonable theoretical ground for doing so. Only those relationships between variables will be examined for which there are theoretical bases.

I. Self-Evaluation

As we noted before, mediating between the student and his relation with others in his role-sets is his self-evaluation. In this regard we will look at the self-evaluation in its relation to other factors of independent variables [II].[73]

Again we feel that our sample is too small to be distributed into a six or ninefold table. As will be shown later, one cell of a sixfold table often shows only one case which represents more than ten per cent. Our findings can hardly be conclusive, but they will suggest further investigation. For convenience of discussion we will combine the two categories of self confidence, "about average" and "below average" into one called "less confident," and designate them as Class B and we will call the more confident students "Class A."

Table 3.34 summarizes the relation between the degree of self-evaluation and their opinions on competition among students. There is little difference between Class A and Class B students with respect to their feelings about competition. But Class A shows a relatively more favourable attitude toward competition. Nineteen per cent of Class A stated that they dislike competition while twenty-one per cent of Class B have the same attitude. As the table further indicates, at the other end of the scale, Class A

TABLE 3.34

SELF-EVALUATION AND OPINIONS ON COMPETITION
AMONG STUDENTS.   SPRING

	Degree of Self-Confidence	
	Percentage of Students	
Opinion on competition among students	More confident	Less confident
Dislike them somewhat	19	21
Neutral feelings	31	32
Enjoy them	50	47
Total Students	16	34

TABLE 3.35

DEGREE OF SELF-EVALUATION IN RELATION TO
INVOLVEMENT IN COMPETITION.   SPRING

	Degree of Self-Confidence	
	Percentage of Students	
	More confident	Less confident
Quite a bit concerned	50	56
Little concerned	50	38
Not at all concerned	-	6
Total Students	16	34

is more likely to enjoy the competition than Class B. But
when they were asked how much they were concerned with
competition, almost all students stated that they were in
some way concerned with competition. Table 3.35 shows that
only six per cent of Class B responded negatively. No
significant proportional difference between Class A and
Class B according to (positive) opinions on competition is
evident.

With regard to the relationship of the degree of
self-confidence and their opinion about the direction given
by faculty, Table 3.36 indicates that the students with high
confidence tend to express less dissatisfaction with the
amount of direction given by faculty than those who are less
confident. While twenty-five per cent of Class A stated
the lack of direction by faculty, thirty-eight per cent of
Class B expressed the same opinion. At the other end of the
scale, only Class A stated that faculty gave more than enough
direction.

II. Motivation

In the previous part the motivation for entry into
medicine, and the goals current while studying medicine were
discussed in terms of the occupational value. But choosing
to become a doctor, and choosing to continue as one are not
only governed by the individuals internal dispositions but
also by outside factors such as influences of other people or
situations.

TABLE 3.36

DEGREE OF SELF-EVALUATION AND OPINION ON AMOUNT OF DIRECTION GIVEN BY THE MEDICAL FACULTY

	Degree of Self-Confidence	
	Percentage of Students	
Opinion on direction given	More confident	Less confident
Too little direction	25	38
About the right amount	62	62
More than enough direction	13	-
Total Students	16	34

As previously suggested the student's behaviour is primarily governed by individual motivation. Of course this is not to say that outside factors are negligible, but that they are secondary.

Individual occupational values as a motivation may appear in different patterns according to the situations in which students find themselves. Therefore, we shall first try to ascertain how various occupational values are related to family background.[74]

It is often argued that values are the outcome of the socio-economic background of the individual and "his current situation." According to Hyman[75]

It can be noted that the values are a
resultant of both the 'class history'
of the individual and his current
position. Individuals of equal cur-
rent position reflect the values of
their parents' class. It is also true
however, that individuals with the
same class origins have different values
depending on their current position.

Owing to the fact that a majority of students,
namely seventy per cent, are from the upper class[76] we shall
try to consider the relationship of the three occupational
values noted above to economic pressure.

Table 3.37 is the summarization of the relationship
which appeared in the fall between three elements of occu-
pational values and the degree of economic pressures.

It is evident that neither a uniform pattern nor
any significant difference in the distribution is evident in
the relationship between the "self-oriented" value and the
degree of economic pressure.

Contrary to our expectation that students in
difficult economic situations are more likely to stress the
"reward-oriented" value, we find rather that the reverse
relation is suggested.

With regard to the "autonomy-oriented" value two
categories, "fairly difficult" and "not very difficult"
appeared to be identical. When all the categories are
combined into two, "difficult" and "not difficult," the

TABLE 3.37

VALUES AND THE DEGREE OF ECONOMIC
PRESSURE OF STUDENTS. FALL

	Percentage of Students			
	Degree of Economic Pressure			
	Very difficult	Fairly difficult	Not difficult	No answer
"Self-oriented" value				
Checked	67	80	60	
Unchecked	33	20	40	
Total students	9	25	14	2
"Reward-oriented" value				
Checked	33	28	57	
Unchecked	67	72	43	
Total students	9	25	14	2
"Autonomy-oriented" value				
Checked	44	36	36	
Unchecked	56	64	64	
Total students	9	25	14	2

result still does not show any significant difference between
the proportion of students in the two categories who stressed
the "autonomy-oriented" value.

In general, occupational values do not seem to be
related to the degree of economic pressure.

Table 3.38 and 3.39 also indicate that in the fall no striking relationship is established between occupational value and the dichotomies of rural-urban students, or students with or without a physician father.

TABLE 3.38

OCCUPATIONAL VALUES AND COMMUNITY BACKGROUND. FALL

	Percentage of Students	
	Community Background	
	Urban	Rural
"Self-expression-oriented" value		
Checked	67	86
Unchecked	33	14
Total students	36	14
"Reward-oriented" value		
Checked	41	36
Unchecked	59	64
Total students	36	14
"Autonomy-oriented" value		
Checked	39	21
Unchecked	61	79
Total students	36	14

Proportional difference is not statistically significant at .05 level.

TABLE 3.39

VALUES AND MEDICAL FAMILY. FALL

| | Medical Family | |
| | Percentage of Students | |
	M.D. Father	Non-M.D. Father
"Self-expression-oriented" value		
Checked	33	68
Unchecked	67	32
Total students	6	28*
"Reward-oriented" value		
Checked	33	36
Unchecked	67	64
Total students	6	28*
"Autonomy-oriented" value		
Checked	17	32
Unchecked	83	68
Total students	6	28*

* Proportional difference is not statistically significant at .05 level.

In short, we found no relationship between occupational values and the three factors of family background.

In the spring, however, after a year of medical training it would seem that student conceptions of

occupational value were clarified; that is to say, new
patterns begin to emerge besides that of the "people-
oriented" complex of occupational values common to a large
majority of students of entry to medical school. In the
new patterns we see personal background playing an important
role in determining more specific values.

Table 3.40 indicates two characteristic aspects
of the relation between value and economic pressure:
The "self-oriented" value is more highly stressed by the
students in a difficult current economic situation than by
those who are better off. The "reward-oriented" value is
more strongly emphasized by the latter.

No such clear pattern of residential background
and medical family emerges from our tables (Tables 3,41,
3.42), as related to occupational value. These two factors
were found not to be so influential in shaping the occupational
values.

In summary:

It was indicated that occupational values stressed
by students in their choice of medicine as a career are not
greatly influenced by personal background factors, namely,
economic pressure, medical family, or residential background.

Occupational values which motivate students "to
remain in medicine" appear in different patterns apparently

TABLE 3.40

PERCENTAGE OF STUDENTS ACCORDING TO VALUES AND THE
DEGREE OF ECONOMIC PRESSURE. SPRING

	Degree of Economic Pressure		
	Percentage of Students		
	Very difficult	Fairly difficult	Not difficult
"Self-expression-oriented" value			
Checked	100	89	62
Unchecked	-	11	38
Total students	4	28	18
"Reward-oriented" value			
Checked	-	36	62
Unchecked	100	64	38
Total students	4	28	18
"Autonomy-oriented" value			
Checked	50	43	50
Unchecked	50	57	50
Total students	4	28	18

related to current economic situations.

The less affluent students are more likely to stress the "self-expression-oriented" value more than the affluent students, while the reverse relationship occurred with the

TABLE 3.41

VALUES AND COMMUNITY BACKGROUND.   SPRING

	Community Background	
	Percentage of Students	
	Urban	Rural
"Self-expression-oriented" value		
Checked	83	86
Unchecked	17	14
Total students	36	14*
"Reward-oriented" value		
Checked	47	64
Unchecked	52	36
Total students	36	14*
"Autonomy-oriented" value		
Checked	39	64
Unchecked	61	36
Total students	36	14*

* Proportional difference is not statistically significant at .05 level.

"reward-oriented" value.

Our next problem was to ascertain how the individual occupational value is related to the student's self-assessment of his ability to perform a given task.

TABLE 3.42

VALUES AND MEDICAL FAMILY. SPRING

	Medical Family	
	Percentage of Students	
	Parent M.D.	Parent in other Occupation
"Self-expression-oriented" value		
Checked	80	75
Unchecked	20	25
Total students	8	30*
"Reward-oriented" value		
Checked	47	62.5
Unchecked	53	37.5
Total students	8	30*
"Autonomy-oriented" value		
Checked	50	37.5
Unchecked	50	62.5
Total students	8	30*

* Proportional difference is not statistically significant at .05 level.

People choose an occupation in order to satisfy their prior occupational values. Usually these seem to be the values commonly held by society. But the same people may

adopt other values after choosing an occupation because they consider them more appropriate in professional activity. This revising of values after commitment to an occupation is usually not based on the stereotyped values but on an individual's evaluations based on a consideration of his own ability with respect to the chosen field. We shall, therefore, try to understand now how the degree of self-evaluation of own ability is reflected in different occupational values.

The "people-oriented" value is stressed by most of the first year students throughout the year both for choosing and remaining in medical school. It will not be discussed here because it is obviously a common value for the students.

Although the "self-expression oriented" value is stressed by a majority of students, those with greater confidence are more likely to emphasize it than the less confident students. However the proportion of students with moderate assessment emphasized this value less than students who made a low appraisal. When these two categories of students are combined, i.e., those with moderate and those with low confidence the above suggestion of a positive relation between the emphasis on the "self-expression-oriented" value and the degree of self-confidence is given further confirmation.

With regard to stress on the "reward-oriented" value, Table 3.43 indicates consistently that the higher the

TABLE 3.43

VALUES AND DEGREE OF SELF-EVALUATION. SPRING

	Degree of Self-Evaluation		
	Percentage of Students		
	Better than average	About average	Below average
"Self-expression oriented" value			
Checked	93	79	83
Unchecked	7	21	17
Total students	16	28	6
"Reward-oriented" value			
Checked	50	46	33
Unchecked	50	54	67
Total students	16	28	6
"Autonomy-oriented" value			
Checked	44	50	33
Unchecked	56	50	67
Total students	16	28	6

degree of confidence the greater the stress. Fifty per cent
of students with high confidence are inclined to emphasize
this value when giving their reasons for remaining in medical
school. Thus did forty-six per cent of students in the next
category of confidence, while thirty-three per cent of those

with low confidence gave the same emphasis. The "autonomy-oriented" value does not show any consistent pattern according to different degrees of self-confidence.

Up to now we have noted that the occupational values for remaining in medicine, "self-expression-oriented" value and "reward-oriented" value are highly related to two operative factors, economic pressure and self-evaluation.

We shall, therefore, try to ascertain how these three factors are interrelated.

Results obtained from our data are summarized in Table 3.44. Partly for the purpose of simple comparison, and partly due to the scarcity of data we classified students current economic situation into two; "difficult," and "not difficult."

With respect to the "self-expression-oriented" value we can hardly discuss the students in the difficult situation, because only three students in this group did not emphasize this value complex, but in the case of the students who are not in difficult economic situations the table makes it apparent that students with higher confidence are more likely to stress the "self-expression-oriented" value complex than those who are less confident.

The "reward-oriented" value indicates interesting results. As can be seen from the table, among the less

TABLE 3.44

VALUES, SELF-EVALUATION AND ECONOMIC PRESSURE. SPRING

| | Economic Pressure | | | |
| | Difficult | | Not Difficult | |
Degree of Self-Evaluation	Checked	Unchecked	Checked	Unchecked
"Self-expression-oriented"				
better than average	89	11	100	–
about average	94	6	55	45
below average	83	17	–	–
"Reward-oriented"				
better than average	25	75	86	14
about average	41	59	64	36
below average	83	17		

affluent students the stress on the "reward-oriented" value complex increases as the degree of self-confidence decreases whereas among the affluent students the opposite tendency occurs. Upon this point, further research is required because our sample is too small to make a definite conclusion.

III. Identification

One might very well argue that unlike children with a father in a non-medical profession, the children of physicians have a living model whom they can observe and perhaps thereby be influenced in their choice of a career. If this is the case, would the students who are the sons of physicians more easily create a self-image as a doctor than those who are not? Our data seem to contradict this assumption. No remarkable difference was evident throughout the year. As Table 3.45 rather shows, the students with a medical family background have less tendency than others to gain such a self-image in the spring.[77]

It appears that easy access to the role model does not necessarily create an early self-image as a doctor in the medical student. Perhaps, paradoxically, earlier access to this model may prolong the creation of the image, presumably because a student with this advantage is better informed about the requirements of the profession.

Following Martin's proposition that the greater the students' self-confidence, the earlier the tendency to see themselves as physicians rather than as students only, we shall try to ascertain whether the expectation of when they will have a self-image as doctors is related to their degree of self-confidence.[78]

We examined this proposition in our study. The

TABLE 3.45

STUDENTS' EXPECTATION OF HAVING SELF-IMAGE AS
DOCTORS AND MEDICAL FAMILY

	Family	
	Percentage of Students	
Expected Period	M.D. Father	Non-M.D. Father
Fall		
During first two years in medical school	12.5	3
During last two years in medical school	12.5	20
During internship and residency	62.5	70
Haven't given it any thought	12.5	7
Total students	8	30
Spring		
During first two years in medical school	-	7
During last two years in medical school	25	23
During internship and residency	62.5	67
Haven't given it any thought	12.5	3
Total students	8	30

results are summarized in Table 3.46 and turned out quite
contrary to our expectation. Among other things, out of
six students with low confidence in their ability, two
expected that they would first come to think of themselves
as doctors during the initial two years in medical school,
while none of the students in the other categories of con-
fidence had the same expectation. In addition, no student
with a low confidence stated that he "hasn't given any thought."

TABLE 3.46

STUDENTS' EXPECTATION OF HAVING SELF-IMAGE AS DOCTORS
ACCORDING TO DEGREE OF SELF-EVALUATION

	Degree of Self-Evaluation		
	Percentage of Students		
Expected period	Better than average	About average	Below average
During first two years in medical school	-	-	33
During last two years in medical school	38.5	25	-
During internship and residency	50	71	67
Haven't given it any thought	12.5	4	-
Total students	16	28	6

However, since the size of this group is so small, only twelve per cent of the group, we combined these students with the second category, "the students with moderate self assessment" to produce Table 3.47 which seems to suggest that the relationship between the two variables, degree of self-confidence and expectation of self-image, is in accordance with Martin's proposition. But these results are doubtful because more students with higher confidence responded that

TABLE 3.47

STUDENTS' EXPECTATION OF HAVING SELF-IMAGE AS DOCTORS
ACCORDING TO SELF-EVALUATION

	Degree of Self-Evaluation	
	Percentage of students	
Expected period	Better than average	About & below average
During first two years in medical school	-	6
During last two years in medical school	38.5	21
During internship and residency	50	71
Haven't given it any thought	12.5	2
Total students	16	34

"they haven't given any thought" to this consideration than
did students with less confidence. In short, whatever the
case, it would seem that the creation of a self-image as a
doctor is associated with the occasions where the student
encounters patients who consider him as a doctor. In fact,
our students have not yet been in contact with patients.

IV. The Image of the Physician

In the section on the image of a physician we
classified various desirable characteristics of an ideal
physician into four categories, attachment to the job,
inherent personal characteristics, ability for research,
and ability to organize. Assuming that each set of char-
acteristics of the ideal physician is not only different in
its importance for first year students as a whole, but also
different in its importance for each individual, we shall
now try to specify which set of characteristics is more
appealing to different students according to their family
background, and their own assessment of their ability.

We choose one characteristic most frequently
checked by students in each category. To make comparisons
rather simple we will leave out the students who have
physicians as relatives since there is little information
about the influence of such a relationship.

As we noted before, the larger the community,

the more likely it is that a student is aware of the extent of medical specialization, while the smaller the community the more familiar the student is with the general practitioner. Is the pattern of students' contact with a physician reflected in his concept of an ideal role model?

Table 3.48 summarizes different responses toward various characteristics drawn from each category. This table indicates that a difference occurs between students from urban and rural communities when they think about "integrity" as a characteristic of a good physician. Fifty per cent of rural students are likely to stress the characteristic "integrity" in making a good physician while only seventeen per cent of urban students do so.

It is, however, interesting to note that this difference between students from two areas tends to disappear at the completion of one year's study in medical school. The difference between the two proportions of students stressing integrity is not significant.

If the students from different areas, rural or urban, have a different pattern of contacts, it is likely that the students from a medical family have more chance to observe a physician at work than other students. How then can the former students form a different image of the physician when compared with the latter?

TABLE 3.48

COMMUNITY BACKGROUND AND THE IMAGE OF DOCTOR

	Community Background			
	Percentage of Students			
	Fall		Spring	
	Urban	Rural	Urban	Rural
Dedication to medicine				
Checked	44	36	22	14
Unchecked	56	64	78	86
Total students	36	14	36	14
		N.S.		N.S.
Integrity				
Checked	17	50	22	42
Unchecked	83	50	78	58
Total students	36	14	36	14
	$\chi^2 = 5.89$ df = 1 $p.<.05$		N.S.	
Ability to think in an organized way				
Checked	19	36	44	22
Unchecked	81	64	56	78
Total students	36	14	36	14
		N.S.		N.S.
Getting real enjoyment out of medicine				
Checked	22	14	25	36
Unchecked	78	86	75	64
Total students	36	14	36	14
		N.S.		N.S.

N.S. - Proportional difference is not statistically

significant at .05 level

As can be seen from Table 3.49 two characteristics,
"integrity," and "getting real enjoyment out of medicine,"
show a remarkable contrast of the image of a physician of
between sons of physicians and non-physicians. Whereas thirty-
three per cent of sons of physicians put emphasis on the
'integrity' in making a good physician, none of the rest of
the students indicated this intention. This difference held
throughout a year.

In contrast with this tendency, a reverse relation
occurred with respect to 'getting real enjoyment out of
medicine." As Table 3.49 further shows, sons of physicians
on entry into medical school are more likely to stress the
importance of 'getting real enjoyment out of medicine' in
making a good physician. But at the end of the first year
this difference is not evident. Consequently, in the spring
only one characteristic, 'integrity' seems to relate to the
influence of a medical family, but none with residential
background.

Our next problem then is to ascertain the factor
which makes students have different images of a physician
in the spring as compared to the fall. Since the slight
relation between the students' image of a physician and the
family background noted in the fall disappeared at the end
of one year's experience in the medical school, our attention
is directed to students' assessment of how well they are

TABLE 3.49

PERCENTAGE OF STUDENTS ACCORDING TO IMAGE OF
DOCTOR AND MEDICAL FAMILY

	Family			
	Fall		Spring	
	Father		Father	
	with M.D.	without M.D.	with M.D.	without M.D.
"Dedication to medicine"				
Checked	50	37.5	20	12.5
Unchecked	50	62.5	80	87.5
Total students	30	8	30	8
		N.S.		N.S.
"Integrity"				
Checked	33	–	37	12.5
Unchecked	67	100	63	87.5
Total students	30	8	30	8
	$\chi^2 = 8.31$		$\chi^2 = 10.01$	
	df = 1 $p<.01$		df = 1 $p<.01$	
"Ability to think in an organized way"				
Checked	23	12.5	40	25
Unchecked	77	87.5	60	75
Total students	30	8	30	8
		N.S.		N.S.
"Getting real enjoyment out of medicine"				
Checked	13	62.5	23	37.5
Unchecked	87	37.5	77	63.5
Total students	30	8	30	8
	$\chi^2 = 7.24$		N.S.	
	df = 1 $p<.01$			

N.S. – Proportional difference is not statistically
significant at .05 level

doing in the class. Table 3.50 indicates the different emphases assigned to different characteristics according to the degree of self-confidence. Each characteristic suggests a consistent direction according to the degree of self-confidence. With regard to 'integrity,' students with higher confidence tend to emphasize it less than do low confident students.

Three other characteristics: 'dedication to medicine,' 'ability to think in an organized way,' 'getting real enjoyment out of medicine,' were more strongly emphasized by students with higher confidence in their ability.

In short, students with less confidence are more likely to stress "inherent personal characteristics" in making a good physician while highly confident students put more emphasis on other characteristics, namely 'attachment to the job and 'ability to do research.'

Summing up our discussion, the image of a good physician held by students changes as they progress through medical school. It was indicated that the role model at the entry of medical school is, to some extent, associated with family background, but at the completion of year's study in medical school, this image of a doctor is more influenced by the students' assessment of their own ability. This is considered to be an outcome of the socialization process.

TABLE 3.50

DEGREE OF SELF-EVALUATION AND IMAGE OF PHYSICIAN

	Degree of Self-Evaluation		
	Percentage of Students		
	better than average	about average	below average
Dedication to medicine			
Checked	25	18	16
Unchecked	75	82	84
Total students	16	28	6
Integrity			
Checked	17.5	29	50
Unchecked	82.5	71	50
Total students	16	28	6
Ability to think in an organized way			
Checked	50	32	33*
Unchecked	50	68	67
Total students	16	28	6
Getting real enjoyment out of medicine			
Checked	31	29	–
Unchecked	69	71	100
Total students	16	28	6

* Difference between this proportion and that of moderate confident students are negligible.

V. Specialization

As an indication of the extent to which the first year medical students think in terms of ultimate specialization, seventy per cent of the students showed a preference for entering a specialty, twenty-two per cent intended to practice general medicine, and the remainder chose research. More than two thirds of our sample can be described as interested in or decided upon a specialized career in medicine for the time being.

To what extent is this choice of a specialized career as dependent variable associated with both independent variables?

It is the contention of Coker and others[79] that there seem to be two sets of factors which play a particularly important role in the decision to specialize. The first has to do with the kinds of economic pressure impinging on the medical student, the second has to do with the kind of community he comes from.

We shall look at economic pressure first as revealed by our data. Our results contained in Table 3.51 show that thirty-one per cent of the least affluent students intend to become general practitioners, fourteen per cent of those of medium affluence have the same intent, and none of those with no financial difficulty stated this intention.[80]

TABLE 3.51

SPECIALTY CHOICE AND ECONOMIC PRESSURE.   SPRING

	Degree of Economic Pressure		
	Difficult	Not difficult	Not at all
Specialty	69	86	100
General Practice	31	14	-
Total students	29	17	3

TABLE 3.52

SPECIALTY CHOICE AND MARITAL STATUS.   SPRING

	Marital Status	
	Single	Married
Specialty	79	66.5
General Practice	21	33.5
Total students	34	12

Proportional difference is not statistically

significant at .05 level.

A similar result was obtained by Coker.[81]

With regard to marital status, Table 3.52 indicates
that the single non-engaged students are more likely to
choose a specialty than the married students although the
difference between the proportion is not considerable.
Financial pressures are also reflected in the career choices
of various age groups. The older medical student feels that
he has less time in which to get established in practice,
and can, therefore, less easily afford the additional years
of training for a specialty.[82]

TABLE 3.53

SPECIALTY CHOICE AND AGE.   SPRING

| | Age | | | |
	17 - 21	22 - 26	27 - 31	32
Specialty	89	71	67	100
General Practice	11	29	33	
Total students	9	28	6	3 46*

* 4 - no answer

In examining the above proposition we find only
eleven per cent of the medical students under twenty years
of age intend to become general practitioners, but the

proportion increases steadily with age until we find thirty-three per cent of those thirty years old choosing general practice. But as Table 3.53 indicates, three students over thirty-one disturb slightly the anticipated tendency.

The second factor that appears to be closely related to career choice is the kind of community from which the medical students come.[83] The larger the community the more likely it is that the student is aware of the extent of medical specialization, the opportunities involved, possibly the greater prestige of the medical career, and so on. Coker and others found that the students from cities of less than 1,000,000 tend to be more likely to choose general practice while only a minority from larger cities expressed the same intention.[84]

Returning to our data concerning this aspect, we find no difference between "big city" and "small city"[85] students, perhaps because our sample of small city students is not large, only twenty-eight per cent. As Table 3.54 indicates the proportion of students who choose specialty and general practice is identical whether they are from rural or urban areas.

Finally, it is interesting to examine the contrast between those students who have at least one parent in the medical profession and those with none. We find that all the students who have a parent with an M.D. intend to become

specialists, whereas twenty-five per cent of the students whose parents are not medical doctors choose general practice. Incidentally, influence of relatives in the medical profession is not reflected in the students' career choice. This relationship is summarized in Table 3.55.

TABLE 3.54

SPECIALTY CHOICE AND COMMUNITY BACKGROUND

	Community Background	
	Urban	Rural
Specialty	77	77
General Practice	23	23
Total students	35	11

TABLE 3.55

SPECIALTY CHOICE AND MEDICAL FAMILY. SPRING

	Family	
	M.D. Parent	Non-M.D. Parent
Specialty	100	75
General Practice	–	25
Total students	6	28

$\chi^2 = 15.4 \quad df = 1 \quad p < .01$

It is obvious from the table that sons of physicians are more likely to choose a specialty.

Rogoff argues that a father with an M.D. does not play an important role in influencing his son's decision.[86] But her argument presents no obstacle to our contention since our case concerns not commitment to medicine, but a specialty choice within medicine after commitment.

It is conceivable that those students with M.D. fathers are likely to be more exposed to the discriminating evaluations concerning the worth of specialty and general practice made within the profession itself.

Within medicine, there is a wide choice of specialties; each of them is not merely a unit of technical work, but a position in a complex system of health institutions. They offer alternative career lines, some of them mutually exclusive from an early stage. These career lines are variously ranked within the profession itself, as well as outside; the people in each of them have their own ethics and sometimes their own system of values concerning many things in medicine.[87]

With regard to the relative rankings of a number of specialty fields, rated by both students and faculty, Reader[88] found that the students' rankings are in very close agreement with comparable rankings made by the faculty.

TABLE 3.56

SPECIALTY CHOICE AND DEGREE OF SELF-EVALUATION

	Degree of Self-Evaluation		
	Percentage of Students		
	better than average	about average	below average
Specialty	85	78	50
General Practice	15	22	50
Total students	13	27	6 (46)

For the purpose of simple comparison, we divide the whole field of medicine into two parts: specialty and general practice. It is then apparent that the existence of a marked hierarchy in the medical profession is an accepted fact. In Reader's listing of the prestige rating of all fields of medicine, we find general practice at the lower end of a twelve point scale, rated ninth by students and tenth by faculty.

The prestige of each specialty within a profession is often based on the degree of technical competence required to perform it. We can, therefore, assume that although in individual cases many reasons may operate, the choice of a job of lower prestige is to a large extent generally

associated with an individual's assessment of his own abilities. It can be argued then, that the higher the degree of self-confidence the more likely the choice of specialty. The data obtained concerning the relationship between self-evaluation and specialty choice which are summarized in Table 3.56 confirm our assumption.

As Table 3.56 indicates, those students with high self-confidence are more inclined to choose a specialty, whereas the students who evaluate themselves below average indicate a preference for general practice. Whereas eighty-five per cent of the students with above average self-assessments and seventy-eight per cent of the students with moderate confidence preferred a specialty, only fifty per cent of the students with low confidence expressed the same preference.

Thus far we have found that the choice of a field or general practice is to a large extent influenced not only by economic pressures and medical family, but also by the degree of self-confidence. The small number of students in our sample do not allow the detailed analysis of the relation between the above variables. Further research is required to ascertain to what extent the specialty choice is influenced by both individual background and self-evaluation of own ability.

VI. Remuneration

Coker and others found in their study of medical students at the University of North Carolina that students from rural areas are likely to have lower income expectation than those from urban. Our data point to a similar result in the fall, but not in the spring.

When in the fall students were asked to specify the incomes they hoped to be receiving at the height of their careers, forty-eight per cent of the urban students expected to earn more than $15,000.00 and twenty-one per cent expected to earn more than $20,000.00. Compared with urban students, rural students had a much lower expectation. Twenty-nine per cent expected to earn more than $15,000.00 and only fourteen per cent hoped to make more than $20,000.00. At the lower end of the expectation scale, thirty-one per cent of the urban students expected to be making less than $10,000.00, whereas at the highest income expectation an equal proportion of students both from rural and urban areas expected to earn more than $20,000.00. We asked the students to estimate the amount of income they expected to earn in a few years after medical school. Table 3.57 summarizes the results obtained.

The difference between the proportion of students responding to the first two categories of income level is too small to be of significance.

TABLE 3.57

EXPECTED INCOME AT THE PEAK OF CAREER
COMMUNITY BACKGROUND

	Community Background			
	Fall		Spring	
Expected Income	Urban	Rural	Urban	Rural
10,000 - 15,000	31	57	46	36
15,000 - 20,000	48	29	26	64
20,000 - 25,000	21	14	28	-
Total Students	35	14*	35	14

	Community Background			
	Fall		Spring	
	Urban	Rural	Urban	Rural
Less than 15,000	31	57	46	36
More than 15,000	69	43	54	64
Total Students	35	14	35	14
	N.S.		N.S.	

	Community Background			
	Urban		Rural	
	Fall	Spring	Fall	Spring
Less than 15,000	31	46	57	36
More than 15,000	69	54	43	64
Total Students	35	14	35	14

$\chi^2 = 4.38$, df = 1
P < .05

$\chi^2 = 8.86$, df = 1
P < .01

* 1 no answer

N.S. Proportional difference is not statistically
significant at .05 level.

The relation between the expected income and
residential origin becomes more unpredictable in the spring.
Table 3.57 further indicates that at both extremes of
expectation of income, high or low, there is a higher pro-
portion of urban than rural students.

At the high extreme of expectation, twenty-eight
per cent of the urban students expected to be making more
than $20,000.00 while none of the urban students expressed
this hope. But more urban students than rural students
expected to earn less than $10,000.00. If we combine the
last two categories of income level, the results as Table 3.57
indicates, appear to be a reversal of those of the fall.
There is no significant difference in the expected income
between rural and urban students. As can be seen from
Table 3.57 the expected income of urban students in the spring
is significantly less than that in the fall, while the expected
income of students from rural areas in the spring is signifi-
cantly greater than that in the fall.

It would seem that students from urban areas have
more confidence, or else higher requirements of income, than
rural students on entry into medical school. But after they
have studied for a year this expectation seems to depend less
on residential background and more on self-evaluation of
performance, a process we can crystalize in the phrase
"self-confidence."

We found no difference between urban and rural students in their expected income in ten years after medical school. It was indicated, however, that the income expectation at the peak of the career appeared to be considerably different between rural and urban students when they were first asked in the fall, but the difference did not remain the same in the spring.

Rosenberg[89] found that the self-confident men are most optimistic about their economic situation in the future. Our data are in accordance with Rosenberg's. With regard to the estimation of the income students expected to earn in ten years after medical school, Table 3.58 indicates that twenty-five per cent of the students with higher confidence expected to earn over $25,000.00 compared with nine per cent of the less confident students. On the other hand, nineteen per cent of the former expected to be earning $10,000.00 to $15,000.00, while thirty-three per cent of the latter had the same expectation.

These findings, as Rosenberg indicated,[90] suggest that the less confident or insecure student tends to be relatively discouraged about his career before he starts. He is less likely to think that his work will really give him what he wants out of it, and he is less likely to feel that he will make much money at his job. But when students were asked again to specify the expected amount of income "at the peak of their career," the different expectations

TABLE 3.58

INCOME EXPECTATION IN TEN YEARS AFTER MEDICAL SCHOOL AND THE
DEGREE OF SELF-EVALUATION.   SPRING

	Better than average	Somewhat better than average	Below average*
$10,000 - 15,000	19	33	
15,000 - 20,000	56	58	
25,000 over	25	9	
Total students	16	33	

* Owing to the small numbers involved we combined these
two categories, students with moderate confidence, and
with lower confidence for purposes of comparison.

established by our data here are not so striking as those of

ten years after graduation. As can be seen from Table 3.59

there is no relationship between the direction of increasing

income level and that of self-evaluation. At the two extremes

of the income expectation we find more students with higher

confidence than students with less confidence.

This tendency might be explained on the assumption

that the phrase "ten years after graduation from medical

school" implies different degrees of professional maturity,

high for those of high confidence, low for those of low

confidence, and that "the peak of career" implies a difference

in the length of time required to reach the peak.

TABLE 3.59

INCOME EXPECTATION AT THE PEAK OF CAREER AND THE DEGREE OF SELF-EVALUATION

	Better than average	Somewhat better than average	Below average*
$15,000 – 20,000	50	39	
20,000 – 25,000	25	42	
25,000 over	25	16	
Total students	16	33	

* Owing to the small numbers involved we combined these two categories, students with moderate confidence and with lower confidence for purposes of comparison.

FOOTNOTES

1 It is reasonable to assume that group members develop through the communicative process, some measure of shared judgments about their abilities which were manifested in the past and likely to be further exhibited in the future. See Rasmussen, G., and Zander, A., "Group Membership and Self-Evaluation," Human Relations, VII, No. 3 (August 1954), pp. 239-251.

2 Festinger, L., Torrey, J., and Willerman, B., "Self-Evaluation as a Function of Attraction to the Group," Human Relations, VII, No. 2 (May 1954), pp. 161-173.

3 Martin, W., "Preferences for Types of Patients," in Merton, op. cit., pp. 129-206.

4 Festinger, Torrey, and Willerman, op. cit., p. 173.

5 We are not completely sure about the actual difference between the student's perception of the term, "completely sure," and of "quite sure." However it is possible to assume that those two terms are perceived by students in a different way with regard to the degree of sureness.

6 Martin, op. cit., p. 203.

7 However, we feel this category too ambiguous. Nothing can be evaluated without having some reference to compare with. As Festinger put it, "If objective means are not available, then people evaluate their opinions and/or abilities by comparison respectively with the opinion and abilities of others." See Festinger, L., "A Theory of Social Comparison Processes," Human Relations, VII, No. 2 (May 1954), pp. 117-140.

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    Knopf, 1957, p. 375.

19 Rosenberg, *op. cit.*, p. 2.

20 This classification of occupational values is mainly
    indebted to Rosenberg. See *Ibid.*, pp. 11-13.

21 Blishen, *op. cit.*, pp. 519-531. For U. S. see
    North, C. E., and Hatt, P. K., "Jobs and Occupation,"
    Opinion News (September 1947), pp. 3-13.

22 See Dominion Bureau of Statistics, *Canada Year Book*,
    1960, p. 1094. For U. S. see, Bureau of Census, 1950,
    United States Census of Population, Bull. pc-1,
    Washington, D. C., Government Printing Office, 1953,
    Table 129, "Detailed Characteristics," pp. 1-279.

23 Schonfield, *op. cit.*, p. 21.

24 Hall, O., "Types of Medical Career," *The American Journal
    of Sociology*, LIV, No. 6 (May 1949), pp. 243-253.

25 Winch, D., and More, E., "Does TAT add Information to Interviews," <u>Journal of Clinical Psychology</u>, XII, No. 4 (October 1956), pp. 316-321, and More, <u>op. cit.</u>, p. 48.

26 Sills, D., "A Sociologist Looks at Motivations," Cohen, N. E., ed., <u>The Citizen Volunteer</u>, New York, Harper and Brothers, 1960, pp. 70-93.

27 Becker, H. S., and Carper, J. W., "The Development of Identification with an Occupation," <u>The American Journal of Sociology</u>, LXI, No. 4 (January 1956), pp. 289-298.

28 Kendall, <u>op. cit.</u>, p. 14.

29 Huntington, M. J., "Development of a Professional Self-Image," in Merton, <u>op. cit.</u>, pp. 179-187.

30 <u>Ibid.</u>, p. 182.

31 <u>Ibid.</u>

32 <u>Ibid.</u>, p. 302.

33 Simpson, I., "Patterns of Socialization into Professions: The Case of Student Nurses," Draft of a paper presented at the annual meeting of the American Sociological Association, New York, August 1960.

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36 Simpson, <u>op. cit.</u>, p. 1.

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39 Foote, N. N., "Identification as the Basis for a Theory of Motivation," <u>American Sociological Review</u>, XVI, No. 1 (February 1951), pp. 14-22.

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43 This presentation of the image, however, may be seen as becoming a little dated. Recent discussion in the media particularly with reference to the A.M.A. socialized medicine issue reveals some hostility to the profession and feeling that there is more dedication to the dollar than to the Hippocratic oath.

44 Thielens, W., Jr., "Some Comparisons of Entrants to Medical and Law School," in Merton, op. cit., pp. 131-152.

45 Schumacher, C. F., "The Image of the Physician: A Study of Applicants to Medical School," Draft presented at the 1960 Annual Meeting of the American Sociological Association.

46 Christie, R., and Merton, R. K., "Procedure for the Sociological Study of the Value Climate of Medical School," in Gee and Glaser, op. cit., pp. 125-153.

47 Ibid., pp. 132-133.

48 Schumacher, op. cit., p. 3.

49 Ibid., p. 5.

50 Only three traits indicate statistically significant difference between the importance both of Fall and Spring at 0.1 level. In fact, this level is not a generally accepted one.

51 The first two traits, however, do not show statistically significant difference in two scores at .05 level.

52 In this sense, the Cornell Scale or other similar scales (for example, five point- scale) should be reconsidered with regard to their validity.

53 Schumacher, op. cit., p. 5.

54 Parker, S., "Personality Factors among Medical Students Related to their Predisposition to View the Patient as a 'Whole Man'," The Journal of Medical Education, XXXIII, No. 10 (October 1958), pp. 736-744. He says:

"It is possible that, as the degree of authoritarianism increases, there is more tendency to regard the physician as a moral and spiritual guide of his patient. On the other hand, those who score low on authoritarianism may be more prone to think of the doctor-patient relationship itself as a therapeutic instrument that serves to either facilitate or hinder treatment of the specific moral problem."

55 Schumacher, op. cit., p. 5. He finds:

"The applicant (medical) has a stronger need to achieve than the average college student, and he feels that achievement motivation is desirable in the physician. Similarly, he has higher need to examine his own motives, to help others, and to keep at a job until finished than the college student, and he ranks each of these needs as desirable in the physician. He feels less willing to obtain help from others or to behave with regard for the opinions of others than the average college student, and he feels that these characteristics are generally undesirable in the physician."

56 In personal conversation with Parsons one physician remarked that in several years of practice only one patient had asked him from what medical school he had graduated. Parsons, op. cit., p. 442.

57 Huntington, M. J., "Sociology of Professions, 1945-55," in Zetterberg, H. L., ed., Sociology in the United States of America, Unesco, 1956, pp. 87-93.

58 Department of National Health and Welfare, Survey of Physicians in Canada, 6th ed., Ottawa, Department of National Health and Welfare, 1955.

59 Graduates of Canadian Medical Schools now total almost 900 a year, the number having been swelled in the spring of 1954 by 54 graduates from the new medical school at U.B.C. Also the number of graduates from both Laval Medical School and from the University of Saskatchewan is increasing.

60 Friedson, E., "Specialties without Roots: The Utilization of New Services," Human Organization, XVIII, No. 3 (Summer 1959), pp. 112-116.

61 Dubin, op. cit., p. 280.

62 In our questionnaire no explicit distinction was made between general (or specialty) practice and research and/or teaching. The basis of the above statement on

our data, however, lies in the assumption that the
student is not prepared to imagine himself teaching
in a certain specialty.

63 Naegele, K. D., "Librarians: Observation on Their Work
    and Their Careers in the Pacific North West," mimeo-
    graphed, p. 22.

64 Cahalan, D., Collette, P., and Hilman, N. A., "Career
    Interests and Expectations of U. S. Medical Students,"
    Journal of Medical Education, XXXII, No. 8 (August 1957),
    pp. 557-563.

65 Ibid., p. 558.

66 Dominion Bureau of Statistics, Canada Year Book, 1960
    Ottawa, Dominion Bureau of Statistics, p. 1094. This
    amount is less than that of the mean gross income of
    all physicians of the United States in 1949 - $14,829.

    For detailed discussion of physician's income, see
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    Physician's Income," Bulletin 84, Bureau of Medical
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67 Cabot, R., Training and Rewards of the Physician,
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69 Cahalan, Collette, and Hilman, op. cit.

70 Funkenstein, D. H., "Implication of Diversity," in
    Gee and Glaser, op. cit., p. 43.

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73 See the section on Motivation.

74 Since the "people-oriented" value, as was indicated
    before, is strongly stressed by most of the students for
    both reasons, entering into, and remaining in medical
    school, this category will be excluded.

75 Hyman, H., "The Value Systems of Different Classes," in
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    Power, A Reader in Social Stratification, Glencoe,
    Free Press, 1953, pp. 426-442.

76 Blishen, op. cit., pp. 519-531.

77 The results ought to be considered cautiously. The
    table seems to show an imposing difference in percentage
    distribution between the two samples. But actual numbers
    involved are so small that conclusions can hardly be
    made definitely. To note one instance, 12.5 per cent
    of the students from medical family indicates only one
    person.

78 Huntington, M. J., "Self-Images and Self-Appraisals of
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79 Coker, R. E., Jr., Miller, N., Back, K. B., and
    Donnelly, D., "The Medical Student, Specialization and
    General Practice," Draft for presentation before the
    First General Session of the 105th Annual Session of
    the Medical Society of the State of North Carolina in
    Asheville, North Carolina, May 1959.

80 If we are concerned only with the numerical data, a
    majority of the least affluent students tend to choose
    specialty practice. This proportion, however, is
    relatively small in comparison with the general tendency
    of the class as a whole i.e. seventy-five per cent for
    specialty, and twenty-five per cent for general practice.

81 Coker and Associates, op. cit.

82 Ibid.

83 Ibid.

84 Ibid.

85 Coker and Associates cut off figure for small towns.
    All B. C. centers fall into the small town category
    according to them but relatively the distinction still
    holds. It is interesting to note that the Canada Year
    Book defines a small town as under 30,000 at 1956 census.
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86 Rogoff, N., "The Decision to Study Medicine," in Merton and Associates, _op. cit._, p. 177.

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CHAPTER IV

SUMMARY

On entrance into their chosen career the students'
experiences in medical school are varied. Annoyed with the
great amount of knowledge which they are required to digest
in a short time they tend to think of the first year as the
least important one for their later career. Besides being
the least important the first year appears to be the most
difficult period in medical training. They also feel pressed
for time; there seems to be too much to learn in the time
allowed. Students, however, expect that as they go through
medical school, their training will become less difficult.
They feel that basically medical school is going to be an
enjoyable experience, even though it will mean very hard
work at times.

The intensive interaction in which they are involved
in medical school and their relative isolation from the out-
side tend to make medical students establish a closer group
among themselves. Thus they tend to help each other to get
through the difficulties they have in common. Although they
are in a cooperative relation with each other, they also
find themselves involved in competition among themselves for

higher status in their academic achievement. Their attitude
toward this competitive situation is not quite favourable.
At best, their perception of competition is that it is an
unavoidable aspect of the training process. This neutral
attitude and an open acceptance of competition among medical
students tend to be salient as the first year comes to an end.

In their relationship with the faculty, students
are more likely to have a greater amount of less formal
contact than they had during their undergraduate years.
Throughout the year students tend to express satisfaction
with their relations with the faculty members by saying that
they are given about the right amount of direction in their
studies.

Students were not yet in a position in their first
year to form any preferential attitude towards patients, the
last aspect of their interpersonal relations in medical
school. Nevertheless a gradual formation of discriminatory
attitudes was observed at the end of the year.

In the assessment of their performance during their
training, a majority of the students classify themselves as
average. They further express strong certainty in the
evaluation they have made. This tendency became apparent
at the end of the year. Students' self-evaluation, however,
does not necessarily coincide with the rank order which
results from the two examinations at Christmas and Easter.

This distortion apparently indicates the lack of consensus
in the standard of excellence for both types of evaluation.
Incidentally, a majority of the students tend to find the
reference point in themselves rather than in their fellow
students, or in the opinion of the faculty members.

With regard to the students' attitudes and values
our study indicated that throughout the first year they tend
to adhere to the initial values which they had on entering
medical school, that is, their "people-orientation." In
addition to this criterion as a common denominator for the
choice of and the stay in medicine, students also tend to
add another "self-expression-orientation." They seem to
adopt this latter orientation as they progress through the
first year, in order to facilitate their continuation in
medical school.

With regard to the students' image of themselves
as doctors, i.e. identification with profession they were
not as yet in a position to consider themselves as doctors.
No student ever expressed this tendency both on entrance and
at the end of the year.

Their image of the physician possesses two aspects
namely desirable attributes, and preferred behaviour. As
the attributes considered most desirable for the ideal
physician the students include integrity, ability to think
in an organized way, and the ability to get along with people.

With regard to the preferred behaviour for the physician
they propose the following: to maintain an air of confidence,
and a restrained and dignified manner. The tendency to
combine these two aspects in their ideal image was maintained
with negligible change throughout their first year.

Consideration of the question of specialization
after their commitment to medicine occupies an important
place in the students' thinking. It is interesting to note
that at the beginning of the year most of the students tend
to choose a specialty rather than general practice. However,
as the year comes to the end they indicate an inclination
towards general practice.

Finally, with regard to remuneration of physician
it is generally agreed among students that the annual net
income of the specialist is considerably higher than that
of the general practitioner. These the first year students'
expectations of their future income generally reflect
fairly accurately the present level of physicians' actual
income. They do not expect to attain the peak of their
career within ten years of graduation from medical school.
Such achievement, they think, lies farther in the remote
future.

Tentative attempts to relate the dependent variable
to both the independent variable (I) and independent
variable (II) make it, to some extent, apparent that at the

completion of the first year, the factors of personal background scarcely affect the dependent variable whereas independent variable (II) represented by the degree of self-evaluation plays a great role.

Suggestion for a Further Research

Thus far we have tried to illustrate our paradigm of adult socialization to the extent that our data are available. And yet we could not fully discuss all the problems imposed by the paradigm due to the lack of detailed and precise data.

Further comprehensive investigations, therefore, should be done in order to provide data for what we failed to discuss in evaluating the effect of each variable during the first year and in ascertaining the relationships between the three types of variables.

This study only serves as a stepping stone by which more intensive studies may possibly be developed.

APPENDIX A

NOTE ON TEST OF SIGNIFICANCE

Since we used a test of significance, a few words should be said with regard to our application of it. We have used such a test only for the following two purposes:

(1) To examine whether there is any significant difference between two proportions (percentages).

(2) To ascertain the relationship between two variables in a fourfold table.

Chi-square test appeared to be the most appropriate test. Appropriate in the sense that it gives criteria by which we can reasonably accept or reject our assumption as to the given data.

The application of this test was avoided for multi-fold tables. The sample is too small for it to be applied properly. Since we have only fifty subjects, distribution of the small sample into more than a fourfold table allows chance factors to be effective. In addition to the small size, our sample was not well controlled. Sometimes a six-fold table based on two variables has a cell with only one case which represents more than ten per cent. Therefore, we tried to find the consistent direction (negative or positive) in the relationship between two variables in the multifold table.

INSTRUCTIONS TO MEDICAL STUDENTS

This questionnaire is designed to find out what you, as a medical student, think about various aspects of medical training and practice. The information which you provide will be helpful in clarifying certain problems of medical education.

We recognize that many of the questions deal with complex issues, and that the check-list alternatives do not always express the subtleties of your opinions. But the purpose of a questionnaire like this one is to obtain an overall picture of the attitudes held by medical students.

There are a few points which you should bear in mind while filling out this questionnaire:

    (1) The questionnaire is not a "test" —there is no "grade" or other mark. The only "right" answers to the questions are those which best express your feelings, your opinions, and your experiences.

    (2) Your individual identity will not be revealed and your personal answers will be kept confidential. The information provided by your class will be tabulated and will be made available to the faculty only in the form of statistical summaries.

    (3) Read every question or statement carefully before answering. Please answer every question in accordance with the directions.

Thank you for your cooperation in this study.

PART A

Medical Students'

Expectations and Advance Knowledge

1. (a) At what age did you first think of becoming a doctor? (Check one)

    ...... Before the age of 10
    ...... Between 10 and 13 years of age
    ...... At 14 or 15 years of age
    ...... At 16 or 17 years of age
    ...... Since the age of 18

    (b) At what age did you definitely decide to study medicine?

    ...... Before the age of 14
    ...... At 14 or 15 years of age
    ...... At 16 or 17 years of age
    ...... Between 18 and 20 years of age
    ...... Since the age of 21

2. Before deciding on medicine, did you ever seriously consider any other occupation or profession? Yes...... No......

    IF YES: Which occupations or professions did you consider? (Check as many as apply)

    ...... Elementary or high school teaching
    ...... College or university teaching (What field?..............)
    ...... Scientific research (What field?...................)
    ...... Engineering, architecture
    ...... Law
    ...... Ministry
    ...... Business
    ...... Other (Which?....................)

3. Which one of the following statements best describes the way you feel about a career in medicine? (Check one)

    ...... It's the only career that could really satisfy me
    ...... It's one of several careers which I could find almost equally satisfying
    ...... It's not the most satisfying career I can think of, everything considered
    ...... A career I decided on without considering whether I would find it the most satisfying

4. (a) How important was each of the following in your decision to enter the medical profession? (Answer for each)

	Very important	Fairly important	Of minor importance	Not at all important
(1) Mother	......	......	......	......
(2) Father	......	......	......	......
(3) Other relatives	......	......	......	......
(4) Friends who are not in medicine	......	......	......	......
(5) Physicians you know personally	......	......	......	......
(6) Physicians you have heard or read about	......	......	......	......
(7) Medical students you know	......	......	......	......
(8) Undergraduate teacher	......	......	......	......
(9) Books, movies or plays (Give titles)..................	......	......	......	......
(10) Other (What?.............. ....)	......	......	......	......

    (b) Which two of these were of most importance in your decision to become a doctor? (List the appropriate numbers) #...... and #......

5. Since you made the decision, how much have the following members of your family encouraged you to become a doctor? (Answer for each)

	Strong encouragement	Slight encouragement	Expressed no opinion	Slight opposition	Strong opposition	Doesn't apply
Mother	......	......	......	......	......	......
Father	......	......	......	......	......	......
Wife or Husband	......	......	......	......	......	......
Brother or Sister	......	......	......	......	......	......
Other relatives	......	......	......	......	......	......

6. Once you made up your mind to become a doctor, did you every have any doubts that this was the right decision for you? (Check one)

...... Yes, serious doubts
...... Yes, slight doubts
...... No, no doubts at all

7. How important has each of the following been in helping you to form a picture of what medical school is like? (Answer for each)

	Very important	Fairly important	Of minor importance	Not at all important
Medical school bulletins	......	......	......	......
Medical students at (your) school	......	......	......	......
Medical students at other schools	......	......	......	......
Members of your family who are doctors	......	......	......	......
Your family physician	......	......	......	......
Other physicians who are friends	......	......	......	......
Medical school faculty	......	......	......	......
College faculty	......	......	......	......
Books, movies, plays (Give titles..	......	......	......	......

....
....

Other (What?......................	......		......	......

....
....

8. All things considered, how do you think medical training compares with each of the following kinds of training? Are medical studies more difficult, less difficult, or about the same? (Answer for each)

	Medical Training Is				
	Much more difficult	Somewhat more difficult than	About the same as	Less difficult than	Don't Know
Studying to be a lawyer	......	......	......	......	......
Studying to be an engineer	......	......	......	......	......
Studying to be a dentist	......	......	......	......	......
Training to be an Army officer	......	......	......	......	......
Studying for a Ph.D in physics	......	......	......	......	......
Studying for a Ph.D in psychology	......	......	......	......	

9. Which of the following statements comes <u>closest</u> to describing the way you feel about medical school? (Check one)

...... Basically, it's going to be a tough, four year grind, but I'll manage to enjoy it somehow

...... Basically, it's going to be an enjoyable experience, even though it will mean very hard work at times

10.   Do you think that, as you move from the first to the fourth year of medical school, your studies will become more difficult for you, less difficult, or do you think they will remain relatively unchanged in this respect? (Check one)

...... Will become more difficult
...... Will become less difficult
...... Will remain about the same
...... Don't know

11. In your opinion, how important is each of the following for a student to get the most out of the first year of medical school? (Answer for each)

	Very important	Fairly important	Of minor importance	Not at all important	Haven't thought about it
Manual dexterity (with instruments, tools, machines, etc.)	.....	.....	.....	.....	.....
Ability to memorize	.....	.....	.....	.....	.....
Ability to cope with theoretical material	.....	.....	.....	.....	.....
Previous knowledge of physical science	.....	.....	.....	.....	.....
Ability to put aside almost everything for your studies	.....	.....	.....	.....	.....
Previous knowledge of social science	.....	.....	.....	.....	.....
Getting along with other students	.....	.....	.....	.....	.....
Ability to remain relaxed, rather than overly tense and nervous about your work	.....	.....	.....	.....	.....
Learning as many medical facts as possible	.....	.....	.....	.....	.....
Making up your own mind about what to emphasize in your studying	.....	.....	.....	.....	.....
Getting along with the medical faculty	.....	.....	.....	.....	.....
Ability to carry out research	.....	.....	.....	.....	.....

12. What is your realistic appraisal of how well you will do in your first year courses compared with the other members of your class? (Check one)

.... I expect to do considerably better than average
.... I expect to do somewhat better than average
.... I expect to be about average
.... I expect to be below average
.... Don't know

13. How difficult do you think each of the following will be for you in your first year of medical school? (Answer for each)

	Very difficult	Fairly difficult	Not very difficult	Not at all difficult
Making friends in your class	.....	.....	.....	.....
Keeping up with other students	.....	.....	.....	.....
Learning what is expected of you	.....	.....	.....	.....
Adjusting to the sights and smells of the anatomy lab	.....	.....	.....	.....
Learning to think for yourself	.....	.....	.....	.....
Getting to know faculty members	.....	.....	.....	.....
Not allowing yourself to become overly tense or nervous about your work	.....	.....	.....	.....

14. (a) How much contact do you expect to have with faculty members during your first year of medical school? (Check one)

...... A great deal
...... A fair amount
...... Only a little
...... Don't know

(b) On the whole, do you expect that your contacts with the medical school faculty during your first year will be more formal, less formal, or about the same as your contacts with your undergraduate professors? (Check one)

...... Contacts in medical school will be <u>more</u> formal
...... They will be <u>less</u> formal
...... They will be <u>about</u> the same
...... Don't know

15. To what extent do you think the first year medical students help each other? (Check one)

...... They try to help each other a great deal
...... They try to help each other a fair amount
...... They try to help each other only a little
...... They do not try to help each other at all

16. When would you <u>like</u> to have your first substantial amount of contact with patients? (Check one)

...... I would like to have my first substantial contact in my first year
...... I would like to have it in my second year
...... I would like to have it in my third year
...... I would like to have it in my fourth year
...... I would like to have it during my interneship
...... Don't know

17. In which year of training do you <u>expect</u> to have your <u>first</u> substantial amount of contact with patients? (Check one)

...... I expect to have my first substantial contact in my first year
...... I expect to have it in my second year
...... I expect to have it in my third year
...... I expect to have it in my fourth year
...... I expect to have it during my interneship
...... Don't know

18. When do you expect that you will <u>first</u> come to think of yourself as a doctor? (Check one)

...... During my first year in medical school
...... During my second year
...... During my third year
...... During my fourth year
...... During my interneship
...... During my residency
...... Haven't given it any thought

19. What things do you think you will like best about being a doctor?
    (Check as many as apply)

...... Being able to deal directly with people
...... Being able to help other people
...... The fact that medicine is a highly respected profession
...... Having interesting and intelligent people for colleagues
...... Doing work involving scientific method and research
...... Being my own boss
...... Being sure of earning a good income
...... The challenging and stimulating nature of the work
...... Other (What?..)

20. (a) In your opinion, how well does each of the following phrases describe the medical profession? (Answer for each)

	Very good description	Fair description	Poor description
(1) A profession which has high standing in the community	.....	.....	.....
(2) A profession of service to the community	.....	.....	.....
(3) A profession which is secure and lucrative	.....	.....	.....
(4) A profession which helps individuals directly	.....	.....	.....
(5) A profession in which real ability is recognized by one's colleagues	.....	.....	.....
(6) A profession requiring harder work than others	.....	.....	.....

        (b) In your opinion, which <u>one</u> of the above phrases <u>best</u> describes the medical profession? (List the appropriate number)......................

PART B

Medical Students'

Experiences and Opinions

I. This Section of the questionnaire deals with your experiences in medical

school and with your feelings about the kind of training a medical student

ought to receive.

1. Many medical students seem to feel that they do not always have enough time
to do all the things they want to. How do you feel in this respect – do you feel
that you have enough time for each of the following activities? (Answer for each)

	Ample time	Just about enough time	Not quite enough time	Not nearly enough time
Learning all that you are expected to know in medical school	.....	.....	.....	.....
Following the latest medical advances in books and journals	.....	.....	.....	.....
Spending time with your family and friends	.....	.....	.....	.....
Following up your own interests in the field of medicine	.....	.....	.....	.....
Reading the newspaper, and keeping up with current affairs	.....	.....	.....	.....

2. Compared to the other students in your class, how hard would you say that
you have worked in your studies during the current semester? (Check one)

...... Considerably harder than average
...... Somewhat harder than average
...... About average
......Somewhat less than average
...... Considerably less than average

3. (a) Which phase of your medical training do you think will be most important
for your later career in medicine? (Check one)

...... First two years of medical school
...... Last two years of medical school
...... Internship
...... Residency
...... Don't know

3 (b) Which phase of your medical training do you expect to find most difficult?
(Check one)

...... First two years of medical school
...... Last two years of medical school
...... Interneship
...... Residency
...... Don't know

4. Everyone knows that medical students are given much more factual information
than they can possibly assimilate. In general, do you think that the faculty
gives medical students enough direction in what to emphasize in their studying?
(Check one)

...... Faculty gives too little direction
...... Faculty gives about the right amount of direction
...... Faculty gives more than enough direction

5. (a) What is your realistic appraisal of how well you are doing in your
courses compared with the other members of your class? (Check one)

...... Considerably better than average
...... Somewhat better than average
...... About average
...... Below average
...... Don't know

(b) How sure are you about how well you are doing? (Check one)

...... Completely sure
...... Quite sure
...... Not sure

(c) Rank the following according to their importance to you in deciding
how well you are doing at the present time. (Rank all three, placing a 1 before
the most important, and so on)

...... Comments of your fellow students
...... Information given you by the faculty
...... Your own personal self-evaluation

6. To what extent are you concerned about how well you are doing in
comparison with the other students in your class? (Check one)

...... Deeply concerned
...... Quite a bit concerned
...... Little concerned
...... Not at all concerned

7. How do you feel about competing with other people, especially when the stakes
are so high? My feeling about competitive situations is that (Check one)

...... I dislike them and prefer to avoid them completely
...... I dislike them somewhat
...... I have neutral feelings about them
...... I enjoy them somewhat
...... I get a kick out of them and sometimes seek them out

8. How much competitiveness have you found among your classmates in medical
school? (Check one)

...... A great deal of competitiveness
...... A fair amount of competitiveness
...... Only a little competitiveness
...... No competitiveness at all

9. Are there some kinds of sick people to whom you feel especially drawn or toward whom you feel particularly sympathetic?   Yes......   No......

IF YES:

(a) Toward which of the following types of patients are you most sympathetic?   (Check as many as apply)
...... Young people
...... People with terminal illnesses
...... People who are "down and out"
...... Articulate people
...... People who are optimistic about their illness
...... People who have clear-cut physical illnesses
...... People who have confidence in the doctor
...... Other (Which?...)

(b) What do you think you should do when you find yourself positively drawn to a patient?   (Check one)
...... I'd try to control these feelings, and regain my sense of
       objectivity
...... I'd take advantage of these feelings to try to draw the patient
       closer to me
...... I wouldn't try to change my feelings at all
...... Other (What?...)

10. Are there some kinds of sick people toward whom you find yourself reacting negatively?   Yes......   No......

IF YES:

Toward which of the following types of patients do you react negatively? (Check as many as apply)

...... Old people
...... People who think they know as much about medicine as the doctor
...... Inarticulate people
...... People who have nothing but psychogenic symptoms
...... People who feel sorry for themselves
...... People who have physiologically improbably symptoms
...... People who make no real effort to get well
...... Other (Which?...)

II. This section deals with the medical profession in general and with standards of medical care.

11. (a) In your opinion, how important is each of the following characteristics in making a good physician? (Answer for each)

	Very important	Fairly important	Of minor importance	Not at all important
(1) Good appearance	.....	.....	.....	.....
(2) Warm and pleasing personality	.....	.....	.....	.....
(3) Dedication to medicine	.....	.....	.....	.....
(4) High intelligence	.....	.....	.....	.....
(5) Skillful management of time	.....	.....	.....	.....
(6) Scientific curiosity	.....	.....	.....	.....
(7) Integrity	.....	.....	.....	.....
(8) Ability to think in an organized way	.....	.....	.....	.....
(9) Research ability	.....	.....	.....	.....
(10) Ability to get along with people	.....	.....	.....	.....
(11) Recognition of own limitations	.....	.....	.....	.....
(12) Getting real enjoyment out of medicine	.....	.....	.....	.....

(b) In your opinion, which two of these characteristics are most important in making a good physician? (List the appropriate numbers)
#........ and #.......

(c) In your opinion, which of these are more important to medicine than to other professions? #........ and #.......

12. How important is each of the following types of social behavior to the success of a physician? (Answer for each)

	Very important	Fairly important	Not at all important
To maintain a restrained and dignified manner	.....	.....	.....
To wear conservative clothing	.....	.....	.....
To participate in community activities	.....	.....	.....
To be a good conversationalist	.....	.....	.....
To have a degree from a top medical school	.....	.....	.....
To maintain an air of confidence (even when he is not feeling confident)	.....	.....	.....

13. The various specialties within the medical profession present different opportunities, and correspond to different sorts of interests and talents among doctors. What is your judgment about the following specialties in the respects listed below? Please indicate to what extent each of the following is a good description of the specialties listed. (If you think the statement is very appropriate to the specialty, please put a 1 on the corresponding line. If you think it is fairly appropriate, please put a 2. If you think it is not very appropriate, please put a 3. If you think it is inappropriate, please put a 4.)

(Please put a number for each specialty on every statement.)

	Sur-gery	Medi-cine	Psy-chiatry	Paedi-atrics	Ob.-Gyn.	General Practice
A field where one can establish his own hours of work	.....	.....	.....	.....	.....	.....
A field in which patients are highly appreciative of what is done for them	.....	.....	.....	.....	.....	.....
A field where diag-nostic problems are especially challenging	.....	.....	.....	.....	.....	.....
A field where rela-tionships with col-leagues in the same specialty are par-ticularly enjoyable	.....	.....	.....	.....	.....	.....
A field which is very likely to yield a good income	.....	.....	.....	.....	.....	.....
A field which presents opportunities for knowing patients well	.....	.....	.....	.....	.....	.....
A field which has high prestige within the medical profession	.....	.....	.....	.....	.....	.....

14. In which one of the following categories would you say that the average yearly income of the specialist and of the general practitioner fall? (Check one in each group)

Specialist	General Practitioner
..... Under $5,000	..... Under $5,000
..... $ 5,000 up to $10,000	..... $ 5,000 up to $10,000
..... $10,000 up to $15,000	..... $10,000 up to $15,000
..... $15,000 up to $20,000	..... $15,000 up to $20,000
..... $20,000 up to $25,000	..... $20,000 up to $25,000
..... $25,000 up to $35,000	..... $25,000 up to $35,000

III. This section deals with your professional plans and ambitions for the future. Even though you may not be certain of your plans, please answer the questions on the basis of your present hopes or preferences.

15. How much have you thought about the kind of medical career you would like to have? (Check one)

      ..... A great deal
      ..... A fair amount
      ..... Only a little
      ..... Not at all

16. Which of the following fields of medicine would you <u>least</u> like to enter?
           1st choice............ 2nd choice.............
Which of the following fields of medicine would you <u>like</u> to enter?
           1st choice............ 2nd choice.............

      Medicine
      Surgery
      Obstetrics and Gynaecology
      Paediatrics
      Pathology
      Psychiatry
      Orthopaedics
      Dermatology
      Ear, nose and throat
      Public Health
      General Practice
      Research
      Other (What?......................................)

17. If you could arrange it, in which one of the following situations would you plan to carry out the professional activity you said you prefer most? (Check one)

      ..... Own professional office with hospital affiliation
      ..... Own professional office without hospital affiliation
      ..... Large private clinic or hospital
      ..... Small group clinic
      ..... Medical school
      ..... Other (What?......................................)

(a) For the student who does exceptionally well in medical school, how would you rank the following five career plans in order of their desirability? (Rank all five, placing a 1 before the most desirable, and so on)

      ..... Residency, followed by general practice
      ..... Advanced training, followed by a research career
      ..... Residency, followed by specialty practice
      ..... No residency, followed by general practice
      ..... Advanced training, followed by full-time teaching in
           medical school

17. (Cont'd)

(b) How do you think the faculty as a whole would rate these career plans for the student who does exceptionally well? (Rank all five)

..... Residency, followed by general practice
..... Advanced training, followed by a research career
..... Residency, followed by specialty practice
..... No residency, followed by general practice
..... Advanced training, followed by full-time teaching in a
medical school

18. What yearly income do you think you might realistically expect

(a) Ten years after medical school? (Check one)

..... Under $5,000
..... $ 5,000 up to $10,000
..... $10,000 up to $15,000
..... $15,000 up to $20,000
..... $20,000 up to $25,000
..... $25,000 or over

(b) At the peak of your career? (Check one)

..... Under $5,000
..... $ 5,000 up to $10,000
..... $10,000 up to $15,000
..... $15,000 up to $20,000
..... $20,000 up to $25,000
..... $25,000 or over

How satisfied will you be with the yearly income you think you might realistically expect

(c) Ten years after medical school? (Check one)

..... Very satisfied
..... Fairly satisfied
..... Dissatisfied

(d) At the peak of your career? (Check one)

..... Very satisfied
..... Fairly satisfied
..... Dissatisfied

19. To what extent have you worried that you may not be able to have the kind of medical career you want? (Check one)

..... A great deal
..... A fair amount
..... Only a little
..... Not at all

20. Once you have received a licence to practice medicine, to what extent do you expect to continue your medical education by each of the following routes? (Answer for each)

	Regularly	Occa-sionally	Never	Unsure
Reading medical journals	.....	.....	.....	.....
Reading medical textbooks	.....	.....	.....	.....
Attending local medical society meetings	.....	.....	.....	.....
Supplementing your practice with research activities	.....	.....	.....	.....
Teaching full-time in a medical school	.....	.....	.....	.....
Teaching part-time in a medical school	.....	.....	.....	.....
Serving in an out-patient clinic	.....	.....	.....	.....
Taking post-graduate and summer specialty courses	.....	.....	.....	.....
Examination of publications of pharmaceutical houses	.....	.....	.....	.....
By contacts with consultants on your cases	.....	.....	.....	.....

21. Below are some considerations that might enter into your selection of a specialty or of general practice in medicine. Which two are most important to you as you think about your career? Which two are least important? (Check two in each column)

	Most important	Least important
Having the opportunity to know your patients well	.....	.....
Being able to establish your own hours of work	.....	.....
Meeting diagnostic problems that are particularly challenging	.....	.....
Having enjoyable relationships with colleagues	.....	.....
Making a good income	.....	.....
Having patients who will appreciate your efforts	.....	.....
Having prestige within the medical profession	.....	.....

IV This final section deals with your background and your interests. The information you provide here will permit a comparison of the opinions, plans, and experiences of students with different kinds of backgrounds.

22. Exact Date of Birth: Month........ Day........ Year.........

23. Sex: Male,........ Female..........

24. Marital status:

.....Single
.....Married
.....Engaged
.....Divorced, separated, widowed
If engaged: When do you plan to marry?

25. If married: (a) How long have you been married? ...... Years

                 (b) How many children do you have? ....

26. How much have you worried that you might not be happy in a medical career?
    (Check one)

         ..... A great deal
         ..... Somewhat
         ..... Only a little
         ..... Not at all

27.   How difficult is it for you to finance your medical education?
         (Check one)

         ..... Very difficult
         ..... Fairly difficult
         ..... Not very difficult
         ..... Not at all difficult

28. (For students who depend on parents for some or all of their support)
    How do your parents feel about having you depend on them for financial
    aid while you are in medical school? (Check one)

         ..... They are not happy about it
         ..... They are willing, although it is difficult for them
         ..... They are willing to do it
         ..... They are very glad to do it
         ..... Other (What?...)

29. How much have you worried about the problems of supporting yourself (and
your family): (Check one)

    (a) While you are in medical school?
         ..... A great deal
         ..... Quite a bit
         ..... Not very much
         ..... Not at all

    (b) During your interneship? (Check one)

         ..... A great deal
         ..... Quite a bit
         ..... Not very much
         ..... Not at all

    (c) During your residency? (Check one)
         ..... A great deal
         ..... Quite a bit
         ..... Not very much
         ..... Not at all
         ..... Do not plan to take residency

    (d) During your early years in practice? (Check one)
         ..... A great deal
         ..... Quite a bit
         ..... Not very much
         ..... Not at all

30. Have you had a job for pay during the <u>current</u> semester? Yes.... No.....

   IF YES: On the average, how many hours a week have you worked?
   (Check one)

   ..... 10 or less
   11-20
   21-30
   ..... 31 or more

31. During the coming summer, do you plan to work (Check one)

   ..... full-time
   ..... part-time
   ..... not at all

   If "FULL-TIME" or "PART-TIME":
   Is this work related to medicine? Yes........ No........

   Will you get paid for this work? Yes........ No........

32. What are your favorite leisure time activities? (Check 2 or 3 favorites)

   ..... Going to the movies
   ..... Reading serious books and magazines
   ..... Listening to music
   ..... Attending sports events as a spectator
   ..... Participating in sports events
   ..... Going out on dates
   ..... Talking with friends
   ..... Working at special hobbies (What?...........................)
   ..... Other (What?............................)

33. What is your father's occupation? (If retired or deceased, list previous
   occupation) ....

34. Name the city, province or state and country in which you lived longest
   before going to college.

   . . . .

35. What undergraduate college did you attend?

   . . . .

36. (a) In what field did you major as an undergraduate?

   . . . .

   (b) If you had it to do over again in what would you major in
   undergraduate college?

   . . . .

37. Do you have any relatives who are in any of the following professions?

	No	Parents	Siblings	Other relatives
M.D.'s?	......	......	......	......
Lawyers?	......	......	......	......
Dentists?	......	......	......	......
Clergymen?	......	......	......	......
Teachers?	......	......	......	......
Nurses?	......	......	......	......
Engineers?	......	......	......	......
Other professionals?	......	......	......	......
(What?................)	......	......	......	......

Name: . . . .

        First   Surname

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