

# DIFFERENCES IN COMMUNICATION BEHAVIOURS OF SHY AND NON-SHY STUDENT NURSES IN SITUATIONS WITH EVALUATIVE POTENTIAL

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Communication experts have been aware for some time that shy persons have varying degrees of difficulty interacting with others in social situations (Buss, 1980; Friedman, 1980; McCroskey, 1981; Pilkonis, 1977(a), 1977(b)). In nursing, effective communication is essential because the execution of all phases of the nursing process depends on the data obtained and transmitted in client-nurse interactions. The quality of nursing care can be diminished if a nurse's ability to use communication skills is inhibited or deficient. Thus, the demonstration of skill in communication is a high-priority objective of most nursing programs. The implication, for nursing educators, is that early diagnosis of problems through careful evaluation in the clinical area is necessary, so that remedial action may be instituted.

The objective evaluation of nursing skills in the clinical area is a common concern of nursing teachers. It is particularly difficult to assess the skills of shy, retiring students. Their tendency to avoid the teacher's scrutiny makes determining the extent to which their shyness may decrease effective communication with their patients more difficult. Although communication experts have studied the relationships between shyness and inappropriate communication behaviours in various student groups, it has not been a topic for consideration in nursing research (Amatu, 1981; McCroskey, 1977; Pilkonis, 1977(a); Zimbardo, 1977).

The purpose of this study was to investigate the relationship between shyness and the ability of student nurses to demonstrate communication skills in the practice area. Since shyness behaviour increases when the individual perceives that evaluation is taking place (Buss, 1980; Pilkonis, 1977(a)), and because teachers frequently use direct observation as a data source for evaluating skills, the scope of the study was limited to the effects of the teacher's evaluative role on the student nurse's ability to demonstrate communication skills when interacting with assigned patients in the clinical area. The questions that were identified for study were:

- (1) Is there a correlation between degrees of shyness among student nurses and differences in their ability to demonstrate communication skills in the clinical area?
- (2) Is there a difference in their communication ability when the situation varies in evaluative potential?

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## **Review of the Literature**

The behaviours used by shy individuals to avoid the subjective discomforts experienced when situations increase their feelings of shyness have been widely documented in the literature (Amatu, 1981; Friedman, 1980; McCroskey, 1980; Pilkonis, 1977(a), 1977(b); Zimbardo, 1977). One of the outstanding characteristics of shyness is communication apprehension (CA); a fear or anxiety associated with real or anticipated communication with other persons (Harris & Brown, 1982; McCroskey, 1970; McCroskey, Simpson, & Richmond, 1982). This fear results in a tendency to avoid other people, to respond inappropriately, and to feel nervous and anxious when interactions cannot be avoided (Pilkonis, 1977(b)). In addition, when interactions involve an authority figure, shy persons tend to become more distressed and less able to communicate (Buss, 1980; Zimbardo, 1977).

Buss (1980) describes three categories of social situations that contribute to feelings of shyness and increased shyness behaviours. These three categories: novelty in social situations, the presence of others (especially of higher status or authority), and the actions of others, can readily be identified in the clinical area where the nursing student practices newly acquired skills.

In addition to inhibition of communication ability, there is concern that shyness may interfere with the learning process, thereby decreasing the amount of knowledge that can be applied in practice. Zimbardo (1977) claims that classroom learning largely results from verbal interaction and that shy students learn less because they avoid interactions with the teacher that facilitate individualized teaching. McCroskey and Anderson (1976) found that high CA students had lower grade point averages and scored lower on the American College test, especially on the sub-tests requiring high interaction. If the acquisition of communication theory is thus inhibited by shyness, nursing students affected may have less theoretical background than their non-shy peers, and may, therefore, be less able to demonstrate the level of communication skill required by the program.

## **Method**

### **Subjects**

Fifty-three Diploma nursing students were selected from a community college nursing program in a major city of Ontario, Canada (N246). Both classes of the program were equally represented in the sample. Subjects were chosen on the basis of their clinical assignment to two medium sized community hospitals and one nursing home, which were more readily accessible for research purposes. Data were collected to ascertain that the sample was representative of the population of nursing students from which they were selected. Comparisons of mean age,

Otis-Lennon (Form J) pre-admission scores, proportion of male and female students, the nature of the clinical areas, and years of teacher experience for the sample and residual groups suggested that the probability of real differences between the groups was very small.

## **Instrumentation**

Two instruments were used to measure levels of student shyness and communication apprehension. The Shyness Scale (SHY) is a 14 item, five choice Likert-type rating scale with reported high reliability (McCroskey, Anderson, Richmond & Wheelless, 1981). A fifteenth, free response item was added which asked students to identify any specific situations in the clinical area that increased their shyness.

The Personal Report of Communication Apprehension-24 (PRCA-24) was also designed by McCroskey (1981). It is a 24 item, five choice Likert-type measure which has consistently produced reliability estimates of .90 and above (McCroskey, 1978). McCroskey (1978) reports a number of studies that support his claim for predictive and construct validity of this instrument.

Two rating scales of 10 five-choice items were developed to obtain patient and teacher perceptions of the students' communication behaviours. The items for the Patient Feedback Scale (Table 1) and Teacher Feedback Scale (Table 2) were constructed using accepted criteria for effective communication skills. A panel of judges were asked to inspect the items for face validity. The inability to demonstrate these criterion behaviours has been attributed to shyness (Buss, 1980; Friedman, 1980; MacKay, 1973).

## **Procedures**

Permission to enter the clinical area was obtained from directors of nursing in the clinical agencies, the chairman of the Diploma Nursing Program and the clinical teachers. Students and patients were interviewed to request their co-operation, to explain the purpose of the project, and to emphasize the confidential nature of responses and study results.

Patient feedback scales were completed for each subject, on two occasions, by two patients. The first observation (PF1) sampled behaviours which occurred when the students communicated privately with the patient. The second observation (PF2), made about a week later, sampled behaviours when the situation was potentially evaluative in nature; that is, in the presence of the teacher and/or investigator. Following the second observation the students completed the PRCA-24 and SHY and their teachers completed the Teacher Feedback Scale.

In addition, the PRCA-24 and SHY were administered to the

remaining students in the nursing program, so that a comparison could be made of the incidence of shyness and communication apprehension in the study group and the residual group.

### Statistical Procedures

The data were analysed using descriptive statistics and correlational procedures.

**SHY and PRCA-24 scores.** Means and standard deviations were computed to provide information about the distribution of shyness and communication apprehension in the study and residual groups. Means were subjected to Chi-square testing to determine if differences between them were real, or could be accounted for by sampling variability.

Pearson Product Moment Correlation coefficients were calculated to assess the correlation of CA and shyness, and the similarity of the relationships in the study and residual groups.

**PF1, PF2 and TF scales scores.** Between item correlations were calculated for each of the two samples of PF scores and for the TF scores. The Spearman-Brown formula was applied to determine Coefficient Alpha (2) of the instruments.

Pearson Product Moment Correlation Coefficients were computed for PRCA-24, SHY, PF1, PF2 and TF scores to obtain information about possible relationships among the tests.

**Free response item 15 (SHY).** Situations that students identified as shyness-provoking were tabulated and classified according to the categories identified by Buss (1980, p.189). The distribution of situations was examined, and the frequency of occurrence was calculated for the total group. The extremely shy and communication apprehensive (defined as scores of 1SD above PRCA-24 mean and 1SD below SHY mean) were identified and the distribution compared to the total group.

### Results

#### **Descriptive statistics.** (PRCA-24, SHY, PF1, PF2, TF)

The PRCA-24 raw scores ranged from 33 to 118 in the study group with a mean of 62.8 and S.D. of 16.92 (Table 1). The scores of the residual group ranged from 27 to 98, mean 60.52 and S.D. 16.53.

The greatest range possible on the PRCA-24 is 24 to 120, high scores reflecting high communication apprehension. The scores obtained in both groups demonstrate a distribution of students with varying degrees of CA and, using McCroskey's criteria for extreme



communication apprehension (ISD above the mean), a proportion of each group with extreme CA could be identified.

Shy scores ranged from 15 to 70 in the study group and from 17 to 70 in the residual group. The sample mean was 42.46 with a SD of 13.03. The residual group mean was 42.2 with a SD of 11.51 (Table 1). Low scores indicate high levels of shyness. As with the CA scores, there were similar distributions of shy scores in both the sample and residual groups, with a proportion of scores one standard deviation below the mean, indicating some extremely shy individuals.

The descriptive data for the Feedback Scales are reported in Table 2. There was no appreciable variance between the means and standard deviations which ranged from PF2:  $\bar{X}$ 16.84, SD5.49; PF1:  $\bar{X}$ 18.41, SD5.34; and TF:  $\bar{X}$ 21.57, SD5.09.

**Chi-square.** Values for scores on the PRCA-24 and SHY for the study and residual groups are presented in Table 3. The small differences indicate that both samples came from similar populations, and that the differences can be accounted for by sampling variability.

High scores on the PRCA-24 were associated with low scores on SHY resulting in a correlation coefficient for the study group of  $-.62$  ( $p < .005$ ,  $n=50$ ), and  $-.58$  ( $P < .005$ ,  $n=141$ ) for the residual group. These results indicate that the shier the individual, the more apprehension is experienced when communicating with others.

Among measure Pearson Product Moment Correlations were not significant. The high correlations anticipated between PF2 and TF did not occur, nor did the lower correlations of PF1 to PF2 and TF (Table 4).

A high correlation between TF and PF2 scores might have suggested that since the teacher was present in both instances, the student demonstrated communication behaviours that could be observed by both patient and teacher. A lower PF1 correlation might have suggested that behaviours observed by the patient were different when the student communicated privately.

The Coefficient Alpha, as determined by the application of the Spearman-Brown formula to between item correlations, indicated that the items were sampling communication behaviours as intended (PF1, .77; PF2, .84; TF, .84).

#### **Free response item 15 (SHY)**

Thirty-seven subjects in the study group ( $N=52$ ) identified 56 situations that increased their shyness. Eighty-three students in the residual group ( $N=153$ ) identified 108 situations for a total of 164 (Table 5).

Table 1

Study and Residual Group Minimum and Maximum Scores, Means, Standard Deviations, and Standard Error on the Personal Report of Communication Apprehension (PRCA-24) and the Shyness Scale (SHY)

	Minimum Score	Maximum Score	Mean	SD	SE	n
Study Group						
PRCA-24	33a	118	62.58	16.92	2.35	52
SHY	15b	70	42.46	13.03	1.84	50
Residual Group						
PRCA-24	27	98	60.52	16.53	1.35	151
SHY	17	70	42.20	11.50	.96	143

a High score indicates high communication apprehension.

b Low score indicates high shyness levels.

Table 2

Minimum and Maximum Scores, Means, Standard Deviations, and Standard Error Values for Patient Feedback (PF1, PF2) and Teacher Feedback (TF1) Scores

	Minimum Score	Maximum Score	Mean	SD	SE	n
PF1	10a	31	18.41	5.34	.75	51
PF2	10	33	16.34	5.49	.86	41b
TF	10	36	21.57	5.09	.70	53

a Most effective communication = 10  
Least effective communication = 50

b A change in patient population and absences from the clinical area account for variation in sample size.

Table 3

Chi-square Values for PRCA-24 and SHY, for the Study and residual groups.\*

PRCA-24

Group	High CA	Low CA	Totals	X (1df, P. < .5)
Group	20 22.05	32 29.95	52	.4874
Residual	66 63.95	85 87.05	151	
	86	117	203	

SHY

Group	SHY	Non-Shy	Totals	X (1df, p. < .5)
Study	30 27.45	20 22.55	50	.7491
Residual	76 78.55	67 64.45	143	
	106	87	193	

\*Yates correction for continuity employed.

Table 4

Pearson Product Moment Correlations between Variables PRCA-24, SHY, Patient Feedback Scales, First and Second Observation (PF1, PF2), and the Teacher Feedback Scale (TF).

	PRCA-24	SHY	PF1	PF2	TF
PRCA-24		-.62	-.01	.22	.03
SHY			.09	.10	-.16
PF1				.07	.20
PF2					-.06
TF					

When classified according to Buss's (1980) categories, most of the situations related to the "Presence of Others" category (75), especially situations involving persons of higher status. In the "Novelty" category, 65 situations were identified. Again, social events, such as meeting new patients and dealing with patients of the opposite sex, were identified more frequently (39) than adapting to the physical environment (13) or performing role-related activities (13).

The "Actions of Others" category contained the fewest comments (21). Excessive attention by others was cited most frequently (16), while too little attention and intrusive behaviour by others were identified as increasing shyness in five comments.

There were 10 students in the study group (N-52), and 34 students in the residual group (N-153) whose scores indicated extreme communication apprehension and shyness (ISD above or below the mean). These students identified similar types of situations in the various categories as the total group.

### Discussion

An intriguing question arising from the results of this study concerns the lack of variability in the scores of the instruments measuring observable communication behaviours. A



Table 5

Classification and Frequency of Student Responses to Item 15 (SHY) According to Categories Identified by Buss.

	All Students		High SHY + CA	
	Study N=37/52	Residual N=83/153	Study N=5/10	Residual N=20/34
I. Novelty				
a. Physical (New Ward)	6	7	0	1
b. Social				
-New Patients	6	20	2	3
-Opposite Sex	8	5	1	2
c. Role				
-New Procedure	5	7	1	0
-Embarrassment	1	0	0	0
II. Presence of Others				
a. Formal Situations	2	10	1	2
-e.g. Public Speaking				
b. Status				
-Doctor	3	10	0	4
-Head Nurse	1	1	0	0
-Teacher	6	14	3	4
-Other Staff	7	10	1	6
III. Actions of Others				
a. Excessive Attention	7	9	1	5
b. Too Little Attention	1	2	0	0
c. Intrusiveness	0	2	0	0
TOTALS	56	108	11	27

number of students reported varying degrees of shyness and communication apprehension. These students said that they were shy; they admitted that they were apprehensive when communicating; they identified specific instances that increased

their shyness and they particularly noted situations in which authority figures were involved. Yet, the observations made by patients and teachers in evaluative situations did not significantly differ from observations made by the patient when the student communicated with them privately.

Since the instruments used to assess levels of communication apprehension and shyness have consistently demonstrated reliability and validity, there is a good possibility that shyness, in fact, did have an influence on communication ability. Possibly this was not demonstrated in the study because of other influencing factors. Some of these influences could have included sampling limitations, reliability of reporting by patients and teachers, lack of overt behaviours reflecting CA by students, or deficiencies in measurement.

**Sampling limitations.** Non-randomization of selection was recognized, at the onset, as a source of potential problems. However, support for the probability that no real differences existed in the study and residual group was obtained from comparing demographic and pre-admission test data, descriptive data from the PRCA-24 and SHY scores, and Chi-squared values for the PRCA-24 and SHY. There was an adequate distribution of shy and non-shy students in both groups, in proportions similar to those estimated by McCroskey, Daly, and Sorenson (1976) as a result of previous research with groups of college students in the United States.

**Reliability of reporting.** The patient, as a data source, was of questionable reliability. The problem was manifested by the lack of variability in PF1 and PF2 scores. Several explanations are plausible. First, there is a natural reluctance to "report" on others. Secondly, the research process may not have been well understood, so that participants were not confident enough to be candid. Again, the patient role is a dependent one which patients may not be willing to jeopardize by talking about their care-givers. Finally, some patients may not have perceived a need to communicate on other than a superficial level, or they simply didn't recognize ineffective behaviour.

The lack of variability in TF scores is also interesting. Why was there so little difference between scores for different students? It may be that shy and non-shy students may be able to communicate equally well in private, or with the teacher present, because of teaching and practice they have experienced prior to clinical assignment. It may also be that teachers vary their expectations depending on the proximity of the student to graduation. The teacher may feel that shyness will decrease with further experience, and so makes allowances for the shy student. Finally, because of time or other constraints in the clinical area, the evaluation of communication skills may be based on inference rather than direct observation.

## **Student behaviours**

Although teachers and patients did not seem to notice a difference in behaviour, nursing students in this study reported that social or interpersonal situations in the clinical area increased their shyness more than being exposed to a new environment. The student role permits unfamiliarity with new clinical areas, but does not allow differences in the quality of care provided for the patient. Thus, interacting with patients and staff is more stressful for the student. Also, the structural sameness of nursing units facilitates orientation, and, in addition, students may develop strategies to assist this process. Students identified authority figures more frequently than any other factor as a source of increased shyness: a result not manifested in observable behaviours, or, if it was, not recognized by either patients or teachers. It may be that students make an extra effort to exhibit appropriate behaviour in order to make a good impression in evaluative situations.

## **Deficiencies in measurement**

The PF and TF scales were developed for this study and had not been previously tested. Although the Spearman-Brown test suggested that the instruments were measuring the intended behaviours, further testing is necessary to determine reliability and validity. Since students were in the clinical area only two days a week, a time lapse occurred between the two samplings that may have had an effect on results. In addition, it was necessary to use different patients for the two samplings of behaviour. This may also have influenced the efficiency of the instruments.

## **Conclusion**

The literature related to shyness provides evidence that communication apprehension can result in poor communication skills in the shy person. This is particularly true when shyness and communication apprehension are severe. Since communication plays an important role in providing quality nursing care, failure to succeed in nursing because of poor communication skills may be rooted in shyness.

Although the data obtained in this study did not support the hypothesis implied in the research questions, results indicated a distribution of students who rated themselves as extremely shy and communication apprehensive, and who identified situations in the practice area that increased their feelings of discomfort. The lack of correlation of data related to their communication behaviours suggests that there may be obstacles to collecting objective information about student behaviours in the clinical area. This is a matter of concern for both students and teachers.

Further study is needed in the practice area in order to develop

a variety of approaches and methods to gather evaluative data. Reliability of patient responses appeared to be a problem. Therefore, additional or alternate data sources should be investigated, such as self-reports, nursing care plans, problem oriented recording, and nursing personnel.

At the present time there is no formal mechanism in the nursing program to diagnose causes of poor communication skills. Until better methods are developed, teachers should continue their efforts to identify instances where shyness interferes with communication ability, and to assist these students by appropriate counselling and referral.

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## RÉSUMÉ

### **Aptitudes a la communication: Différences de comportement chez les étudiants infirmiers timides et non timides dans des situations présentant un potentiel d'évaluation**

Cinquante-trois étudiants d'un programme de diplôme en sciences infirmières d'un collège communautaire ont été étudiés dans le but de préciser l'étendue de la corrélation entre les niveaux de timidité et les différentes aptitudes à communiquer dans le domaine clinique et de déterminer les différences entre les étudiants timides et les étudiants non timides au niveau des aptitudes à la communication, quand ils se trouvent dans des situations présentant un potentiel d'évaluation. Le rapport personnel d'appréhension de la communication (Personal Report of Communication Apprehension-24 (1981) ou PRCA-24) et l'échelle de timidité (Shyness Scale, SHY) ont été administrés afin d'évaluer l'anxiété de communication et les niveaux de timidité. Les échelles de rétroaction du malade et du professeur ont été conçues pour évaluer les comportements liés à la communication. Les résultats confirment qu'une partie des étudiants étaient timides et (ou) qu'ils manifestaient une appréhension de communication; cependant, les corrélations entre l'échelle de rétroaction du malade et du professeur n'ont pas confirmé les hypothèses proposées dans les questions de recherche. On a conclu que les résultats avaient pu être influencés par les limites de l'étude de même que par la complexité des rapports dans le domaine clinique, mais que la nécessité d'une évaluation objective des aptitudes à la communication en sciences infirmières justifie la poursuite des travaux, en faisant toutefois appel à des démarches et à des méthodes différentes.