This paper is the report of a research project that focused on the professional socialization of dental students in the context of interaction with faculty, other students, the structured curriculum, and patients. Four sets of questions regarding the advantages of dentistry, the disadvantages of dentistry, the characteristics of the dental profession, and the characteristics of a good dentist were issued to the dental students 3 times in a year and once to their professors. By comparing student median response categories with the faculty median, the extent of professionalism of the students was obtained. The results show that student opinion coincided with faculty belief on only one question in the set dealing with the advantages of dentistry. For the set dealing with the disadvantages, however, student and faculty response were in total agreement as was the result of the set of questions regarding the characteristics of the dental profession. The final set of questions about the characteristics of a good dentist found the students and faculty to be in almost total agreement. From these results, it would appear that the significant factors involved in the acquisition of beliefs about the profession are related to experiences prior to entrance into dental school. (Author/HS)
STUDENT AND FACULTY VIEWS OF AN OCCUPATION:
A STUDY OF CHANGING STUDENT PERCEPTIONS OF DENTISTRY

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INTRODUCTION

This paper is a report of a research project begun in July, 1969, and an analysis of some of the preliminary data. The site of the project was the School of Dentistry of the Medical College of Georgia in Augusta, a newly established dental school which accepted the initial class of students in September, 1969.*

Since this study was focused upon a new dental school which was attempting to establish innovative programs, it was believed that a comprehensive methodological approach was demanded. An ethnomethodological perspective was suggested, to be combined with structured traditional techniques. Patient contact the first year, Bio-clinical seminars, the lack of any student organization at the beginning and the small number of students were all factors to be consid-

*The research reported in this paper began as a cooperative effort of the Department of Sociology at the University of Georgia and the School of Dentistry of the Medical College of Georgia, funded in part by the American Council for Dental Education.
Unstructured observations, semi-structured interviews, extensively structured questionnaires, structured interviews and group discussions were some of the methodological techniques employed.

The focus of the project was the professional socialization of the dental students in the context of interaction with the faculty, other students, the structured curriculum and patients. Professionalization was seen from a broad perspective to involve the acquisition of beliefs, attitudes and behavior that were considered appropriate for a dentist as a professional man.

CONCEPTUAL FOCUS

This paper will deal with only one aspect of the total focus of the study. The primary concern will be the professionalization of the student in terms of the acquisition of beliefs about the profession.

Professionalization has traditionally been defined in two different ways. First, it is seen as the evolution of an occupation into a profession. (Vollmer and Mills, 1966; Wilensky, 1964). This definition is concerned with how and why certain occupational groups develop characteristics which classify them as professions. The second definition emphasizes the socialization of a person into a professional man. This focuses on the development of an ideology, motives and behavior patterns by individuals which are seen as appropriate for a professional. This second definition is used in this paper. The focus is a bit narrower than this, however. The data included are considered to be indications of the beliefs of dental students and the dental faculty about the profession.

In the past, several studies in professional training settings have suggested the occurrence of different phenomena.
In their study of graduate school departments, Becker and Carper noted a change in the orientations of students in three disciplines towards their occupation at various times in their academic careers. Merton, in the *Student Physician* (1957), noted the development of a professional identity developed by student physicians influenced by the faculty, other students and patients. In another study, however, Becker, et al. (1961) disagreed noting, in *Boys in White*, the development of a professional identity was not the essential process but rather the taking of the student role. Quarrentelli (1961) in his study of dental students over a four year period at Ohio State University noted a change in students' beliefs about the profession away from the faculty perspective, with reference to an extensive intraclass and interclass student subculture.

One of the purposes of this study was to test the validity of one of these perspectives. The data to be analyzed here refer to the beliefs of students about the profession as compared to the faculty orientations, and to changes in the students' perspectives, if any, that may have occurred during the first year of their dental education. The students, following the perspective of Everett Hughes, were conceptualized as holding undifferentiated views of the profession upon entering the school. It was hypothesized that their conceptions would begin to change to differentiated views during the academic year. In addition, it was hypothesized that students would have views different from those held by the faculty at the beginning of the year and would change to the faculty perspective during this period.

**METHODOLOGY**

Four sets of questions concerned with various aspects of dentistry were used. These questions were taken from the
Quarrentelli study at Ohio State (1961). Due to the uniqueness of a first year situation for the initial class, comparability and generalizability of the results may be limited. This would not likely be so true in the subsequent years of the school's history.

In order to evaluate the professional beliefs of the students and the change that might occur during the first year of professional training some standard was needed. The faculty positions, as indicated by responses to items making up a set of questions concerned with each aspect of dentistry, were used as an indicator of appropriate beliefs that were acceptable to professionals. The faculty orientations to which the students were to be exposed during the year were used as the comparative standard of professionalism. Faculty members are seen as established professionals in dentistry, as well as the primary role models in the professionalization process in dental school.

The professional beliefs of the students and faculty were tapped, using four sets of questions that had been used in the Ohio State study. These focused upon the advantages of dentistry, the disadvantages of dentistry, the characteristics of a good dentist and the characteristics of the dental profession. The questions were taken from identical questionnaires administered to the students on three different occasions during their first year. The information was obtained in September, 1969 and January and May, 1970. The same questions were asked of the faculty in February, 1970. By comparing the responses of the students at three separate intervals with the faculty responses, some conception of the degree of professionalism of the students can be obtained, as well as changes during the year. The median responses for the faculty and students were used as data for comparison. For each set of questions a median was calculated and the response patterns of students were compared with those of the faculty. Changes in the students' responses were indicated
by shifts in the median response category for any item during the year. Changes toward or away from the faculty position will be indicated by one or more median shifts in student responses toward or away from the faculty position. In terms of differentiated and undifferentiated views of the profession, students and faculty were determined to have undifferentiated views if half or more of the items in any one group were represented by the same median category.

RESULTS

By comparing student median response categories with the faculty median, the extent of professionalism of the students can be obtained. By noting the change in the median responses from one test period to another, it is possible to note modifications in the beliefs of students during the first year. The data will then show the extent of agreement and disagreement with the faculty and movement toward and away from the faculty positions.

The first set of items were concerned with the favorable consequences of becoming a dentist. The students and faculty were asked to respond to fourteen different consequences by checking four possible response categories ranging from very important to hardly important at all. (Figure 1, Table 1). Medians were calculated for each item on the questionnaires of the students and faculty.

The student median was the same as the faculty on only one question for each of three administrations. On three items the student responses deviated from the faculty position on the first administration and remained the same on the subsequent questionnaires. In three instances the student responses were discrepant from the faculty median on the first testing period and subsequently changed to the faculty position later in the year. The median student responses on five questions represent shifts away from the
faculty position. For two questions there was mixed change during the year, but each represented a deviation from the faculty beginning with the first administration and continuing throughout the year.

From this data it can be seen that the beliefs of the students changed during the first year of dental school, three of the changes being to the faculty position and five away from their position. In general then, the total student responses for this set can be viewed as deviating from those of the faculty as evidenced by the fact that for nearly three-fourths of the items the student medians varied from those of the faculty.

Another set of questions focused on the disadvantages of becoming a dentist. Fourteen items that could be considered as possible disadvantages were presented to the students and faculty. (Figure 1). From the data presented in Table 2 it can be seen that the responses were for the most part constant for the three test administrations. For eleven of the items the student median response was constant from the first administration to the third. Not only were they unchanged, but they were consistent with the faculty responses. In two cases, the student responses deviated from the faculty positions on the first administration whereas on the last administration they were the same as the faculty median. For one item the pattern was one of mixed change from agreement on the first testing period to disagreement on the second but with agreement on the third.

For this set of questions the student responses can be seen to be in total agreement with the faculty. It was also noted that student responses were consistent for all three administrations with the exception of three incidents of change from the first to the last testing period.

The third group of questions concerning the profession focused on the characteristics of dentistry. Ten different descriptive phrases were presented to which the students
and faculty were to respond by checking one of four possible categories ranging from "an excellent description of how I view it." (Figure 1). These data are presented in Table 3. As can be seen from inspection of this table the beliefs of the students changed only slightly during the year. On seven items the student median responses were the same as the faculty on the first administration and remained the same on the subsequent administrations. On two items the students deviated from the faculty on the first administration but agreed with the faculty on the third. One item represents an example of mixed change where the student median was the same as the faculty on the first, deviated on the second and agreed with the faculty on the third. For this group of questions the students are represented as agreeing with the faculty on all items by the last administration with only three instances of deviation and change.

The final set of questions about the profession focused upon characteristics believed to be important in order to be considered a good dentist. Sixteen statements were presented as characteristics of good dentists, to which students and faculty were to respond. (Figure 1). As can be seen from an investigation of Table 4 of the fifteen items used, the student beliefs were in agreement with the faculty on fourteen occasions, beginning with the first administration and they remained in agreement during the year. In only one instance was there any deviation and change. For one item the dental students deviated from the faculty on the second and third administrations after agreeing with them on the first.

As an indication of the differentiation of students and faculty responses, the items for each set of questions were rank-ordered as to degree of agreement and disagreement with each item. The items for each response category were then arranged by frequencies. If student and faculty have differentiated views of the profession, no median response category
should represent one-half or more of the questions. This would mean that students and faculty members would be selecting items over the entire range of categories.

For the set of questions focusing on the characteristics of a good dentist, one median category for the student and faculty represented more than half of the items. The category of "very important" was the median category for 9, 10, and 11 items on the three student administrations. This same median category was selected by the faculty for 10 items.

The set of questions focusing on the disadvantages of becoming a dentist represents similar results. On the student and faculty administrations one median category represented the responses for more than half of the items. On the first and second administration to the students, a median of 4.0 accounted for eight of the items. On the third administration a median of 3.0 was representative of seven items. For the faculty eight items were represented by a median of 2.0.

For these two sets of questions the student and faculty responses were undifferentiated. The student responses were undifferentiated at the beginning of the year and remained so throughout the year. The other two groups of questions display a different and unexpected pattern.

The group of questions dealing with the favorable aspects of becoming a dentist displayed a change pattern. The student responses for the first administration were differentiated with no median category representing half or more of the items. On the second administration the students' responses were undifferentiated, with two medians 1.0 and 2.0 representing half of the items. On the third testing period a median of 2.0 represented eight of the fourteen items. The faculty responses were undifferentiated, also. A median of 2.0 was indicated in seven of the items.
The group of items concerned with the characteristics of dentistry was similar to the above set. The first set of student responses was differentiated since no median category accounted for half or more of the items. On the second student administration the median of 2.0 accounted for five of the ten items. The same category represented five items on the third administration also. The same category and number of items was identical for the faculty.

For this aspect of socialization the dental students were in agreement with the faculty on two occasions from the beginning. On two other sets of questions the students changed to the faculty pattern by the second test period. In all cases this represents undifferentiated views of the profession by student and faculty.

CONCLUSIONS

The development of a professional orientation by students in the process of becoming professional men has always been of interest to those involved in educating them. The acquisition of beliefs deemed appropriate by established professionals has been, in part, an essential for acceptance of the new recruit and graduate. Acceptable ideas have often been formalized in the codes of conduct of certain occupational groups, most notably medicine. There are, also, legal limitations on behavior which must be considered. Informally agreed upon sets of ideas have frequently been incorporated into professional ideologies. These conceptualizations of the professional may at times be inconsistent, as articulated by various professionals and professional organizations.

The job of socializing new recruits as to the acceptable beliefs has not always been a systematic process in professional schools. In the field of dentistry, the process has been for the most part informal, accidental and involving
The only attempt at formal socialization into the profession has normally been accomplished by means of a course focusing on a brief history of dentistry, the legal restrictions placed on practice, and the regulations imposed by local, state, and national dental associations.

Much of the socialization, when it occurs, is related to informal contacts between dental students and faculty members—more specifically between students and those faculty members who feel that this type of socialization is important, particularly when this involves the ethics of the profession. In our conversations with faculty members during the first year of this project there was a rather large segment holding the view that students would not change significantly during the period of their enrollment in dental school and that it was a waste of time and resources to engage in any significant attempt to change them. A small number believed that the development of a professional "self", especially related to professional ethics, is a proper and essential part of the dental school program.

The preliminary data presented appears to give some verification to the first view that students enter with professional beliefs which remain relatively constant. Students, at least in terms of beliefs about the profession, hold views similar to those held by the faculty. In those few instances where deviation was evident in the first testing period, it became apparent from subsequent responses that student beliefs, for the most part, tended to converge with those of the faculty.

It would appear that the significant factors involved in the acquisition of beliefs about the profession are related to experiences prior to entrance into dental school. Even though this paper does not focus directly on this aspect of professionalization, indications of possible relevant factors were obtained from our investigations that might be used as explanations for the relatively high degree of professionalism.
of the incoming students. One factor relates to the time at which a definite decision to become a dentist was made. For the great majority of the class of students studied, this decision was made in high school or the first two years of college. Another factor that appears to be important is the influence that the family dentist had on the decision to enter dentistry. He was the single most influential person as reported by the students. Thus, contact with a family dentist and the early decision to enter the profession appear to indicate that these students had been thinking about the profession and acquiring information about it from professionals for a considerable period of time before entry into dental school. A third factor that could be of significance is the visibility and prestige of the profession. Dentistry has been an established profession for many years and the emphasis on dental care has increasingly become part of the strong health maintenance ideology of this society. Dentistry has also been generally recognized as a prestige occupation, which would lead to inquiries as to the nature of the profession. Therefore, more is known by the general public about the profession from the attention it receives vis a vis certain other occupations in the society.

The early decision to enter the profession, the influence of the family dentist and the visibility of the profession are suggested as possible factors related to the high degree of professionalism displayed by the students at this particular school. Further research at other schools would have to be conducted before the generalizability of these perspectives would be determined.

In terms of the undifferentiated or differentiated nature of student beliefs, the most important factors would appear to involve experiences prior to entering the dental school, as well as experiences during the first year. From our investigation it was tentatively assumed that contact with dentist prior to entering dental school partially accounted
for the undifferentiated beliefs held upon entering. The change to undifferentiated beliefs during the year was tenta-
tively assumed to involve contacts with the faculty. It was suggested from our conversations with students that the contact with the faculty involved, for the most part, in-
formal relationships outside of the classroom.

From the data and analysis presented here, a tentative conclusion would be that neither the conclusions of Merton in the Student Physician nor Becker in Boys in White are appropriate in this situation. The analysis provided by Becker and Carper is also not applicable for this school. The conclusion of Quarrentelli in terms of shifts away from faculty positions is only partly validated in this study. The assumption of Everett Hughes that persons enter the socialization process with undifferentiated views of a profession which are replaced with differentiated views is not supported by this preliminary data.

In the course of the investigation, it became evident that various traditional conceptualizations of the terms "professionalization," "professionalism," and "professions" were somewhat less than useful for this study. Even having used the term "professionalization" in the narrow context employed in this paper, it became apparent that when the terms "profes-
sions" and "professionalism" were employed they provided one with no useful conceptual perspectives. The concept of pro-
fessions as a means of classifying some occupations tells us little or nothing that would allow for comparison of occupa-
tional groups. Even the sacrosant profession of medicine is so segmented today that little similarity exists between types of physicians. Dentistry provides a similar picture.

If we decide against the use of this term, which is suggested until some reformulations can be developed, the concept of professionalism must also be discarded since it loses its meaning by definition. It is suggested that we discard the term professionalization for the same reason.
Do we need more than an idea of the socialization process as it related to various occupational categories? If this is to be the case, however, the various occupational categories must be articulated so as to represent the segmentation and diversification that has occurred within the occupational structure of this society. By viewing an occupational category from the perspective of those persons in the occupation a more realistic understanding of the process and content of the socialization process can be obtained. One other conceptualization suggested from the experiences during this project appears to be significant. That is that a sequential linear view of occupational socialization is unrealistic. Persons become involved in the process through several avenues and develop in various ways with different patterns of steps following in different sequences.

These ideas are not original but it appears that they have not been given serious consideration by many as indicated by the continued use of the traditional terms and conceptions. How can we begin to develop even a tentatively integrated theory in the area of occupations if we cannot be assured that we are talking about the same phenomena?
### TABLE 1

Favorable Consequences of Becoming a Dentist

<table>
<thead>
<tr>
<th>Testing Periods</th>
<th>Number of Items in Agreement with the Faculty</th>
<th>Number of Items Deviating from the Faculty</th>
<th>Number of Items Changing to Faculty Position</th>
<th>Number of Items Changing from the Faculty Position</th>
<th>Mixed Change Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\frac{1}{6}$</td>
<td>$\frac{2}{1}$</td>
<td>$\frac{3}{1}$</td>
<td>$\frac{1}{12}$</td>
<td>$\frac{2}{11}$</td>
</tr>
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</table>

Total Number of Items
N=23

### TABLE 2

Disadvantages of Becoming a Dentist

<table>
<thead>
<tr>
<th>Testing Periods</th>
<th>Number of Items in Agreement with the Faculty</th>
<th>Number of Items Deviating from the Faculty</th>
<th>Number of Items Changing to Faculty Position</th>
<th>Number of Items Changing from the Faculty Position</th>
<th>Mixed Change Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\frac{1}{12}$</td>
<td>$\frac{2}{11}$</td>
<td>$\frac{3}{11}$</td>
<td>$\frac{3}{11}$</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Number of Items
N=23

N=23
TABLE 3
Characteristics of Dentistry

<table>
<thead>
<tr>
<th>Testing Periods</th>
<th>Testing Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Items in Agreement with the Faculty</td>
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</tr>
<tr>
<td>Number of Items Deviating from the Faculty</td>
<td>2 2</td>
</tr>
<tr>
<td>Number of Items Changing to Faculty Position</td>
<td>3</td>
</tr>
<tr>
<td>Number of Items Changing from the Faculty Position</td>
<td></td>
</tr>
<tr>
<td>Mixed Change Items</td>
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</tr>
<tr>
<td>Total Number of Items</td>
<td>10</td>
</tr>
</tbody>
</table>

N=23

TABLE 4
Characteristics of a Good Dentist

<table>
<thead>
<tr>
<th>Testing Periods</th>
<th>Testing Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Items in Agreement with the Faculty</td>
<td>1/15 2/14 3/14</td>
</tr>
<tr>
<td>Number of Items Deviating from the Faculty</td>
<td></td>
</tr>
<tr>
<td>Number of Items Changing to Faculty Position</td>
<td></td>
</tr>
<tr>
<td>Number of Items Changing from the Faculty Position</td>
<td>1 1</td>
</tr>
<tr>
<td>Mixed Change Items</td>
<td></td>
</tr>
<tr>
<td>Total Number of Items</td>
<td>15</td>
</tr>
</tbody>
</table>

N=23
FIGURE 1

Items Contained in the Student and Faculty Questionnaires

Professionalism Questions

How well do you personally think the following phrases describe the dental profession as you now see it.

1. Providing a vital service for any community
2. Which is secure and lucrative
3. Requiring higher intelligence than most other professions
4. Where fees are disproportionately high for usual services given
5. Which is a specialty of medicine
6. Where obtaining of the services is in most instances a painful process
7. With high ethical standards
8. In which the skills required are not too complex or difficult to learn
9. Having higher prestige than all other professions but medicine
10. Requiring considerably more difficult training than most other professions

In your opinion, which of the following characteristics are important to have to be a good dentist?

1. Dignified appearance and mannerisms
2. Good business sense
3. Ability to handle people
4. Scientific curiosity
5. High ethical standards
6. Recognition of own limitations
7. Good manual dexterity
8. Outgoing and extroverted personality
9. High intellectual ability
10. Emotional stability
11. Good technical skills
12. Strong dedication to dentistry
13. Skillful management of time
14. Good research ability
15. Getting real enjoyment out of dentistry

Following are some of what are usually thought of as favorable consequences of becoming a dentist. How personally important to you is each one of them?

1. Having prestige in the local community
2. Being able to deal directly with people rather than just things
3. Engaging in work which involves scientific knowledge and research
4. Being in work where you can often develop warm personal relationships with patients and have them look up to you as a counselor
5. Having a chance to utilize one's manual dexterity
6. Dealing at times with very complex and challenging dental problems
7. Doing work in which professional mistakes do not usually result in drastic consequences
8. Engaging in activities which allow a high degree of work organization and routine
9. Having the chance to help people
10. Doing work which in some of its technical aspects allows a degree of creative or artistic expression
11. Having the security of a lifetime job from which one cannot get fired

12. Having freedom from supervision and great scope for independent decisions

13. Being able to attain a considerably better than average income

14. Having attractive working conditions such as pleasant, clean office surroundings and a flexible work schedule

Below are some things that have been suggested as possible disadvantages or unfavorable aspects of being a dentist. Indicate the extent you agree or disagree that they are disadvantages.

1. The potential hazards to health involved

2. The heavy cost of initial investment in setting up the practice

3. The working alone without colleagues

4. The lack of appreciation by patients of the non-mechanical skills of the dentist

5. The working in a "dirty part" of the body

6. The physically demanding hard work involved in standing for a long time, etc.

7. The impossibility of attaining a tremendous income as in some other fields

8. The absence of variety and the repetitious nature of the work of the general practitioner

9. The necessity of working around blood

10. The working with people rather than just physical objects

11. The having to inject needles into people

12. The lack of opportunity to make a contribution to basic knowledge

13. The fact that the total responsibility for the work done is solely that of the dentist himself
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