

IDENTIFYING STUDENT-ORIENTED FACULTY

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There is general agreement that excellence in teaching involves both content and process dimensions. According to Gorman (1969), content expertise refers to the teacher's knowledge and command of subject matter. Expertise in the process dimension refers to the teacher's skill in establishing working relationships with students that activate learning. While theorists and educators place different emphasis and priority on these dimensions, this research addressed the process dimension of teaching. Specifically, the purpose of the study was to establish the validity of the Teacher Perceiver Interview as an instrument to identify nursing teachers who develop rapport with students, and who activate students to become involved in the learning process. Should the Teacher Perceiver Interview have predictive value, it has potential as a useful tool in the selection and development of nursing faculty.

The process dimension of teaching, mentioned earlier, receives considerable commentary in nursing education, with the need for positive and supportive teacher-student relationships well documented in the nursing literature. In her review of student stress in nursing, McKay (1978) reports that nursing education is a stressful and anxiety-provoking experience for students, and concludes by emphasizing the need for faculty to establish positive and supportive interactions with students. Gunter (1969) also urges nursing educators to establish positive teacher-student relationships contending that "The nursing student, through this experience of an understanding relationship with faculty, may be enabled to establish an understanding relationship or therapeutic relationship with her patients" (p.242). In support of the concept that nursing is a humanistic, helping profession, the essence of which is care and caring, Watson (1981) points to the paramount importance of a learning climate in which the student experiences these conditions. Such experience is a precursor to the student's internalization of the humanist values that are basic to the profession of nursing (Benoliel, 1983; Ellis, 1970; King & Gerwig, 1981; Watson, 1981).

Focus of the Study

Positive teacher-student relationships have value, then, for the student, the client, and the profession of nursing. One problem that emerges is that of finding an objective, non-threatening, and inexpensive method whereby the orientation of nursing teachers

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toward students can be assessed. An instrument designed for this purpose, the Teacher Perceiver Interview (TPI), was developed to provide information about the teacher's relations with students, as reflected in responses to interview questions that deal with a teacher's beliefs and values, relating skills, and strategies chosen to activate learning (Selection Research, 1977). More specifically, the TPI consists of 60 structured interview questions, scored according to particular criteria, and an interview format that is standardized. While the instrument has been validated with educators in school systems, it has not been researched with nursing educators.

To determine the validity of the TPI, two criterion measures were selected: student ratings and school of nursing director ratings of the teacher. The following questions provided the focus for hypothesis development:

1. Is nursing instructor performance on the TPI related to ratings by the instructor's students and by the director of the school of nursing?
2. Is there a relationship between the ratings of directors and students for nursing instructors?
3. Is nursing instructor performance on the TPI rated differently by students and directors?

It was hypothesized that nursing instructor scores on the TPI would correlate positively and significantly with student ratings, and with director ratings of the instructors. This assumption was based on the results of ten studies conducted in various school districts in the United States that validated the TPI with student and school administrator ratings. A summary of these studies revealed an average correlation of $+0.37$ between teacher score on the Interview and student ratings, and $+0.41$ between teacher score and administrator ratings (Savage, 1982). It was further hypothesized, on the basis of Shillig's (1975) study, that a positive and significant relationship would occur between student and director ratings of nursing instructors.

A secondary set of questions was formulated for the purpose of investigating the relevance of particular nursing instructor characteristics to instructor performance on the TPI. The questions were the following:

- I. Do nursing instructors in different clinical specialties perform differently on the TPI?
- II. Do nursing instructors teaching in different year levels perform differently on the TPI?
- III. Is nursing instructor age, teaching experience, nursing experience and education related to performance on the TPI?

With regard to the first question, an assumption was made that those instructors teaching in the specialty of mental health would achieve higher scores in the interview; the premise being that relationship skills are emphasized in this specialty. For the second question, it was postulated that instructors teaching in first year would score higher in the interview. The premise for this assumption was drawn from a study by O'Shea and Parsons (1979) in which findings suggested that faculty in a baccalaureate program appeared to offer a more supportive and understanding relationship to junior students than to senior students. In regard to Question III, an assumption was made that the nursing instructor's teaching experience, nursing experience, and education (each of which would probably correlate with age), would be related to the instructor's effectiveness with students and, as a result, these variables would show a positive correlation to the instructor's Interview score. There did not appear to be confirmation or rejection of this premise in the nursing literature.

Method

Sample

Forty-eight nursing instructors, randomly selected from three hospital-affiliated diploma nursing programs in Alberta, participated in the study. These instructors met the following criteria: they taught in both clinical and classroom settings, and they had taught at least twenty students in the program. They may be described as female, registered nurses, who were between the ages of 23 and 50 years, who had one to eighteen years of nursing experience, and who had one to nineteen years of teaching experience. Forty-five instructors had baccalaureate degrees, and three instructors had, as their highest level of preparation, diplomas in nursing.

Other participants in the study included 463 nursing students, representing 91 percent of the potential number of students who could complete questionnaires with regard to the 48 instructors. Also included in the study were the three school of nursing directors who completed questionnaires on each of their instructors involved in the study. All three had been in their positions for over five years.

Instruments

The Teacher Perceiver Interview consists of 60 open-ended interview questions which are divided into 12 theme categories. For each question a predictive response (as designated in the scoring key and paraphrased by the subject) is scored 1, and a nonpredictive response is scored 0. Minor adaptations were made in the TPI, 1977 edition, to reflect a nursing context. The adapted version was pilot-tested with six nursing instructors.

The reliability of the TPI has been established, with a test-retest

correlation coefficient of .95, in a sample of 30 teachers. The inter-rater reliability among trained scorers has been 85 percent. Internal consistency coefficients, based on the Kuder-Richardson formula, produced coefficients of .76 (Muller, 1978; Selection Research, 1977).

Predictive validity of the TPI has been established using, as external criteria, student and administrator ratings of the interviewed teachers. In ten studies the correlations between teacher TPI score and student ratings have ranged between +.11 and +.50, with five of the ten coefficients significant at the .05 level. Correlations between teacher TPI score and administrator ratings have ranged from +.12 to +.62 in six studies, with four of the six coefficients significant at the .05 level (Savage, 1982).

The student and director questionnaires, virtually identical, contain items of teacher behaviour that correspond to the 12 themes of the TPI (Selection Research, 1977). The student questionnaire, composed of 40 items that were constructed on a five-point rating scale, allows possible scores between 40 and 200. The director questionnaire, adapted from the first 24 items of the student questionnaire and constructed on a five-point scale, provides for a range of scores from 24 to 120. Both questionnaires were adapted, minimally, for use with nursing students and nursing school directors.

Procedure

Ethical clearance was received from each of the participating institutions, and informed consent was obtained from each participant in the study. Each of the 48 nursing instructors was interviewed with the TPI by the investigator who had been trained in the use of the instrument. Each interview followed standardized procedure, took approximately one hour, and was tape-recorded for the purpose of later scoring. Inter-rater reliability was established on 12 randomly selected tapes. There was .89 percent agreement in scoring between the investigator and another trained rater.

Four hundred and sixty-three students completed questionnaires on the interviewed instructors. These questionnaires were administered by the investigator in group settings. The three nursing school directors completed a questionnaire for each of their instructors who had been interviewed.

Results and Discussion

Questions 1 and 2

In Table 1, the relationship between nursing instructor TPI scores and student mean rating scores of the instructors is shown by a positive Pearson correlation coefficient of +.24, significant beyond the .05 level. Also in Table 1, the relationship between nursing

instructor TPI scores and nursing school director ratings is shown by a positive Pearson correlation coefficient of .41, significant beyond the .01 level.

On the basis of the results the TPI is demonstrated to be a valid instrument for identification of nursing instructors who develop positive teacher-student relationships. While the correlation coefficients may appear low to moderate in magnitude, Anastasi (1976) confirms that an instrument may appreciably improve prediction if it shows any significant correlation with the criterion, however low (p.166).

Also evident in Table 1 is the positive relationship between director and student ratings of nursing instructors which is confirmed by a positive Pearson correlation coefficient of .45, significant beyond the .01 level. This finding supports that of Shillig (1975), and offers strength for the argument that students are capable of evaluating certain teacher behaviour.

Question 3

Nursing instructors whose scores on the TPI were 24 or less were categorized as being in the less effective range, while those with scores of 25 and above were categorized in the effective range. The criteria for determining these ranges are reported in the TPI manual (Selection Research, 1977). Presented in Table 2 are the results of the t-test which show that a difference exists that is significant beyond the .01 level between the mean scores of student ratings for the two categories of nursing instructors. Students gave a significantly higher rating to instructors whose scores on the TPI were in the effective range.

Again, using the same categories of performance, the results of the t-test, reported in Table 3, indicate a significant difference, beyond the .01 level, between the mean scores of director ratings for the two categories of nursing instructor performance. Directors rated significantly higher the instructors whose scores on the TPI were in the effective range. Further evidence for the validity of the TPI is provided by these findings.

Secondary questions

Nursing instructors predominantly taught in one of the following clinical specialties: Medicine, Mental Health, Obstetrics, Pediatrics, or Surgery. Presented in Table 4 are TPI results in relation to nursing instructor clinical specialty. An analysis of variance revealed no significant difference between the mean scores on the TPI of instructors in the five clinical specialties. The assumption that instructors teaching in Mental Health, which has a focus on the development of therapeutic relationships, would perform better on the TPI was not supported.

Table 1

Coefficients of Correlation Between Teacher Perceiver Interview (TPI) Scores and Ratings of Nursing Instructors and Students

	Mean	Standard Deviation	Correlation to	
			Student Rating	Director Rating
Instructor TPI Scores	25.33	5.66	.24*	.41**
Student Rating	155.19	12.56		.45**
Director Rating	96.81	13.22		-

* Significant beyond $p < .05$
 ** Significant beyond $p < .01$

Table 2

t-test On Student Rating Means for Nursing Instructors With Teacher Perceiver Scores in Two Ranges

Instructor		Student	Standard	Pooled Variance Estimate		
TPI Score	N	Mean	Deviation	t Value	df	2-tail prob.
≤ 24	18	149.04	12.46	-2.82	46	.007*
≤ 25	30	158.89	11.26			

* Significant beyond $p < .01$

Table 3

t-test On Director Rating Means for Nursing Instructors With Teacher Perceiver Scores in Two Ranges

Instructor		Director	Standard	Separate Variance Estimate		
TPI Score	N	Mean	Deviation	t Value	df	2-tail prob.
≤ 24	18	89.22	14.79	-3.09	26.24	005*
≤ 25	30	101.36	9.89			

* Significant beyond $p < .01$

Predominantly, nursing instructors taught in either the first, second, or third year of the nursing programs. As reported in Table 5, the highest mean score on the TPI was obtained by first year instructors, while the lowest mean score was attained by third year instructors.

For the analysis of the data, in Table 6, the Scheffe procedure was used to compare groups in order to locate the differences which contributed to the analysis of variance results. The .10 level of significance was selected to counteract somewhat the rigorous nature of the Scheffe test (Ferguson, 1976, p.297). A difference exists, significant at the .10 level, between the TPI mean scores for first and third year instructors. First year instructors scored significantly higher on the Interview than did those instructors teaching in third year. Possibly instructors who teach first year students are more attuned to the needs of beginning students, creating a more involved and supportive relationship with their students. Or, as O'Shea and Parsons (1979) point out, third year instructors may see senior students as more independent and confident, and as requiring less support.

As indicated in Table 7, the mean for the instructor age is 34 years; for teaching experience, 4 years; and for nursing experience, 6 years. The relationship between instructor scores on the TPI and age is shown in Table 7 by a Pearson correlation coefficient of $-.27$. The relationship between TPI score and years of teaching experience is demonstrated with a Pearson correlation coefficient of $-.26$. Both of these coefficients are significant at the .05 level.

A partial correlation applied to the data revealed that the relationship is accounted for by age. It can be said, then, that as the age of nursing instructors increases there tends to be an association with lower scores on the TPI. A number of speculative questions arise in regard to this finding. Do younger instructors identify with the needs of students whose ages are closer to their own? Do older instructors fall into routines and become less attentive to the individuality of each student, seeing students as a group rather than as persons? Finally, are younger instructors better educated in the process dimension of teaching, and do they place a higher value on rapport with their students?

Instructor response to interview

At the conclusion of each interview, the investigator asked the following question: "Tell me, how did you feel about this interview; how did you feel about answering all of these questions?" The statement of each instructor was tape recorded and later analyzed. A review of the tabulation of the responses revealed the following: 1. There were no negative statements about the content or process of the interview. 2. The interview was described as comfortable, non-threatening, relaxed, pleasant, enjoyable, worthwhile, helpful, interesting, useful, and a learning experience. 3. The questions

Table 4

**Teacher Perceiver Interview Characteristics of Nursing Instructors
Instructors in Different clinical Specialty Groups**

Clinical Specialty	N	Mean	Teacher Perceiver Interview		
			Standard Deviation	Low Score	High Score
Medicine	16	24.75	6.92	12	35
Mental Health	7	27.00	8.81	17	43
Obstetrics	6	26.00	2.52	23	29
Pediatrics	7	25.14	3.71	20	31
Surgery	12	24.91	4.01	18	30

Table 5

**Teacher Perceiver Interview Mean Scores and Standard Deviations
for Nursing Instructors in Different Year Levels**

Year Level	N	Mean	Standard Deviation
First	13	27.84	4.68
Second	23	25.43	6.19
Third	12	22.41	4.41

Table 6

**Analysis of Variance Between Teacher Perceiver Interview Mean
Scores for Nursing Instructors in Different Year Levels**

Source of Variance	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between Groups	184.39	2	92.19	3.13	.05*
Within Groups	1322.25	45	29.38		
Total	1506.65	47			

* Significant beyond $p < .10$ (Scheffe Procedure)

Table 7

Coefficients of Correlation Between Teacher Perceiver Interview Scores and Nursing Instructor Characteristics (N=48)

	Mean	Standard Deviation	Correlation to		
			Age	Teaching Experience	Nursing Experience
TPI	25.33	5.66	-.27*	-.26*	-.18
Age	34.06	6.58	-	.54	.51
Teaching Experience	4.22	4.23		-	-.13
Nursing Experience	6.02	4.02			

* Significant beyond $p < .05$

were described as thought-provoking; important to teaching; helpful in exploring teaching beliefs, practices, and new ideas; practical, pertinent, and applicable; beneficial in the evaluation of the subjects own strengths and weaknesses as a teacher; useful in reinforcing or clarifying ideas about teaching; and helpful in providing an opportunity to share thoughts about teaching.

The favourable response to the interview on the part of nursing faculty suggests that they welcomed an opportunity to discuss and analyze their specific teaching behaviours. As a result, the TPI may have potential as a tool that will assist nursing educators to develop their teaching strengths.

Limitations

The participants in the study are from hospital-based diploma programs in nursing. Generalizing the findings to other nursing programs must be done with caution. As well, student and director responses on the questionnaires only reflect their perceptions of the instructor at the time of completing the questionnaire.

With regard to the criterion measures used to validate the TPI, they have been limited to student and director ratings. Student-teacher relationships represent the process dimension of teaching. No attention has been given in this study to the content dimension which includes teacher mastery of subject matter.

Conclusion

On the basis of school of nursing director and student ratings, it is concluded that the Teacher Perceiver Interview was a valid instrument to identify nursing teachers who establish rapport with students and activate student involvement in the learning process. Further research that relates teacher behaviour and student clinical behaviour to the TPI scores would be useful. As well, studies investigating the use of the TPI process as a means for increasing the teaching excellence of nursing faculty could yield fruitful results.

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RÉSUMÉ

Comment reconnaître les professeurs qui favorisent des rapports étudiants/enseignants

L'importance du rapport étudiants/enseignants comme paradigme du rapport infirmier/malade a amené des chercheurs à se pencher sur la validité et l'utilité de l'entrevue de perception de l'enseignant (Teacher Perceiver Interview ou TPI) pour identifier les professeurs qui favorisent les rapports étudiants/enseignants. Des critères externes ont été retenus pour la validation de l'outil: il s'agit des évaluations des étudiants et du directeur de l'école des sciences infirmières. La corrélation entre les évaluations et les résultats que les professeurs ont obtenus lors de l'entrevue ont révélé des résultats positifs et significatifs. Par ailleurs, les professeurs dont les résultats au TPI se situaient dans la catégorie d'efficacité, faisaient l'objet d'évaluations nettement plus favorables aussi bien de la part des étudiants que des directeurs. Les résultats obtenus par les professeurs ont été examinés par rapport à la spécialité clinique, au niveau d'enseignement, à l'âge et à l'expérience. La compilation des réponses des professeurs a fait apparaître une réaction très positive aux questions et à la démarche d'entrevue. La validité et l'utilité démontrée du TPI a des implications pratiques sur le plan du perfectionnement des professeurs, particulièrement en ce qui a trait aux rapports étudiants/enseignants.