

McGILL UNIVERSITY
SCHOOL OF PHYSICAL AND OCCUPATIONAL THERAPY

THE INTERVIEW
USED IN
THE SELECTION OF
PHYSICAL THERAPY STUDENTS

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CHAPTER I

INTRODUCTION

During the last thirty years the number of physical therapy schools established in universities in Canada has increased from two in 1945 to twelve in 1975, and a comparable increase has occurred in the United States. There has also been a significant increase in the number of applicants to all schools of physical therapy to a present ratio of seven applicants to each place offered. In spite of these increases there is still a shortage of well-qualified physical therapists, and this has placed an added responsibility on the universities to select the best possible candidates from the large pool of applicants. To choose only those candidates with the greatest potential to finish their training, is to ensure that only high quality physical therapists will graduate to meet the health care delivery needs of to-day.

Inquiries have been made of university schools of physical therapy in the United States and Canada concerning the preferred selection methods used to deal with the large number of applicants. Academic excellence, intelligence tests, psychological tests, and reference letters have all been tried with varying degrees of success. The interview has also been used by many schools, but no method has been found to satisfy all and to resolve the selection problem. A search of the literature has revealed little information concerning

the selection of physical therapy students, and almost none relating to the use of the interview in this way. This situation has emphasized the need for a research project to establish the value of the interview to relate the selection of physical therapy students with their performance during the training programme.

Dissatisfied with the method of using academic grades only, the school of Physical Therapy at the University of Toronto decided to use the interview in the admissions process in 1973, and to compare the performance of students selected by this method with those of previous years. The objectivity of high school academic grades was seriously questioned. Since the provincial departmental Grade XIII examinations have been discontinued in Ontario, individual high schools have used their own examinations for their students, and now there is no common standard for comparison of high school grades as entrance requirements to university programmes. By selecting only those candidates with top-ranking academic averages, students with 'average' academic grades but possessing other qualities essential in a highly qualified professional person, would be excluded from physical therapy programmes. As the admissions process at the University of Toronto did not provide a satisfactory method of assessing the non-intellectual qualities of empathy, motivation, and ability to interact with people, the interview was selected to fulfill this purpose.

This study will therefore discuss the use of the interview as a component in the selection of physical therapy students under

the following headings:

- A. a review of the literature pertaining to the interview in student selection.
- B. Analysis of a questionnaire concerning the use of the interview in selection, sent to all universities with physical therapy schools in the United States and Canada.
- C. Analysis of the method of selecting physical therapy students at the University of Toronto through academic achievement and two interviews.

The findings of this study to support the validity of the interview will be determined by the performance of the 57 students selected for the first year of the physical therapy programme at the University of Toronto in 1973.

CHAPTER II

BACKGROUND TO THE PROJECT

A. Review of the Literature

This survey consists of a selection of interview literature concerning the acceptability of applicants for careers in business and industry. Literature on the selection of candidates entering the professions of medicine and physical therapy has also been included. The review has been limited to literature of North America from 1915 to the present time.

No attempt has been made to survey all aspects of the personnel or selection interview, and so the review has been restricted to: the purpose of the selection interview; the structure of the interview; the interviewers; and the validity of this type of interview. Each of these then will be examined and discussed in the following sections.

1. Overview of the Research

The personnel interview can be defined as "a specific management tool to facilitate the effective selection, placement,

motivation, and personal adjustment of employees."¹ This definition can also be adapted to the interview which is used as one tool in the selection of candidates for professional training programmes in colleges and universities.

Although the selection interview is one of the most popular methods used in evaluating applicants for positions in industry and in business, minimal information is available concerning the dynamics of the interview situation, and the scoring of the results. Many personnel officers and management officials continue to feel they have had sufficient experience to be able to evaluate applicants in a half-hour face-to-face meeting. The literature shows much to the contrary.

In 1915, an almost classical study on the reliability of interviewers in the selection of salesmen, was reported by Scott (96). His results showed that there was almost no agreement between the six managers in their ranking of 36 applicants for suitability for the job. The value of the interview was again seriously questioned by Hollingsworth (54) in 1922. In his study of 57 applicants for sales positions, interviewed separately by 12 managers, it was shown that there was a great discrepancy between the scores of the various interviewers. During the next 20 years several other studies concerning the reliability of the interview in judging specific traits,

¹ Felix M. Lopez, Jr., Personnel Interviewing: Theory and Practice, New York: McGraw-Hill Book Company, 1965, 3.

were conducted with apparently similar results, (Scott et al (97) in 1916, Snow (103) in 1924, and Corey (24) in 1933). The only study done before 1930 which reported that the interview had a high predictive validity was one by Clark (21) in 1926. Students were interviewed and predictions made on the students' semester grade averages. The resulting correlations were relatively high. However, Wagner (119) in his review of the literature commented that, as the students were interviewed late in the semester and were asked how they were getting on in their studies, the interviewers' estimate was only an echo of the student's own appraisal of himself.

By 1931, Moss (78) conducted a study on the effectiveness of the interview as a means of predicting success in medical school. He found that 33 per cent of the failures might have been eliminated by the interview, but that 23 per cent of those making academic averages of 85 or above would also have been eliminated. Moss went on to say that there were three reasons for the unreliability of the interview used for selection of medical students: a. that interviewers tended to generalize from a few experiences; b. that they assumed that habits were general and not specific, for example, if an applicant was presentable at the interview, it would necessarily follow in other facets of his career; c. no definitive standard had been set for judging the answers to questions asked during the interview. Each interviewer evaluated the answers according to his own standard.

These early studies cast so much doubt on the reliability and validity of the selection interview, it is surprising that it

has survived to become one of the most acceptable and most used methods for selecting people for jobs. In discussing the limitations of personnel interviews, Dunnett and Bass said:

The personnel interview continues to be the most widely used method for selecting employees, despite the fact that it is a costly, inefficient, and usually invalid procedure. It is often used to the exclusion of far more thoroughly researched and validated procedures. Even when the interview is used in conjunction with other procedures, it is almost always treated as the final hurdle in the selection process. In fact, other selection methods (e.g., psychological tests) are often regarded simply as supplements to the interview.¹

Spriegal and James (105) found that 93 per cent of 236 business firms, surveyed in 1930, interviewed applicants before hiring. In a follow-up study of 852 firms in 1957, they found that 99 per cent of the firms interviewed all applicants. It would seem that this situation has not changed radically since that time. With this kind of information one would expect that the literature would show a great many quantitative studies on the validity of the interview. In actual fact this has not been the case. Wagner (119) reported that there was still much confusion concerning what could be accomplished by the interview, and he pleaded for more and better research on the interview. England and Paterson reiterated this plea for more research when they suggested:

¹ Marvin D. Dunnette, and Bernard M. Bass, "Behavioral Scientists and Personnel Management," Industrial Relations, 1963, 2: 117-118.

...a moratorium on books, articles, and other writings about "how to interview," "do's and don't's" about interviewing, and the like, until there is sufficient research evidence about the reliability and validity of the interview as an assessment device to warrant its use in such work.¹

Another group of researchers has done intensive studies over a long period of time, on the selection interview used in the life insurance industry. In a report published in 1971, Carlson et al (19) have indicated that the role of the interview in selection will not be much changed by additional evidence of its lack of validity. Until such time as more research is directed toward improving interview techniques and toward understanding the mechanism of the interview, it will continue to be used as it has been for the last 50 years.

2. Purposes of the Interview

In the period covered by this survey the interview has been used for a variety of reasons such as; the estimation of intelligence, the rating of various physical and personality traits and characteristics, the collection of information about candidates' motives, attitudes, and integrity. Furthermore, it has served to predict success in jobs and in professional training programmes.

¹ G.W. England, and D.G. Paterson, "Selection and Placement--The Past Ten Years," in H.G. Heneman Jr., ed., Employment Relations Research, New York: Harpers, 1960, 57.

In one of the earliest reported studies, Magson (65) attempted to estimate intelligence using 35 judges to interview 149 men students. He compared the scores obtained with the students' intelligence test scores, and found the resulting correlations very low. Other researchers, Moriwaki (76) and Snedden (102) conducting similar studies, showed somewhat higher correlations between intelligence test ratings and interview estimates of intelligence. However they pointed out that as psychological tests improved the interview should no longer perform the function of estimating intellect. Wagner (119) agreed that this was true as there has been a gradual disappearance of studies on the value of the interview used for this purpose.

In 1947, Runquist (92) attempted to evaluate the interview, used in a very specific way, as one component of the selection process. This study concerned the selection of officers to remain in the post-war army. Runquist used the interview to test one factor, social interaction or the ability to deal with people, as revealed in the interview situation. His results showed that the interview rating had a high reliability and a significant validity. When these scores were added to all other components of the selection process, the multiple correlation coefficient was improved somewhat. Runquist concluded that the interview could be reliable when used for a specific purpose and that it, therefore, did contribute to the total selection process. In summarizing the literature on the interview up to 1949, Wagner (119) said that the interview could be a useful evaluation tool to measure traits which could

not be assessed by more scientific methods. These characteristics would include interaction between people, attitudes, and motives.

In the literature on selection of individuals for professional training e.g. medical students, there is ample support for the use of the interview to evaluate personality characteristics. Zubin (126) has said that the main purpose of the interview is to find out about applicants' attitudes and motives as they relate to his interest in medicine, and his ability to interact with people. These traits could be measured only by interview because, up to this point, no objective tests had been designed to adequately assess them. There is support for this view in the work of Stubbs (111) and Wood et al (123). Ceithaml (20) has suggested that the interview permits an admissions committee to verify and clarify information obtained from the application form and from other sources such as, reference letters, school and college reports etc. He further comments that interviews could promote good public relations between the medical school and parents, applicants, state legislatures, and possibly future medical school candidates. Therefore, used as one of the components for selecting medical students, the interview could serve multiple purposes.

Morse (77), in presenting a progress report on the evaluation of the admissions process at the Medical College of Georgia, has intimated that the interview will continue to be used as a tool in the selection of students. Even if reliability and validity

stay at a low level, he suggests that the interview will still be used because it serves such an excellent public relations function. In 1973, Rosenberg (89) conducted a study on the admissions procedures in four american medical schools. He suggested that, to reduce costs and improve efficiency, the interview should be used only when the decision to accept or reject a candidate could not be made from other information, such as Medical College Admission Test (MCAT) scores, composite index of grades in pre-medical courses, and other factors. This selective interview should be used to evaluate applicants on psychological maturity, knowledge of and interest in medicine, and on their ability to work well with others; all factors which cannot be assessed by more scientific tests. Employing the interview in this manner could help to reduce the cost, as fewer manpower hours would be expended, and yet medical schools could still obtain a highly desirable student body.

The interview used for selection of personnel or candidates for medical school is in fact a multipurpose device. It has a selection role, a public relations role, a recruiting role, and it has an information disseminating role. Ulrich and Trumbo (118) are convinced that this is one of the strongest reasons why the interview continues to be employed, even though there is little conclusive proof that it can effectively predict success in business or in professional training programmes.

3. Structure of the Interview

The question has been raised concerning whether a structured or unstructured style of interview will result in more effective decisions being made. A structured interview is one in which the interviewer follows a set procedure and format. On the other hand in an unstructured interview the interviewer has no set procedure and merely follows the applicant's lead.

Traditionally the personnel interview, as used in business and in industry, has been unstructured. Balinsky and Burger (5) have discussed this at some length and have suggested that perhaps one of the reasons for its continued use is that managerial personnel, as a function of their work, have been accustomed to judging people in many situations. Many of these same managers did not stop to analyze the accuracy of their predictions and decisions. They relied on instinct and intuition, and if they failed to achieve satisfactory results it was usually claimed that human beings were not infallible and did make mistakes. Another cause of the unreliability of the unstructured interview, according to Asch (4), was that different interviewers very often gave different weighting to the same information received from the applicants. This was supported by Webster (121) in his report of several studies, where the findings suggested that personality characteristics were often given different interpretation and emphasis by different interviewers.

Some of the earliest studies on the effectiveness of the selection interview, using a structured form with a specific rating scale, were carried out in the 1940's. A patterned form, designed and first tested by Hovland and Wonderlic (55), was constructed of a series of questions, some to be answered by the candidate and some by the interviewer. These questions covered a variety of topics such as; work history, family history, social and personal history. A very simple scoring system was devised to rate each candidate at the end of the interview. The results showed that when two interviewers rated each applicant separately, there was a high degree of agreement between the two scorers. However, the number of applicants used in the study was too small to be truly significant.

Other studies using a similar form and rating scale were conducted by Runquist (92) and McMurray (73). Their results confirmed those obtained by Hovland and Wonderlic, and also showed that the validity of this type of interview was significant. That is, when correlated with length of service on the jobs for which the applicants had been hired, a greater percentage of those with high scores on interview remained for longer periods of time than those with low interview scores. In his review of the literature of this period, Wagner supported this work when he concluded that:

An interview, regardless of its length or purpose, should be conducted according to a standardized form. This prevents aimless

rambling, lengthy digressions, and the possibility of omitting important areas. ¹

Since that time, other investigators studying the use of a structured form, have found similar results, according to Mayfield (69), and Ulrich and Trumbo (118). These writers have strongly urged the use of this form if the reliability of the selection interview is to be significantly improved. Mayfield also suggested that further investigation of the interview structure, under more controlled conditions, was definitely needed. While it was generally agreed by the above authors that the more structured interview was more reliable, they also pointed out that this conclusion was based on comparisons of studies which were very different in design. For example, Adams and Smeltzer (1) used a rating scale on which all traits were measured by individual points. Campbell et al (13), on the other hand, used an overall score, and did not rate individual characteristics. Also the amount of structure in the interview was not the same in all studies which were compared. Up to 1969, there had been no attempt made to see if, by varying the amount of interview structure within one study, any further improvement in reliability could be obtained.

One such investigation, conducted by Schwab and Heneman (95) in 1969, did evaluate the impact of the degree of structure on

¹ Ralph Wagner, "The Employment Interview: A Critical Summary," Personn. Psychol., 1949, 2: 42.

reliability between interviewers. The design for this study consisted of five candidates for a particular position being interviewed by three groups of interviewers. Each group interviewed and then ranked the five applicants. One group used the structured format of interview. The second group used a semistructured form, whereby the interviewers followed the structured form but could ask questions on any other area. The third group used an unstructured form, in which the interviewers were free to interview the applicants in any manner they wished. The investigators found that the degree of agreement between the interviewers increased as the degree of structure in the interview format increased. Further analysis of these results, by Carlson et al (18) revealed that there was almost no agreement between interviewers using the unstructured interview, when compared with those using a structured form. The three interviewer groups were not measuring the same characteristics in the candidates, even though all groups had access to the same information about the applicants. Those interviewers using the unstructured style of interviewing obviously elicited further information from the applicants, while those using the structured interview were constrained by the specific format and rating scale they had to use. The investigators concluded that a high inter-interviewer agreement could be achieved as long as information received by all interviewers was scored in the same way using a structured form.

There have been many studies on the use of an interview chart with a special rating scale. These were designed because of the strong belief that improved reliability of the structured interview could only be accomplished by using more precise rating scales. This belief was supported by McMurray (73), Smeltzer and Adams (101, Yonge (125), and Carlson and Mayfield (17), and was later confirmed by Maas (64) in 1965. He reported on a comprehensive series of four experiments designed to improve the reliability of the structured interview using a specific 'scaled expectation rating' method. This procedure consisted of the following: Examples of on-the-job behaviour were written to illustrate three levels of each trait to be assessed by the interview. A scoring system was devised and interviewers then rated each trait by comparing the candidate's answers, during interview, with the behaviour example already written on the interview guide.

The first experiment was constructed to ascertain the reliability of two interviewers' ratings of the same candidates, and the traditional 'adjective rating scale' (i.e. excellent, good, average, poor, and very poor) was used for the scoring of six normal personality traits. Individual scores for each trait were averaged with an overall subjective rating given each applicant. The composite scores obtained by each interviewer were then compared. The resulting correlations, although significant, were disappointingly low.

The following year, Maas repeated the experiment with three different groups of college students. Using the same design, he scored the results of the interviews on the 'scaled expectation rating' form. A significant improvement in the correlations was seen, when the interviewers scores were compared. Maas concluded that the new 'scaled expectation rating' technique was much more reliable than the 'adjective rating scale' which had been used in most previous studies of this type.

The research described in this section certainly shows that reliability of the structured interview is superior to that of the unstructured type of interview. With the use of a more precise rating scale, interview effectiveness is further enhanced. Yet authors such as, Mayfield (69), and Wright (124), continue to urge that more studies are still needed to demonstrate that structure does play a significant role in making the interview a valid component of the selection process.

4. The Interviewers

What are the characteristics of an effective interviewer? Should he have special training in order to become skilled in the techniques of interviewing? It has been said that the interview is a very subjective method of measuring individual characteristics. Yet with the multiplicity of psychological tests which have been developed, there are still certain pieces of information which

cannot be readily assessed in quantitative terms. In studies described earlier in this chapter, Hovland and Wonderlic (55) and McMurray (73) suggested that the interviewer could develop a skill in the ability to appraise the overall value of an interviewee. They advocated the use of the structured interview form, which would ensure that all interviewers would ask the same questions, and would score the answers on a precise rating scale. By training the interviewers to be skilled in using interview techniques, their ability to make valid judgements would be strengthened.

It would seem that there is a great deal of logic in the above statements. If one could ensure that all interviewers were judging traits using the same frame of reference, then it would be possible to put the interview on a more objective footing, and it would become a directed, meaningful face-to-face meeting for a specific purpose. Stubbs (111) made this one of his main points when he suggested that the selection interview was synonymous with clinical diagnosis, for which medical students received training. By inference then, interviewers could and should be trained.

Some of the techniques an interviewer uses are those which form part of ordinary conversation. The method of amplified agreement is one such technique. The interviewer will expand a statement made by the applicant in order to discover if what he had said is really representative of his view on the subject. The applicant

will then agree with this amplified statement, correct the statement or ignore it. "In this way, the limitations of his attitudes and the tenacity with which he adhered to them would be revealed to the observant interviewer."¹ Techniques such as disagreement, change of tempo, surprise, and others, all tactics of ordinary conversation, could be used most effectively in the hands of one who recognizes them as skills of interviewing.

The question of whether experience in interviewing can be substituted for training in the techniques of interviewing has been raised by several investigators. Rowe (90) found that more experienced interviewers tended to be more selective in accepting candidates and they usually accepted fewer applicants than less experienced interviewers. Maier (66) has said that untrained interviewers can discriminate to a significant degree certain characteristics such as honesty or dishonesty. He went on to comment that this discrimination was not based on objective evidence, but rather on impressions.

Zubin (126) has stressed the value of training in interview techniques. Carlson et al (19) supported this view and suggested that interviewers (skilled or not) benefit very little from their interviewing experiences. One reason for this was that almost

¹ Joseph Zubin, "A Brief Survey of the Interview," J. Med. Educ., 1957, 32: Part 2, 63-64.

no feedback, either good or bad, is given to the interviewers. For example, rarely is an interviewer told whether the applicants he has interviewed have been accepted or not. Rarely is he informed whether the accepted candidates' behavior on the job is consistent with the behavior assessed during the selection interview. So interviewers do not learn from their experiences and possibly they continue to make the same mistakes. Systematic training is, therefore, one solution to this problem, and feedback is essential to allow interviewers to profit from their experiences. Another problem, found particularly in the employment interview used in industry, stems from the pressures exerted to recruit employees to meet certain quotas. This was studied by Carlson (15) and he concluded that those managers with a great deal of interviewing experience were less susceptible to this pressure than were less experienced interviewers.

If it is accepted that it is desirable to train interviewers, the question then arises what makes an effective interviewer, and further to this, can all persons who wish to interview be trained. Few researchers have actually done studies on this, but Steinkamp (109) did try to find out what personality traits contributed to effectiveness in interviewers. His results give some guidelines to use as a yardstick, even though they must be tempered by the limitations of his study i.e., small numbers of subjects, and lack of ability to randomize his selection of subjects. He suggested

that effective interviewers were socially skillful, emotionally stable, well organized, and willing to accept routine. He concluded that this person could best be described as 'cool' in the accepted popular sense.

An effective interviewer who has been well trained will usually avoid several of the more obvious faults or errors, which are the biases hampering the use of the interview as a selection device. This has been supported by Wright (124) in his review of interview literature in 1969. According to Sidney and Brown (100), halo effect can be avoided through training. This term can be defined as generalizing from one isolated fact and drawing conclusions about an applicant based on insufficient information. Another error, described by Zubin (126), is improper weighting of different elements in the interview which may distort the outcome or decision affecting the applicant. The error of central tendency, discussed in the Public Service Commission Report (85), is very common. Rating most applicants in the middle of the scale is a problem of the inexperienced and untrained interviewer. This can be attributed to fear of using the extremes on the rating scale. Such an interviewer has thus "provided no information for differentiating the population."¹ and this factor helps to contribute to the invalidity of the interview.

¹ Zubin, 64.

Springbett (106), and Bolster and Springbett (12) found that unfavourable information discovered early in the interview caused bias against the applicant. A negative decision usually resulted, which outweighed any favourable information elicited later on in the interview. The generosity effect, which makes the interviewer give the applicant the benefit of the doubt, is yet another error and this leads to the possibility of minimizing the candidate's lack of integrity.

In a series of studies, conducted at McGill University under the direction of Webster (120), some valuable research was done on the decision making process in the employment interview. Evidence produced by Springbett (106), one of Webster's group, showed that when application forms were reviewed prior to the interview, the decision to accept or reject the applicant was made within the first two or three minutes of the interview in about 85 per cent of the cases studied. It was apparent that the interviewer's decision was influenced by the information available to him in the application form.

Sydiaha (112) found that the impressions received during the interview did contribute significantly to the final decision to hire or reject the applicant. In other words a favourable impression usually resulted in the acceptance of the applicant, while an unfavourable impression produced the opposite result. Anderson (2),

another of the McGill group, reported that the amount an interviewer talked during the interview was directly related to the decision to accept the candidate. In other words the more the interviewer talked the more likely would the applicant be accepted. He also discovered that this occurred when the decision to accept a candidate was made in the first half of the interview. Rowe (90) found that the more positively an applicant's characteristics were rated at interview the more frequently he was accepted.

In his summary of the research of the above investigators, Webster (121) commented that there was a similarity between decision making in the interview situation and 'falling in love at first sight'. There is a real danger, in both situations, of losing objectivity. "Non-rational impressions are...established in both cases and information subsequently available is screened so that positive facts are accepted while negative ones are ignored..."¹ Webster went on to say that methods must be found to prevent the early impressions in the interview situation from becoming the lasting ones. Rowe(91), in a continuation of her studies of the decision making process, reported in 1967, that the order in which applicants are seen has a bearing on whether they are accepted or not. This implies that an applicant is being judged by the characteristics of a former candidate and not on his own merits.

¹ Edward C. Webster, Decision Making in the Employment Interview, Montreal: Industrial Relations Centre, McGill University, 1964, 106.

The studies in this section point out that evidence of proof of the interviewers' objectivity is somewhat lacking. Whether trained or untrained, the human being as the interviewer is still judging his fellow man by using his own conglomerate of ideas and convictions. Objectivity is extremely difficult to measure by statistical methods, because one is dealing with unpredictable variables. However, if one can accept that there are non-rational factors in the decision making process, then perhaps one can also accept the fact that perfection is not required. "It will be enough if we develop the scientific art of arriving at sufficient conclusions from insufficient data..."¹

5. Validity of the Interview

When the interview is used as one component of a selection process, which may also include psychological tests, grade point average (GPA),² letters of reference etc., can it really forecast successful performance of a candidate in a professional training programme, or in a specific position in industry or in business? Can better selection decisions be made when the interview is used than when it is not used? If the interview is to be employed as a predictive device, then the criterion chosen for comparison must be reasonably valid and reliable.

¹ Webster, 117.

² Overall academic average for a year, or for several years.

According to Kelly (60), GPA from first year in medical school is one of the commonest criteria with which the admissions interview is compared. He goes on to say that grades are only one measure of success and they are not necessarily the best ones. Other measures such as social interaction, empathy, and motivation also could be used as criteria, but the reason that first year grades are often chosen is that they are conveniently at hand, and they are quantitative.

A search of the literature has revealed only a few experimental studies which have tested the predictive value of the selection interview. One of these was carried out by Yonge (125), who designed a pilot study to test the validity of the essential character of the interview as used in industry. He assessed employee attitudes on a special chart planned to rate job interest, social interest, self regard, preference for choice of work, perseverance, and nervous tension. These scores were matched against employee productivity and relations on the job. Yonge reported there was evidence of validity and he concluded that the interview could play a reliable part in the overall assessment of applicants. Anderson (3) used a design similar to that described by Yonge in order to interview and rate prospective doctoral candidates. When the interview scores were compared with faculty assessments of the candidates following their admission, a fairly high validity rating was obtained. This was considerably higher than that obtained when the non-interview data, also used in the selection process, and the

faculty assessments were compared. Anderson concluded that the guided interview was a valid predictor of successful performance and therefore it should be used as one of the components in the admissions process.

Conger and Fitz (23) found that the interview had a higher validity when matched with the four-year cumulative standing of medical students than when related to first year GPA only. The predictor variables: undergraduate GPA scores; MCAT scores; and admissions interview scores were correlated individually with each of the criteria of success: dropout rate; class standing for the two preclinical years; the two clinical years; and the four-year cumulative standing. The results were as follows: a. interview ratings were totally unrelated to the dropout rate; b. statistically significant positive relationships were found between the interview scores and the other three criteria. As the students moved through the four medical years, the personal qualities (assessed by interview) increased in importance, but academic ability (measured by GPA and MCAT scores) became less important to the students' success in the clinical years. Conger and Fitz concluded that if the interview was to be used as a valid predictor it was necessary to compare it with overall performance in medical school and not just with first year performance.

In support of these findings, Gough (43) found that non-intellectual factors (personal qualities, traits, and characteristics), which were particularly important in the final stages of training,

could not be predicted by the accepted scientific methods such as GPA and MCAT. He concluded that these traits should be assessed by interview in the selection process, even though highly significant validity ratings have not been documented.

The studies reported in this section indicate there is some evidence that the selection interview has value as a predictive device. If greater validity is to be achieved a structured interview guide scored on a specific rating chart must be matched with reliable criteria of success.

6. Conclusions

This survey has described some of the selection interview research produced in North America during the last 50 years. The discussion has concentrated on the interviewer, the structure of the interview, its validity and its purpose. Much of the literature is composed of manuals on interviewing techniques and personal opinion documents. The experimental studies which have been reported are scattered and their results are somewhat inconclusive. Nevertheless many authors have concluded that the interview has value and will remain one component of the selection process. More than half a century has elapsed since Scott (96) questioned the value of the interview. To-day this question has not been answered to the satisfaction of all. The actual dynamics of the interview situation have,

to some extent, eluded the researchers, and therefore, "a great deal of research work remains,...before we can count the interview as a prime weapon in our selection arsenal."¹

B. Questionnaire

1. Design

Virtually no literature has been found which specifically relates to the selection procedures used for admitting candidates to physical therapy programmes. Consequently a questionnaire was developed to obtain information on the methods used for selecting such students and to discover the place of the interview in these procedures. All the directors of basic physical therapy training programmes in Canada and in the United States were surveyed. Seventy-seven questionnaires, each with a covering letter, were mailed to the 12 schools in Canada and to the 65 schools in the United States, see Appendix 1. It was hoped that the tabulated results of this survey would provide an overview of the role of the interview in the admissions process used to select candidates for physical therapy training in North America.

The questionnaire was divided into three main sections. The first part sought information on the ratio of the number of student applications to the number of places available in physical

¹ Donald P. Schwab, "Why Interview? A Critique," Personn. J., 1969, 48: 129.

therapy programmes. The second part was designed to obtain information on the place of the interview in the selection process. The areas covered in this section were as follows:

Method of conducting the interview

Interviewers

Purposes of the interview

Types of interview

Scoring of the interview

Number of schools interviewing all applicants

Percentage of applicants interviewed and method of selection for interview

Criteria other than interview used for selection

Weighting of the interview

For those schools which did not use the interview in their selection process, the third section asked for a brief description of their method of selection.

Most of the questions were developed so they could be answered using either a check-mark or a number. The purpose was to assist the respondents to complete the questionnaire in a very short time with a minimum of effort.

2. Results and Discussion

Seventy-seven questionnaires were sent to the directors of all the physical therapy basic training programmes in Canada and in the United States. Sixty-seven completed questionnaires were returned as shown in Table 1.

Table 1**Total Responses**

| Responses | Number | Percentage |
|-----------------------|--------|------------|
| Total Number Received | 67 | 87.01 |
| No Reply | 10 | 12.99 |
| Total Number Sent | 77 | 100.00 |

a. Number of Applicants

The general information on the number of applicants to schools of physical therapy, and the number of candidates accepted in these schools for 1973 and for 1974 are detailed in Table 2.

Table 2

The Number of Applicants, the Number of Places Available, the Number of Candidates Registered, and the Ratio of Number of Applicants to the Number of Places Offered.

| Year | Total Number Places Offered | Total Number of Applicants For Places | Total Number of Candidates Registered | Ratio of Applicants To Places Offered |
|------|-----------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| 1973 | 2137 | 13893 | 2115 | 6.5 |
| 1974 | 2140 | 15371 | 2137 | 7.2 |

These figures can only be an approximate guide to the ratio of applicants to number of places available, because there is no way of finding out how many applicants applied to more than one school. Even so, the ratios of 6.5 and 7.2 applicants for each place offered show the very large number of applicants seeking admission to physical therapy programmes.

b. Number of Schools Using the Interview

It is interesting to note that of the 67 schools responding to the questionnaire, 55 of them use the interview as one component of the selection process. This is shown in Table 3.

Table 3

Number of Schools Using the Interview and the
Number Using Other Selection Criteria

| Replies | Use of Interview | |
|---------|------------------|------------|
| | Number | Percentage |
| Yes | 55 | 82.09 |
| No | 12 | 17.91 |
| Total | 67 | 100.00 |

c. Number of Interviews

The respondents were asked to indicate the number of interviews given each candidate and the number of interviewers for each interview. Table 4a shows that the majority of schools use one interview for each candidate.

Table 4a

Number of Interviews per Candidate Related
to the Number of Schools Responding

| Number of Interviews | Number of Schools | Percentage |
|------------------------------|-------------------|------------|
| one | 42 | 76.35 |
| two | 5 | 9.10 |
| three | 3 | 5.45 |
| Group Interview ¹ | 5 | 9.10 |
| Total | 55 | 100.00 |

¹ Three or more candidates met with one or more interviewers at one time.

Further analysis of these figures (Table 4b) gives the number of interviewers in relation to the number of interviews. A significant fact here is that approximately one-third of the schools responding use one interviewer only, per interview.

Table 4b

Analysis of Number of Interviews and Number of Interviewers per Interview, by Schools

| Number of Interviews | Number of Interviewers per Interview | | | | Total Number of Schools |
|----------------------|--------------------------------------|---------------|--------------|--------------|-------------------------|
| | one | two | three | four or more | |
| one | 17 (30.90) ² | 10 (18.18) | 9 (16.36) | 6 (10.91) | 42 (76.35) |
| two | 4 (7.28) | 0 | 1 (1.82) | 0 | 5 (9.10) |
| three | 3 (5.45) | 0 | 0 | 0 | 3 (5.45) |
| Group ¹ | 2 (3.64) | 0 | 1 (1.82) | 2 (3.64) | 5 (9.10) |
| Total | | | | | 55 (100.00) |

¹ Three or more candidates met with one or more interviewers at one time.

² Numbers in brackets refer to percentage values.

d. The Interviewers

All the schools surveyed used physical therapy academic faculty for interviewing, and 50 per cent of the schools used academic faculty only as interviewers. In Table 5 the various combinations of interviewers are shown.

Table 5**Classification of Interviewers Used by the
Responding Schools**

| | Physical Therapy Faculty Only | Physical Therapy Faculty and Clinical Physical Therapists | Physical Therapy Faculty, Clinical Physical Therapists, and Others* | Physical Therapy Faculty and Students | Physical Therapy Faculty and all Other Categories | Totals |
|-------------------------|--|---|---|---|--|--------|
| Number of Schools | 27 | 10 | 7 | 4 | 7 | 55 |
| Percentage of Total | 49.09 | 18.18 | 12.73 | 7.27 | 12.73 | 100.00 |

* Others include: psychologists; doctors; admissions officers; and post-graduate students.

In some schools the clinical physical therapists were from the hospitals and clinics in the area served by the school. In other cases these persons were clinical members of the school faculty. The students used were those currently in the physical therapy programmes; and the category 'other persons' included admissions officers, psychologists, medical doctors, and in a few schools post-graduate candidates in the Allied Health field.

e. Purposes of the Interview

All the respondents indicated that the main purpose of the interview was to evaluate the attitudes and motives of the candidates. Ability to interact with people was given almost equal importance. Table 6 shows this detail.

Table 6

Use of the Interview to Measure Attitudes and Motives,
and Interaction with People, by Responding Schools.

| | Attitudes and Motives Only | Attitudes and Interaction | Attitudes and Interaction and Other | Attitudes and Other | Totals |
|-------------------------|-------------------------------------|---------------------------------|--|---------------------------|--------|
| Number of Schools | 1 | 20 | 33 | 1 | 55 |
| Percentage of Total | 1.82 | 36.36 | 60.00 | 1.82 | 100.00 |

Sixty per cent of the schools regarded the ability to communicate verbally, poise under stress, and experience and insight into physical therapy as other important items to be assessed by interview.

f. Types of Interview

As can be seen in Table 7, most of the schools used the semistructured format for interviewing. This type of interview allows the interviewer considerable latitude in the manner in which topics are discussed with the candidate, although a set pattern of questions is usually followed. In contrast to this, a structured type of interview is defined as one having a very detailed outline, and the interviewer is permitted little freedom in the way questions are asked and scored. The unstructured format permits both candidate and interviewer to range over a wide spectrum of subject matter in a manner suitable to both. This type is usually scored by an overall impression grade. An example of each type of interview form is found in Appendix 1.

Table 7

Type of Interview Used by the
Responding Schools

| | Structured Format | Semi- Structured Format | Unstructured Format | Totals |
|-------------------------|----------------------|-------------------------------|------------------------|--------|
| Number of Schools | 6 | 39 | 10 | 55 |
| Percentage of Total | 10.91 | 70.91 | 18.18 | 100.00 |

g. Scoring of the Interview

It is evident from Table 8 that the majority of schools use the overall impression grade for rating the interview.

Table 8

Method of Scoring Used by
the Responding Schools

| | Individual Points Only | Overall Impression Only | Both | Totals |
|-------------------------|------------------------------|-------------------------------|-------|--------|
| Number of Schools | 14 | 35 | 6 | 55 |
| Percentage of Total | 25.45 | 63.64 | 10.91 | 100.00 |

A comparison was made between the type of interview used and the method of rating the interview. Research, described earlier by Maas (64), has shown that more objective results were obtained using structured interviews scored on specific rating scales, than unstructured interviews scored by an overall impression. Table 9 shows that there is a trend in this direction.

Table 9

Comparison Between Type of Interview Used
and the Method of Scoring the Interview

| Type of Interview | Scoring by Individual Points | Scoring by Overall Impression | Scoring by both Methods |
|-------------------|------------------------------|-------------------------------|-------------------------|
| Structured | 5 (9.10)* | 1 (1.82) | 0 |
| Semistructured | 9 (16.36) | 24 (43.63) | 6 (10.91) |
| Unstructured | 0 | 10 (18.18) | 0 |

* Numbers in brackets represent percentage values.

Of those schools which used a structured format, five of the six used individual point scoring. As was expected, those schools using the unstructured form all rated candidates using an overall impression grade. It would be impossible to rate such an interview using individual points.

h. Number of Schools Interviewing all Applicants

Table 10 shows that approximately 40 per cent of responding schools interview all candidates applying for positions.

Table 10

Number of Schools Interviewing
all Applicants

| | Yes | No | Totals |
|------------------------|-------|-------|--------|
| Number of Schools | 20 | 35 | 55 |
| Percentage of Total | 36.36 | 63.64 | 100.00 |

i. Selection of Applicants for Interview

More than 60 per cent of the responding schools interviewed only a proportion of the candidates applying. The percentages of candidates interviewed are shown in Table 11.

Table 11

Percentage of Candidates Interviewed in Schools
Which Did Not Interview all Candidates

| | Percentage of Candidates | | | | Totals |
|------------------------|--------------------------|-------|-------|-------|--------|
| | 0-24 | 25-49 | 50-74 | 75-99 | |
| Number of Schools | 5 | 8 | 9 | 13 | 35 |
| Percentage of Total | 14.29 | 22.86 | 25.71 | 37.14 | 100.00 |

The criteria used to select candidates for interview included the cumulative GPA, completion of certain prerequisite subjects, satisfactory references; and high scores on certain specific psychological tests. The various combinations of these criteria are detailed in Table 12.

Table 12

Methods Used to Select Candidates
for Interview

| | GPA Only | GPA and All Others ¹ | Geography ² or Residence | Other ³ | Totals |
|------------------------|-------------|------------------------------------|---|--------------------|--------|
| Number of Schools | 5 | 23 | 3 | 4 | 35 |
| Percentage of Total | 14.29 | 65.71 | 8.57 | 11.43 | 100.00 |

¹ GPA and prerequisite subjects, test scores, and references.

² Only those residing in the state or province were interviewed.

³ Candidates initiated the interview.

j. Criteria Other than Interview Used for Selection

Entrance GPA was used by all 55 schools as another component of the selection process. This grade was a cumulative average of all pre-admission courses, and in some cases represented several years of schooling. Many of the schools used tests which

included personality inventories, various aptitude tests, and several schools used the Graduate Record Examination (GRE). A complete list of all the tests used in the schools surveyed is found in Appendix 1. Biographical letters and letters of reference were considered by the majority of schools to be of value. Schools responding to the 'Other Criteria' category listed such items as extra-curricular activities, employment experience, residency status, health status, and exposure to physical therapy. Table 13 shows this detail.

Table 13

Selection Criteria Used by the Responding
Schools, Excluding the Interview

| | GPA, Psychometric Tests, and Other* | GPA, Biographical Letters, References and Other | GPA and Other | GPA Only | Totals |
|------------------------|--|---|---------------------|-------------|--------|
| Number of Schools | 25 | 18 | 10 | 2 | 55 |
| Percentage of Total | 45.45 | 32.73 | 18.18 | 3.64 | 100.00 |

* Other includes extra-cu-ricular activities, residence status, health, exposure to physical therapy, etc.

k. Weighting of the Interview

The percentage of weight given to the interview in

establishing the candidate's total score is shown in Table 14. It should be noted that 60 per cent of the schools weighted the interview less than 50 per cent of the total selection score. On the other hand, two schools used the interview as the deciding factor in selection.

Table 14

Percentage Weight Given the Interview in the
Total Selection Score in Responding Schools

| | Percentage Weight | | | | Deciding Factor | Totals |
|------------------------|-------------------|-------|-------|-------|--------------------|--------|
| | 0-24 | 25-49 | 50-74 | 75-99 | | |
| Number of Schools | 8 | 25 | 15 | 5 | 2 | 55 |
| Percentage of Total | 14.54 | 45.45 | 27.27 | 9.10 | 3.64 | 100.00 |

A comparison was drawn between the type of interview used and the percentage weight given to it in the total score. Table 15 shows this detail.

Table 15

Comparison Between Type of Interview and Percentage Weighting of Interview in the Total Selection Score

| Type of Interview | Percentage Weight | | | | Deciding Factor |
|-------------------|-------------------|---------------|---------------|-------------|-----------------|
| | 0-24 | 25-49 | 50-74 | 75-99 | |
| Structured | 3 (5.45) * | 3 (5.45) | 0 | 0 | 0 |
| Semi-Structured | 3 (5.45) | 19 (34.54) | 11 (20.00) | 5 (9.10) | 1 (1.82) |
| Unstructured | 2 (3.64) | 4 (7.28) | 3 (5.45) | 0 | 1 (1.82) |

* Numbers in brackets represent percentage values.

It is somewhat surprising that all six schools which used the structured interview form gave it less than half of the overall selection score. It was shown earlier in this chapter that the structured interview was a more valid predictor of success than other types of interview. Therefore, it could be expected that more weighting would be given to this predictor. However, it is possible that the item on Weighting of the Interview in the questionnaire was ambiguous and thus open to misinterpretation.

1. Schools Not Using the Interview

The final section of the questionnaire was directed to those schools which did not use the interview as part of the admissions process. In this category twelve schools responded. The breakdown of the various selection criteria used by these schools is shown in Table 16.

Table 16

Criteria for Selection of Students in
Schools Not Using the Interview

| | GPA Only | GPA and Pre- requisite Subjects | GPA and Residence | GPA and Bio- graphical Letters | GPA and Other* | Totals |
|------------------------|-------------|--|----------------------|---|----------------------|--------|
| Number of Schools | 2 | 2 | 1 | 1 | 6 | 12 |
| Percentage of Total | 16.67 | 16.67 | 8.33 | 8.33 | 50.00 | 100.00 |

* Other includes: test scores; extra-curricular activities; knowledge of physical therapy; and references.

It is interesting to see that ten of these schools use a variety of criteria, and that only two use GPA as the sole method for selecting candidates.

3. Conclusions

The tabulated results of this questionnaire show the present status of the Admissions Process in schools of physical therapy in Canada and in the United States. The very high percentage return of the questionnaire (87 per cent) indicates there is great interest in this topic. Many respondents expressed the opinion that it was very appropriate that this work was being done now when the ratio of applicants to places offered in physical therapy programmes is so high (i.e., approximately seven applicants for each place offered).

Two facts, in particular, emerge from the wealth of material collected. Over 80 per cent of the schools returning the questionnaire use the interview in their selection process. Secondly, all these schools count the interview in the total score for each candidate.

Many directors expressed dissatisfaction with the practice of using academic grades and psychological tests as the only criteria for admission. Consequently they were prepared to share their knowledge and expertise in the hope that concrete evidence of the value of the interview would emerge from this project.

Therefore, the following chapter will discuss an ideal method for the selection of physical therapy students, and the actual method used for the study at the University of Toronto in 1973.

CHAPTER III

SELECTION METHODS

The purpose of this study was to determine if the interview, used as a component of the admissions process, was a significant factor in the prediction of success in first year of the physical therapy programme at the University of Toronto. In this chapter the instruments used to select the subjects, (i.e., entrance GPA and the averaged scores of two interviews) and the instrument used to measure the successful completion of first year of the programme will be detailed.

A. Ideal Method of Selection

The ideal instrument for use in this study would have been a structured type of interview, scored on a specific rating scale and conducted by pairs of skilled and experienced interviewers. McMurray (73), and Carlson et al (18) have shown that the use of a structured interview form, composed of carefully selected questions to be asked of all candidates in the same way, produced greater reliability than the unstructured type of interview. The specific characteristics to be assessed such as, motivation, and ability to interact with people, would be clearly defined so that all interviewers would understand what they were measuring and would assess the same traits in each candidate in the same manner. It has been

shown by Webster (121), McMurray (73), and Sidney and Brown (100) that these characteristics can be successfully rated by persons who have been trained in the skills of interviewing. Expert interviewers who have had experience are also less susceptible to the bias of halo effect and the error of central tendency, than those without training and experience, Sidney and Brown (100), and Public Service Commission Report (85). Employing a small number of teams of interviewers who always work together would enhance the objectivity of the interviewers. This would also have the advantage of eliminating some of the biases described in Chapter II. The use of a specific rating scale, whereby each trait or question would be scored by individual points would further increase the objectivity of the interviewers, Maas (64).

While the ideal method of selecting candidates for a physical therapy programme might be used in an experimental or perfect situation, the format for this study was somewhat different in design. Several modifications to the ideal design were made in order to make full use of the existing personnel and other resources. All candidates had to be interviewed during the academic year as they were unavailable at other times. As the physical therapy academic faculty and the clinicians selected as interviewers already had full-time commitments in their respective fields, it was, therefore, impossible to choose a small number of pairs of interviewers who would always work together. Interviewing candidates was considered one of the responsibilities of the academic faculty, and this small group was readily available subject only to the restrictions of the

individual staff teaching timetables. However, the school had to rely on the willingness of volunteers from affiliating hospitals to form the group of clinical interviewers. Although all the interviewers had had experience in interviewing prospective employees, none had had formal training in specific interviewing techniques. Because of budgetary restrictions, professionally trained interviewers were not available, and perhaps would never be available in sufficient numbers to achieve the ideal design. Limited time and funding made it unrealistic to construct a detailed interview form with specific rating scale for scoring the results, and therefore, a modified semistructured format scored by an overall impression grade was substituted.

Modifications in the ideal method of selecting candidates for physical therapy training were essential because of insufficient numbers of trained personnel, lack of time, and budget restrictions. Therefore, a reasonable method was designed and is described in the following section.

B. Project Method

1. Description of the Subjects

The subjects for this study were a group of 57 candidates, who had been accepted into first year of the Physical Therapy Programme at the University of Toronto in September, 1973. They had been selected from a total population of 271 qualified candidates. By definition, a qualified applicant was one who:

- a. had successfully completed Grade XIII in Ontario or its equivalent in another province or country.
- b. had successfully completed (or was currently in) a first year general Arts and Science programme at the University of Toronto or at an equivalent university or college.
- c. was a Canadian Citizen or a landed immigrant.
- d. had filed an application by the deadline date of April 1st, 1973.

2. Selection of Instruments

Two criteria were used to select the successful candidates from the pool of qualified applicants:

- a. the cumulative Entrance GPA.
- b. the average of two individual interview scores.

A third instrument (i.e., First Year GPA) was chosen to measure the students' successful completion of the first year in the physical therapy programme.

a. Cumulative Entrance GPA

In order to achieve a common scoring system, all percentage grades and letter grades were converted to a simple four-point rating scale as follows:

| | | | | | | | |
|---|---|---|----|----|---|-----|----------|
| 4 | = | A | or | 80 | - | 100 | per cent |
| 3 | = | B | or | 70 | - | 79 | per cent |
| 2 | = | C | or | 60 | - | 69 | per cent |
| 1 | = | D | or | 50 | - | 59 | per cent |
| 0 | = | F | or | 0 | - | 49 | per cent |

Each full course was given a weighting of two, while each half course was weighted one. A full course was defined as three hours of lectures

per week (or three lectures and a three-hour laboratory session per week) for a full academic year (i.e., 30 weeks). A half course was one which included three lectures (or three lectures and a three-hour laboratory session) per week for one term of an academic year (i.e. 15 weeks).

The cumulative Entrance GPA for each applicant was derived by combining the final year high school average (Grade XIII Ontario, or equivalent) with all university grades obtained at the University of Toronto or at an equivalent university or college. To compute the Entrance GPA the following formula was used:

Candidates with One Year of University

Grade XIII = 25% of the total grade

First Year = 75% of the total grade

Candidates with Two Years of University

Grade XIII = 10% of the total grade

Each University year = 45% of the total grade

Candidates with Three Years of University

Grade XIII = 10% of the total grade

Each university year = 30% of the total grade

Candidates with Four Years of University

Grade XIII = 10% of the total grade

Each university year = 22.5% of the total grade

An example of how this was accomplished is found in Appendix 2.

b. Interviews

Each candidate was given two one-half hour interviews; one with a member of the physical therapy academic faculty, and one

with the director of a physical therapy department. A semistructured type of interview was used, in which topics for discussion were outlined but the interviewers had freedom to ask questions in any manner they wished. Two interview forms were designed; one to be used by the academic faculty, and the other to be used by the clinical physical therapy director. As can be seen in Appendix 2, the forms differ in some respects. The academic interview form contained the following headings:

1. an understanding of the physical therapy programme at the University of Toronto
2. personal attributes which included interest, presence, personal appearance, maturity, and motivation
3. swimming ability:- in order to meet the requirements for hydrotherapy
4. health (while each successful candidate was required to present a medical certificate, it was useful to note any obvious problems such as; physical disability, acne, allergies, etc.) This category was not counted in the overall score.
5. overall impression, which included a summary of the interviewer's impressions and a justification of the rating given to the candidate.

The clinical interview form was designed to elicit information on the following topics:

1. understanding of the profession, and included knowledge of and interest in the profession by the candidate
2. personal attributes which included interest, presence, personal appearance, maturity, and motivation
3. overall impression, which included a summary of the interviewer's feelings and a justification of the rating given to the candidate

The interviews were scheduled during a three-month period from March 1st to May 31st, 1973; they were planned in two-hour blocks so each interviewer saw a total of four applicants in any one period of time. Each candidate went from one interviewer to the other member of the interviewing team without any time lapse between interviews. Random selection could not be used as applicants were given appointments for interview only when and as their application files were complete.

1) Interviewers

Thirty interviewers were selected from two groups of physical therapists: a) five physical therapy academic faculty in the school whose timetables permitted their participation; and b) twenty-five physical therapy directors of departments in hospitals and clinics in the Toronto area who were interested in interviewing and were free to participate at the times when interviews were scheduled. All interviewers worked in teams of two, that is, one academic and one clinical person saw each candidate. It was not possible to keep the teams 'pure' in the sense that the same two persons always worked together, because the clinical interviewers could not afford the same amount of time that the academic interviewers could give to the project. So the teams were made up as and when academic and clinical persons were available.

All interviewers had had experience in interviewing either prospective candidates for physical therapy programmes or applicants for physical therapy positions in hospital departments or clinics.

No formal or informal training sessions in interviewing were held, however, each interviewer was given a copy of "Some Guidelines on Interviewing", which had been drawn up for this purpose, (see Appendix 2). The interviewers were not given any information about the candidates other than their names. At the completion of each interview the interviewer filled out the form and gave an overall impression grade, without consulting the other member of the team.

2) Scoring of the Interview

The grading of each interview was done on a five-point scale ranging from 3 = superior, through 2.5, to 2 = acceptable, 1.5, and 1 = unacceptable, and each candidate was given an overall score only. The ratings (from the two interviewers) were then averaged together to obtain the interview grade.

c. Composite Score

The interview grade was combined (with equal weighting) with the entrance GPA to arrive at the Composite Score for each candidate. On the basis of the ranking of the Composite Scores, the top 57 candidates were selected and offered places in the first year of the physical therapy programme. This then was the method by which the subjects were chosen for this project.

d. Weighted First Year GPA

At the end of the first year of the programme a weighted GPA was calculated for each of the 57 students. It was derived from

the grades of all the courses which the students had taken during the academic and clinical sessions. Each course was given a weighting according to: 1) the importance and relevance of the material to physical therapy; and 2) the number of hours in the course. For example, Anatomy 210 was weighted two because it was an eight-hour per week course and also because it was basic to all physical therapy techniques. The weighting of courses was done in the following manner:

| <u>Course</u> | <u>Weight Assigned</u> |
|-----------------------------|------------------------------------|
| Anatomy 210 | 2 |
| Kinesiology 210 | 1 |
| Physical Therapy 210 | 3 |
| Physiology 210 | 1 |
| Psychiatry 210S* | $\frac{1}{2}$ |
| Internship P.T. 210 | 1 |
| Electives (2 compulsory) | 2 |
| full course = 1 | |
| half course = $\frac{1}{2}$ | |
| Total Weights Assigned | <u>10 $\frac{1}{2}$</u> |

* S = half course.

For an example of the method of arriving at the Weighted First Year GPA see Appendix 2. In analysing the data this First Year GPA was used as the criterion of success.

3. Hypotheses

Three hypotheses were developed and tested:

1. There will be a high correlation between the Cumulative Entrance GPA and the Weighted First Year GPA.
2. There will be a relatively high correlation between the Academic Interview Score and the Weighted First Year GPA.

3. There will be no improvement in the correlation between the Cumulative Entrance GPA and the Weighted First Year GPA, when the Academic Interview Score is added to the Cumulative Entrance GPA.

4. Collection of the Data

The Cumulative Entrance GPA score and the composite Interview Grade for each student were collated for the Admissions Committee meeting in June, 1973, and were made available from the students records in the School of Physical Therapy at the University of Toronto. The Weighted First Year GPA scores came from the same source at the end of the academic session in 1974.

5. Statistical Procedures

Two statistical measures were used to analyse the data collected: the Pearson Correlation Co-efficient; and the Partial Correlation Technique. Correlations between each predictor variable and the criterion of success were calculated using the Pearson Co-efficient "r". The Entrance GPA was correlated with the Weighted First ^{Year} GPA; and the Academic Interview score was correlated with the Weighted First Year GPA. Because it had been impossible to always have the same interviewers work together in teams, only the Academic Interview scores were used in the statistical analysis. The test for Partial Correlation was used to determine if the correlation between the Entrance GPA and the Weighted First Year GPA was improved when the Academic Interview score was added to the Entrance GPA.

This chapter has described both the ideal and the project methods. The instruments of selection, i.e. the Cumulative Entrance GPA and the Interview, were discussed in some detail. The method of determining the First Year GPA was outlined and the statistical techniques employed to test for relationships were described. In the next chapter, the results will be presented and discussed in relation to the literature review.

CHAPTER IV

RESULTS AND DISCUSSION

A. Results

A total of 271 candidates applied to enter First Year of the Physical Therapy Programme at the University of Toronto in 1973. All applicants were interviewed by two persons, but for the purpose of this analysis the Academic Interview Score only was used (i.e., stimulus variable number one). The Entrance GPA was calculated by the method described in Chapter III, and a GPA Score was derived for each candidate (i.e., stimulus variable number two). A composite score was arrived at by averaging the Interview and the GPA Scores together. Those students with the highest composite scores were selected to enter the First Year of the Physical Therapy Programme, and therefore, 57 students were used in the statistical analysis. A Weighted GPA Score was calculated for each student on completion of the First Year of the Programme, and this score was used as the response variable with which each stimulus variable was related.

Hypothesis 1.

There will be a high correlation between the Cumulative Entrance GPA and the Weighted First Year GPA.

Hypothesis 2.

There will be a relatively high correlation between the Academic Interview Score and the Weighted First Year GPA.

The Pearson "r" correlation co-efficient equation was used to determine the degree of relationship between the Entrance GPA, Academic Interview Score, and the First Year GPA Score.

Table 17 shows these correlations.

Table 17

The Correlations Between the Response Variable and the Stimulus Variables

| Number of Students | Correlation Between First Year GPA and Entrance GPA | Correlation Between First Year GPA and Academic Interview Score |
|--------------------|---|---|
| 57 | .471* | .277** |

* $P > .001$

** $P > .05$

These results revealed that there were definite positive relationships between the First Year GPA, Entrance GPA, and the Academic Interview Score. However, correlations of .471, and .277, although statistically significant, were relatively low. Even so, it could be stated with

reasonable confidence, that a true relationship existed between the variables correlated, but the size of the correlation in each case represented only a minor degree of relationship. When the correlations were squared and then converted to per cent scores; i.e., $.471^2 = 22$ per cent; and $.277^2 = 7.7$ per cent; they illustrated the common variance which existed between the two correlated variables. This was interpreted to mean that the Entrance GPA measured only 22 per cent of the behaviour being assessed by the First Year GPA. In other words, about 78 per cent of the success at the end of First Year in the Physical Therapy Programme was due to factors other than Entrance GPA. Similarly, when the Academic Interview Score and First Year GPA were correlated, only 7.7 per cent of the success at the end of First Year was predicted by the Interview Score.

Because the resulting correlations were low, the two hypotheses were rejected with reasonable confidence.

Hypothesis 3.

There will be no improvement in correlation between the Cumulative Entrance GPA and the Weighted First Year GPA, when the Academic Interview Score is added to the Cumulative Entrance GPA.

The second statistical procedure used in the analysis was the Partial Correlation Technique. This test was employed to rule

out: a. the influence of the Entrance GPA on the First Year GPA, in order to define the role of the Academic Interview Score; and b. the influence of the Academic Interview Score on the First Year GPA, in order to define the role of the Entrance GPA. The results of these calculations are illustrated in Table 18.

Table 18

Partial Correlations Between Interview and First Year GPA Holding Entrance GPA Constant, and Entrance GPA and First Year GPA Holding Interview Score Constant

| Number of Students | Correlation Between First Year GPA and Academic Interview Score with Entrance GPA Held Constant | Correlation Between First Year GPA and Entrance GPA with Academic Interview Score Held Constant | Amount of Variance in First Year GPA Predicted by Interview and Entrance GPA |
|--------------------|---|---|--|
| 57 | .422* | .554* | .60 ² |

* $P < .01$

When the effect of the Entrance GPA was eliminated from the relationship, the partial correlation of First Year GPA and Interview Score was greater than the total value of .277 (Table 17), which was measured before excluding the effect of the Entrance GPA. The partial correlation resulting from a comparison of First Year GPA and Entrance GPA, when the effect of the Interview was removed was also greater than the total value of .471 (Table 17), as measured before

eliminating the effect of the Interview Score.

Table 19 illustrates the amount of variance in the First Year Performance which could be predicted by the Entrance GPA with the Academic Interview Score added to it.

Table 19

Common Variance Predicted from: Entrance
GPA; Increased by the Interview Score;
and the Unexplained Variance in the
First Year Performance

| Percentages | | | |
|------------------------------------|--|--|----------------|
| Variance Predicted by Entrance GPA | Increment of Interview Score Added to Entrance GPA | Variance Unexplained in First Year GPA | Total Per Cent |
| 22 | 14 | 64 | 100 |

The unexplained variance in the First Year Performance, which could not be accounted for by the predictions of the Entrance GPA and the Interview Score, was very high. This was due to factors which were not measured by the two stimulus variables in the selection process.

The hypothesis was rejected with some confidence, because there was a significant contribution made to the prediction of First Year Performance by the Entrance GPA when the Interview was added to it.

B. Discussion of the Results

It was somewhat surprising that the Entrance GPA Score did not correlate very highly with the First Year GPA. This Cumulative Entrance GPA has been an accepted measure in selection processes for medical schools and other professional training institutions for a long time. There is ample evidence of this as shown in Chapter II of this paper. On the other hand, if one were to look at the actual composition of that Entrance GPA and compare the courses studied with those in the First Year of Physical Therapy, several discrepancies become apparent.

The Entrance GPA was made up of a selection of courses which were not necessarily related to each other. For example; mathematics, biology, chemistry, english, and psychology are some of the most common subjects taken in high school and in first year university. Each of these subjects is an entity by itself, and a grade in mathematics cannot readily be compared with grades in english or in psychology. A different kind of learning goes into each separate course and there is little transference of learning from one subject to another. Furthermore, as mentioned in Chapter I, there is no longer a common standard for comparing grades achieved at the many different high schools and universities in Ontario. This means that a high GPA from one high school is not necessarily the same as a similar GPA from another school. The same parallel can be drawn between the GPA's from the various universities. The 57 students who were the subjects of this study came from 48 different high schools,

and they received their post-secondary education in seven different universities. It would therefore seem apparent that there were many standards of excellence as represented by the individual candidates.

All courses which comprised the First Year of the Physical Therapy Programme were graded using a common standard, i.e., that of the University of Toronto. The subjects in the First Year were, for the most part, interrelated one with the other. For example; material learned in Anatomy and in Physiology had to be used to understand Kinesiology, Physical Therapy Techniques, and their application to treatment. If a student received a poor grade in Anatomy his Kinesiology grade was also low, because a firm foundation in Anatomy was essential to his understanding of Kinesiology.

The First Year GPA was measuring not only academic excellence but also the ability of the students to apply material learned in one course to material being taught in other courses in the same year. The type of evaluation used in the First Year included written examinations, practical assessments of skills learned, and clinical evaluations of those skills when applied to patients. Generally, the type of assessment used for compiling the grades in the Entrance GPA was one of the various forms of written examination. Thus, it would seem reasonable to suggest that some other criteria of selection should be used (with Entrance GPA) to assess the qualities of candidates for the Physical Therapy Programme.

Most of the studies reported in the Review of the Literature were concerned with the admission of students to medical schools. The First Year GPA, used as the criterion of success in these studies, was based on the assessment of knowledge of pre-clinical subjects such as, Anatomy, Biochemistry, and Physiology. Therefore, academic competence was essential if the student was to be promoted. However, when students entered the clinical years in medicine, application of this basic material to clinical techniques was essential, and the Entrance GPA did not necessarily predict this application. Prywes (84), and Gough (43), among others demonstrated that the Entrance GPA had a very low correlation, when compared with the GPA at the end of the clinical years in medicine.

The Programme in Physical Therapy at the University of Toronto did not have pre-clinical years within the training, and students were asked to apply their knowledge of Anatomy and other basic medical subjects early in the first year. As this study was only concerned with the First Year Performance, it must be left for a future study to determine whether the correlations will change, when the Entrance GPA and Interview Scores are compared with the Second and Third Year GPA Scores. At the present time there is no documented evidence of physical therapy studies which would support or negate the results of this study.

The Academic Interview Score by itself accounted for only 7.7 per cent of the predicted behaviour measured by the First Year GPA. However, the literature discussed in Chapter II and in Chapter III clearly indicates that a structured interview form used by

skilled interviewers would result in much higher correlations, when the score was compared with a first year GPA. For the reasons discussed in Chapter III, a semistructured interview form was used, and an overall grading system was employed to score the interview. The factors which were being measured by interview were motivation, and relationships with other persons. The type of questions asked to elicit this information included: a. what type of extra-curricular activities, and summer employment had the candidate participated in prior to application to the Physical Therapy Programme; and b. what had the candidate done to learn about physical therapy, in order to justify his choice of career. The interviewers did not have specific directions for the assessment of the answers to these questions, even though they had the "General Guidelines for Interviewing Prospective Physical Therapy Students" (see Appendix 2). They, therefore, used their own set of values to grade the candidates.

The results detailed in the first section of this chapter show that the interview did not measure the most important qualities considered essential for a physical therapy student. These attributes would include; clarity of expression, organization, motivation, leadership, and the ability to reveal empathy. To assess the responses of the candidate and to determine whether he displayed these characteristics, a hypothetical question could be posed and the responses of the applicant could then be graded. It is a well known fact that a good question is half the answer, and therefore

such a question to draw out the candidate's reactions is one of the interviewing skills. An example of such a hypothetical question might be the following. 'You are chairman of a committee to organize a graduation celebration. The majority of the group want an informal picnic, but the minority, including yourself, would prefer a more formal type of party. How would you, as chairman, handle this situation?' The discussion which would follow would demonstrate the candidate's ability to; think quickly, articulate his reasons clearly, adapt to the hypothetical situation, be willing to make concessions, and demonstrate organizational skill. It would also bring out the applicant's integrity in interpreting the situation, and his leadership ability in controlling the committee. The reactions of the candidate would be evaluated on a structured interview form similar to the example shown in Appendix 1. The degree to which the applicant demonstrated these qualities would be graded individually on a scale of one to seven, with seven being the highest score.

The hypothetical question just described is only one of several which could be constructed. In a short half-hour interview it would have been impossible to ascertain everything about a candidate, nor was this the purpose of the interview. It was shown earlier in this chapter that when the interview was added to the Entrance GPA and compared with the First Year GPA the positive correlation was increased. This meant that the interview had some validity in the particular selection process described. However, many factors were not being predicted by this variable and so, with a view to enhancing the validity of the interview, the more structured

type of interview has been suggested.

The interviewers involved in selecting the candidates demonstrated various biases, which inhibited the best possible use of this selection tool. A lack of understanding of other cultures prevented the interviewer from being able to interpret the applicant's responses in a truly objective manner. Because of insufficient training in the skills of interviewing, the interviewers were prone to judge candidates using very subjective criteria. For example, when presented with an applicant who had an obvious physical disability, an interviewer gave heavier weighting to the disability than to other important qualities shown by the candidate. In reviewing this particular case, the interviewer admitted that he could not see beyond the disability and did not judge the candidate on these other qualities. While it is true that no student, admitted to the programme, could be given any special consideration because of a physical disability, the degree to which this problem coloured the interview and jeopardized the candidate's ultimate score was very apparent. With training, the interviewer would recognize his own biases and then be able to overcome them in an objective manner. Without a structured guide to follow and without training in the skills of drawing out an applicant's reactions, no interviewer could be expected to avoid the pitfalls inherent in judging any applicant on the basis of a half-hour face-to-face interview. These then, are some of the factors which would explain why the interview, as structured, only predicted 7.7 per cent of the behaviour measured by the First Year GPA.

While it was recognized that the Entrance GPA would assess the mental capacity of the candidates at the time of application, no attempt was made to evaluate any trend in the grades which constituted the Entrance GPA. If, over a period of three or four years in high school and in university, there had been a downward shift in an applicant's grades, some interpretation could be assigned to this fact. Perhaps the applicant had reached his level of achievement and could not cope with more advanced academic work; or perhaps, an illness or other personal problem explained the applicant's record. If, on the other hand, the applicant had steadily improved his grades over the period of time being considered, it might mean that he had found a reason for working and was now motivated to achieve his goal. Should such a candidate be penalized because he was a 'slow starter'? Further study in this area is needed in order to justify using this factor as part of the admissions process.

Psychological testing was not considered in the assessment of candidates for the Physical Therapy Programme in 1973. If it is recognised that no one criterion should be used in selection, then it is possible that personality and interest inventories could be valuable adjuncts to the admissions process. Grades, represented by the Entrance GPA, would evaluate the mental capacity of the individual candidates. Interview would assess the non-intellectual qualities which are essential in a qualified physical therapist. Personality inventories and other tests would add yet another dimension to the selection process. If, by using all these criteria, one were able to select the best possible candidates for physical therapy

training, then the health care needs of the community would be better served.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this study was to determine the role of the interview, when it was used as one of the components in the selection of physical therapy students. Because of the large number of candidates applying with excellent qualifications, it has become increasingly vital to develop a satisfactory method for selecting the best candidates for physical therapy.

The literature of North America concerning the interview used in the selection of applicants for positions in industry, and for admission of candidates to professional programmes in medicine and physical therapy was surveyed. Although much has been written, little conclusive evidence of the validity of the interview was found. Since almost no literature was discovered pertaining to the selection of physical therapy students, a questionnaire was designed and sent to all directors of basic physical therapy programmes in Canada and in the United States. The results of this survey revealed that the majority of schools used the interview as one component in the selection of physical therapy students. Disenchantment with the measurement of candidates' potential by pre-admission grades, and psychological tests, led those surveyed to a conviction that the interview had some validity. This parallels the opinion of experienced

physical therapists that academic brilliance is not always the best predictor of competent clinical physical therapists.

The method of selecting students to enter the First Year of the Physical Therapy Programme, at the University of Toronto, in 1973, was analysed with a view to determining the role of the interview in this process. The criteria used for selection were the Entrance GPA, and two personal interviews for each candidate: one with a member of the academic faculty in the school; and one with a director of a physical therapy department in the Toronto area. A Weighted GPA Score, calculated at the end of the First Year in the Programme, was used as the criterion of success with which the selection variables were compared.

Three hypotheses were developed to test the relationships of the two stimulus variables.

1. There will be a high correlation between the Cumulative Entrance GPA and the Weighted First Year GPA.
2. There will be a relatively high correlation between the Academic Interview Score and the Weighted First Year GPA.
3. There will be no improvement in correlation between the Cumulative Entrance GPA and the Weighted First Year GPA, when the Academic Interview Score is added to the Cumulative Entrance GPA.

The results revealed that there were positive correlations between:

1. the Entrance GPA and the First Year GPA.
2. the Academic Interview Score and the First Year GPA.
3. the Entrance GPA with the Academic Interview Score added to it, and the First Year GPA.

Although the degree of relationship between the stimulus variables and the response variable was of a minor nature, all results were statistically significant, and therefore, the hypotheses were rejected with reasonable confidence.

Two conclusions can be drawn from this study. First, evidence from the results supports the continued use of the interview as a component in the selection of Physical Therapy Students at the University of Toronto. The fact that the correlation between the Interview and the Weighted First Year GPA was low, meant that too many factors, assessed by the First Year GPA, were not predicted by the Admissions Interview. The semistructured type of interview used made it difficult to achieve a common standard for the assessment of the qualities of all candidates. Therefore the type of interview, used in 1973, should not be continued as a part of the process for selecting Physical Therapy Students at the University of Toronto. There is strong support in the literature for the use of a structured form of interview with a specific scale for rating the various qualities of the applicants. To complement the use of this type of form, training of the interviewers in the skills of interviewing is mandatory. The faculty who were involved in the selection process in 1973, have voiced their own needs for more specific guidelines and training, so they would become more effective in their interviewing role.

Secondly, because the Entrance GPA achieved a reasonable correlation with the Weighted First Year GPA, it is apparent that it

can be a valid element in the selection process. It is recognised that this Entrance GPA does measure the mental capabilities of the candidates who wish to enter the Physical Therapy Programme, and providing it is not given too heavy a weighting in the Composite Score of each applicant, it should continue to be used. However, some consideration should be given to those students who are 'slow starters' and who have demonstrated their motivation toward this Programme. Further study is necessary in this area, in order to demonstrate that this is a valid assumption.

No generalizations can be made from this project as there were too few subjects involved. It is suggested therefore, that a follow-up study of these same subjects should be carried out, correlating the Academic Interview Score with the Second and the Third Year Weighted GPA Scores. It is postulated that higher correlations will result and that a greater number of factors, assessed by the two GPA Scores, will be accounted for by the Admissions Interview Score. There is evidence to support this extension of the present study in the research described by Conger and Fitz (23), Prywes (84), and Trotter and Fordyce (117).

Because of a firm belief in the value of the Admissions Interview for selecting students for physical therapy, the present study was undertaken. What is now clear is that further research is needed; to test a structured form of interview, to train interviewers in the skills of interviewing, in order to increase the reliability and the validity of the Selection Interview.

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APPENDIX 1.

a. Letter and Questionnaire for Data Collection for Survey of Physical Therapy Schools.

b. Examples of Interview Forms:

Unstructured Interview Form.
Semistructured Interview Form.
Structured Interview Form.

c. List of Specific Tests Used in the Selection Process by Some Physical Therapy Schools in North America.

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE
DEPARTMENT OF REHABILITATION MEDICINE

Thursday, January 9th, 1975

256 McCAUL STREET
TORONTO M5T 1W5

Dear

Presently I am on sabbatical leave studying to complete my Master of Science Degree at McGill University. I am involved in a project on the Use of the Interview as one part of the Admission Process in choosing candidates to enter a professional educational programme in physical therapy.

A search of the literature has revealed virtually nothing on this particular topic related to physical therapy. Therefore, I am doing a survey of Schools of Physical Therapy to gather information concerning the Use of the Interview in selecting students to enter a physical therapy programme.

I would appreciate it if you would complete the attached questionnaire and return it to me at your earliest convenience in the enclosed envelope. If you do not use interviewing techniques in your school, I would still appreciate it if you would answer question three and return the form to me. Any other information on this subject which you have, and are willing to share with me, would be very welcome. The material I receive will be tabulated and the name of your school will not be used. Please be assured that any information received will be held in confidence.

Thank you very much for taking the time to complete and return the questionnaire to me.

Yours sincerely,

Ruth O.F. Bradshaw,
Associate Professor,
Director of Physical Therapy
(on sabbatical leave)

Attach.

QUESTIONNAIRE - CONCERNING THE USE OF THE INTERVIEW IN THE SELECTION
OF CANDIDATES FOR PHYSICAL THERAPY TRAINING

NAME OF SCHOOL: _____

MAXIMUM NUMBER OF PLACES AVAILABLE IN 1973 _____: IN 1974 _____:

APPROX. NUMBER OF CANDIDATES WHO APPLIED IN 1973 _____: IN 1974 _____:

NUMBER OF CANDIDATES REGISTERED IN 1973 _____: IN 1974 _____:

1. Do you use the Interview as part of the Admissions Process for
selection of candidates to enter your school? YES _____: NO _____:

2. If the answer to question 1 is YES:

a) HOW IS THE INTERVIEW CONDUCTED?

i) Individual Interviews

1. One interview ONLY with each candidate: _____
Number of interviewers: _____

2. Two interviews with each candidate: _____
Number of interviewers per interview: _____

ii) Group Interviews

1. With several candidates at one time: _____

2. With several interviewers and one candidate at the
same time: _____

iii) Other Method (please specify): _____

b) WHO DOES THE INTERVIEWS?

i) Academic physical therapy faculty: _____

ii) Clinical physical therapists: _____

iii) Undergraduate physical therapy students: _____

iv) Other persons (please specify): _____

c) WHAT IS THE PURPOSE OF THE INTERVIEW?

i) Measurement of attitudes and motives: _____

ii) Measurement of ability to interact with people: _____

iii) Other purposes (please specify): _____

d) WHAT TYPE OF INTERVIEW IS USED?

i) Structured: _____

ii) Semistructured: _____

iii) Unstructured: _____

iv) If you use an interview sheet, would you please enclose
one.

e) HOW IS THE INTERVIEW SCORED?

- i) By individual points: _____
- ii) By overall impression: _____
- iii) By other method (please specify): _____

f) ARE ALL CANDIDATES INTERVIEWED? YES: _____ NO: _____

g) IF THE ANSWER TO (f) IS NO:

i) What percentage or number of candidates are interviewed? _____

ii) How are these candidates selected for interview? _____

h) WHAT OTHER CRITERIA ARE USED IN THE ADMISSIONS PROCESS?

- i) Grade Point Average: _____
- ii) Psychometric Tests (please specify): _____
- iii) Biographical letter: _____
- iv) Letters of Reference: _____
- v) Other criteria (please specify): _____

i) WHAT WEIGHTING IS GIVEN TO THE INTERVIEW in establishing the candidate's TOTAL SCORE for selection? _____

3. IF YOU DO NOT USE THE INTERVIEW AS PART OF THE ADMISSIONS PROCESS:

Please describe briefly the process for selection of candidates for physical therapy used in your school: _____

Please return to: Miss R.O.F. Bradshaw,
 School of Physical & Occupational Therapy,
 McGill University,
 3654 Drummond Street,
 Montreal, Quebec, Canada,
 H3G 1Y5.

9/1/75.

SAMPLE OF UNSTRUCTURED INTERVIEW FORM**GUIDELINES FOR INTERVIEW INFORMATION**

1. What was your impression of the candidate's personal appearance and was it appropriate for the interview situation?
2. What were the individual's reactions to the interview situation?
3. How well did you feel that this individual formulated and conveyed ideas?
4. Do you feel that the candidate has a good understanding of what physical therapy really is?
5. Do you feel that the individual's motives for entering physical therapy are sound ones?
6. What was your personal reaction to the individual? (Liked, disliked, neutral or what)
7. In a field of highly competitive candidates, how strongly would you support this individual to a selections committee?

SAMPLE - SEMISTRUCTURED INTERVIEW FORM

Rating Form for Interview of Physical Therapy Applicants

Applicant's Name _____

Interviewer's Name _____ Date of Interview: _____

Rate on scale 1 through 5 (low to high)

Rating

1. General Appearance: neatness, cleanliness,
note physical limitations.

Comments:

2. Communication Skills: ability to present ideas,
logical thought, continuity, diction, grammar,
mannerisms.

Comments:

3. Self Confidence: timid, anxious, overbearing.

Comments:

4. Motivation: knowledge of profession, experience
in profession or related areas, human service,
research, teaching, goals.

Comments:

Summary of Interview:

Recommendation: _____ 1. Candidate for admission

_____ 2. Hold for

_____ Reconsideration (specify) _____

_____ Additional Information (specify) _____

_____ 3. Reject (specify) _____

SAMPLE OF STRUCTURED INTERVIEW FORM

PHYSICAL THERAPY INTERVIEW FORM

FULL NAME OF STUDENT _____

NAME OF INTERVIEWER _____

DATE OF INTERVIEW _____

Please rate the student on a continuum concerning the presence of the following items:

| | | | | | | | | |
|--|--|--|--|--|--|--|--|---------------------------------------|
| well informed regarding physical therapy | | | | | | | | uninformed regarding physical therapy |
| animated facial experssion | | | | | | | | expressionless |
| appropriate eye contact | | | | | | | | inappropriate eye contact |
| effective verbal communication | | | | | | | | ineffective verbal communication |
| responds appropriately | | | | | | | | responds inappropriately |
| well groomed | | | | | | | | poorly groomed |
| likable | | | | | | | | not likable |
| takes initiative | | | | | | | | lacks initiative |
| interesting | | | | | | | | uninteresting |
| realistic | | | | | | | | unrealistic |
| poised | | | | | | | | not poised |
| considerate | | | | | | | | inconsiderate |
| organized | | | | | | | | disorganized |
| flexible | | | | | | | | rigid |
| mature | | | | | | | | immature |
| self-confident | | | | | | | | lacking self-confidence |

Please NOTE any exceptional characteristics of the interviewee:

LIST OF SPECIFIC TESTS USED IN THE SELECTION PROCESS
BY SOME PHYSICAL THERAPY SCHOOLS
IN NORTH AMERICA

1. Allied Health Professions Admissions Tests.
2. American College Test.
3. Bennett Mechanical Comprehension Test.
4. California Psychological Inventory.
5. College Entrance Examinations Board.
6. Davis Reading Test.
7. Dominion Test of Learning Capacity.
8. Edwards Personal Preference Schedule.
9. Graduate Record Examination.
10. Guilford-Zimmerman Temperment Survey.
11. Minnesota Multiphasic Personality Inventory.
12. Nelson Denny Reading Test.
13. Otis Quick Scoring Mental Ability Test.
14. Scholastic Aptitude Test.
15. School and College Ability Test.
16. Sequential Test of Educational Progress.
17. Sixteen Personality Factor Questionnaire.
18. Strong Vocational Interest Blank.
19. Watson-Glaser Critical Thinking Appraisal.

APPENDIX 2.

- a. Example of Method of Calculation of the Composite Score.**
- b. Academic Interview Form.**
- c. Clinical Interview Form.**
- d. Some Guidelines on Interviewing.**
- e. Example of Calculation of Weighted First Year GPA.**

UNIVERSITY OF TORONTO
DEPARTMENT OF REHABILITATION MEDICINE

NAME: _____

STUDENT #: _____

| Course Name and Number | Acad. Yr. | Univ. or H.S. | Act. Gr. | Conv. Value | Course Wt. | Acad. Pts. | Academic Average Calculations |
|---------------------------|--------------|---------------------|-------------|----------------|---------------|---------------|-------------------------------------|
| Eng. | XIII | H.S. | II | 3 | 2 | 6 | |
| Fre. | | | II | 3 | 2 | 6 | |
| Mat. | | | III | 2 | 2 | 4 | |
| Chm. | | | III | 2 | 2 | 4 | |
| Bio. | | | III | 2 | 2 | 4 | |
| TOTALS: | | | | | 10 | 24 | 24/10 = 2.4 |

| | | | | | | | |
|----------|---|------|-----|---|----|----|-------------|
| Ant. 100 | I | UofT | PWH | 1 | 2 | 2 | |
| Ast. 100 | | | III | 2 | 2 | 4 | |
| Bio. 100 | | | III | 2 | 2 | 4 | |
| Psy. 100 | | | III | 2 | 2 | 4 | |
| Zoo. 200 | | | II | 3 | 2 | 6 | |
| TOTALS: | | | | | 10 | 20 | 20/10 = 2.0 |

$$\begin{aligned}
 \text{Cumulative GPA} &= 2.4 \times .25 = 0.6 \\
 &= 2.0 \times .75 = 1.5 \\
 &= 2.1
 \end{aligned}$$

$$\text{Interview Scores} = 2, 2: \text{Average} = 2.$$

$$\begin{aligned}
 \text{Composite Score} &= (2.1 \times 0.5) + (2 \times 0.5) \\
 &= 1.05 + 1 \\
 &= 2.05
 \end{aligned}$$

COURSE WEIGHT = Full courses weighted 2.
Half courses weighted 1.

ACTUAL GRADE = I = A
II = B
III = C
PWH = D

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE
DEPARTMENT OF REHABILITATION MEDICINE

ACADEMIC INTERVIEW

INTERVIEW FOR APPLICANT FOR B.Sc.(P.T.) PROGRAMME

NAME: _____ DATE: _____

Surname First Names

1. UNDERSTANDING of the Programme as outlined:

2. PERSONAL ATTRIBUTES: (Interest, Presence, Personal Appearance, Maturity, Motivation)

3. SWIMMING ABILITY: (What certificates does the candidate have?)

4. HEALTH: Allergies, Obvious Problems, etc.

5. OVERALL IMPRESSION: _____

6. RATING: 3 = Superior; 2 = Acceptable; 1 = Unacceptable.

(use over page if necessary)

SIGNATURE OF INTERVIEWER: _____

UNIVERSITY OF TORONTO

FACULTY OF MEDICINE

DEPARTMENT OF REHABILITATION MEDICINE

CLINICAL INTERVIEWINTERVIEW FOR APPLICANT FOR B.Sc.(P.T.) PROGRAMME

NAME: _____ DATE: _____

Surname

First Names

1. UNDERSTANDING of the Profession: _____

2. PERSONAL ATTRIBUTES: (Interest, Presence, Personal Appearance, Maturity, Motivation)

3. OVERALL IMPRESSION: _____

4. RATING: 3 = Superior; 2 = Acceptable; 1 = Unacceptable.

(Use over page if necessary)

SIGNATURE OF INTERVIEWER: _____

SOME GUIDELINES ON INTERVIEWING PROSPECTIVE PHYSICAL THERAPY STUDENTS

Each interviewer performs a role in determining the composition of the physical therapy student body. It is he who meets the applicant and who judges him as a person. It is he who makes the assessment of character, personality and motivation that enable the Admissions Committee to choose among the many candidates who have good-to-excellent records and who may, on paper, seem equally attractive.

There is no simple formula for successful interviewing. No checklist could possibly cover all contingencies. The experienced interviewer is aware that any of hundreds of matters MAY be relevant. He depends upon his own sensitivity, responsiveness and judgement to determine what can be taken for granted and what bears exploring in each case. He will have developed his own methods for eliciting pertinent information and forming clear impressions, and he will be flexible enough to deal sympathetically with many different individuals. He realizes that there is a limit to how thorough a twenty-five minute interview can be and he will have confidence in his subjective impressions.

The interviewer's most important task is to characterize the applicant, to convey in writing what he is like as a person, to place in the record what was not there before, to be the eyes of the Admissions Committee.

FOR EXAMPLE:

What does the applicant look like? Is he fat or skinny, unusually short or tall? Does he look healthy? What about his dress, his posture, his diction?

Is he unusually nervous? Do you succeed in putting him at his ease? Does he respond thoughtfully and candidly to your questions or does he seem to have rehearsed his answers ahead of time?

Is his motivation for physical therapy convincing? How long has he been interested in physical therapy? Is his choice of career his own? What does his family think about his choice?

Has he ever worked in a hospital? Are his ambitions lofty and, if so, is he prepared to deal with real people in an imperfect world?

Is he imaginative? Does he have a sense of humour?

Is he mature? Are his attitudes towards his family, his peers and society appropriate and healthy?

Are his interests varied or specialized, diffuse or nonexistent? Any special enthusiasms or hobbies? Are his tastes conventional or do they reflect his interests?

The main part of the interview write-up should be devoted to the above. The interviewer can express his opinion on the applicant's suitability for acceptance to this school. He must bear in mind, however, that he may not have a very clear idea of the quality of the other candidates under consideration by the Admissions Committee.

RECOMMENDATIONS:

1. Your aims should be to develop new information. Do not recapitulate grades and courses in your report.
2. Short pithy comments are needed - not golden prose.
3. An interview should last about 25 minutes. It should aim at making the tense student relax, and send him away with a feeling that the interview was not hurried or superficial, but gave him ample opportunity to present his case.
4. The applicant's questions concerning - dates of decisions re admissions, school policies, finances, housing, etc., should be referred to the Director of Physical Therapy, Department of Rehabilitation Medicine, University of Toronto.
5. Give NO indication to the student whether he is considered highly acceptable or marginal. The Admissions Committee will make the final decision on this matter, and it is unfair to the candidate if he is given any indication of his status at the end of the interview.
6. Stick to the areas which are on the interview sheet given to you so that no duplication will appear in the interviews.
7. You are one of two interviewers - one will be an academic physical therapy faculty member, and the other will be a clinical physical therapist.
8. The results of the interview will be used in conjunction with the academic grades presented, and motivation and interest shown by the candidate on the application form.
9. You will be notified how your candidates have done on interview and in the other areas mentioned, following the final selection.
10. The Admissions Committee is very grateful for your co-operation and help, and would appreciate your unbiased and objective evaluation of each student you interview.

April, 1973.

Example of a Weighted First Year GPA Score

| <u>COURSES</u> | <u>GRADE</u> | <u>WEIGHTING</u> | <u>TOTAL</u> |
|-----------------------|--------------|------------------------|--------------|
| Anatomy 210 | 3 | 2 | 6 |
| Kinesiology 210 | 4 | 1 | 4 |
| Physical Therapy 210 | 3 | 3 | 9 |
| Physiology 210 | 4 | 1 | 4 |
| Psychiatry 210S | 2 | $\frac{1}{2}$ | 1 |
| Electives - Ant. 241 | 4 | 1 | 4 |
| - Ast. 200F | 2 | $\frac{1}{2}$ | 1 |
| - Psy. 204S | 4 | $\frac{1}{2}$ | 2 |
| Internship - P.T. 210 | 3 | 1 | 3 |
| | | <hr/> 10 $\frac{1}{2}$ | <hr/> 34 |

Weighted Grade-point Average = $34/10\frac{1}{2} = \underline{\underline{3.24}}$

