

## LETTERS TO NURSING PAPERS

### *Using Interviews for Student Selection*

To the Editor:

My congratulations to Mrs. V. Wood for pinpointing some of the problems associated with student selection, evaluation procedures and educational policies in her article "The Borderline Student Nurse." I disagree, however, that a multi-stage admission procedure should be adopted for those applicants whose previous academic record would indicate that we have a potential borderline student. This may or may not be a valid assumption. I am sure that many nurse educators have experienced the student who comes equipped with a brilliant academic record and, alas, is a disaster at the bedside — and that's where the action is! In my opinion the time-consuming and expensive task of interviewing all potential applicants is, in the long run, economical to the student, the nursing program, the taxpayer, and last but by no means least, the patient. At the British Columbia Institute of Technology, part of the selection process is a mandatory interview prior to acceptance, for all applicants who wish to enter the nursing program. The interviewer focuses on four areas of concern.

(1) *Grades.* There is no minimum grade requirement. Each applicant has an opportunity to defend, justify, rationalize, etc., a mediocre or poor academic record. Applicants are often given guidance or counselled into other career opportunities: for example, the applicant who has repeated high school graduation twice and been granted a 51% in biology or chemistry by some frustrated teacher! However, it is possible in our affluent society to find an applicant who works six days a week and obtains high school graduation by attending classes four nights a week — and produces a final transcript which, on first appraisal, might be judged "limited ability". You find out about things like this when you take the time to interview applicants.

(2) *Physical and mental health records* are completed prior to the interview and are available during the time of the interview. It is normal to be "abnormal" in this age of future shock. However, an interviewer skilled in observing and identifying manifestations of gross psychopathology has an obligation to help this applicant receive help. So often applicants have admitted that they have applied to other schools of nursing and can't understand why, with a B+ average, they were not accepted. (Why do we lack the courage to be honest with applicants — are we afraid of being sued for using our knowledge?)

(3) *Finances.* This is an important area of concern, especially when the student does not receive a stipend and free room and board.

Failure to assess and stress the individual financial cost to the student often results in crises for faculty and students (bursaries, scholarships, and government loans notwithstanding).

(4) *Motivation*. This, alas, is the most difficult variable to assess. We are gaining experience and learning from our mistakes. We do, as a matter of policy, accept a limited number of students who could be labelled a risk "A" for academic reasons, or "O", other reasons including attitude, mental health, or questionable motivation. However, the faculty does not know who these students are. Some students in both these categories have proven us right in our initial assessment; others have proven us wrong.

Our attrition rate since the program began in 1967 has averaged 6.2%. Our attrition rate for 1970 was 3.75%. A continuing follow-up study of the graduates appears to indicate that we are producing safe, competent beginning nurse practitioners.

Mary Sutherland  
Chief Instructor,  
Chairman of the Selections Committee  
Nursing Program  
British Columbia Institute of Technology  
Burnaby, B.C.,  
February, 1972.

*Une division de nos énergies?*

Madame la rédactrice,

Je vous félicite de votre publication.

Je me pose cependant quelques questions auxquelles je n'ai pas de réponse. Les éducatrices ne devraient-elles pas écrire pour *L'Infirmière Canadienne* et/ou *The Canadian Nurse*? Pouvons-nous vraiment nous permettre une telle division de nos énergies? La qualité des travaux écrits pour *Nursing Papers* n'ajoutera-t-elle pas à celle du journal national qui rejoint un plus grand nombre d'infirmières?

Je vous renouvelle mon appréciation de votre revue...

Evelyn T. Adam  
Professeur adjoint  
Faculté de Nursing  
Université de Montréal  
Mai 1972

*The Editor replies:*

In response to Evelyn Adam's letter questioning the reason for publishing a journal such as *Nursing Papers*, I refer to the initial editorial (April 1969).

Les participants aux assemblées du CCUSN ou autres réunions, ont souvent regretté l'absence de communications entre les écoles universitaires de sciences infirmières. A un moment ou l'autre, chacune de nous a exprimé le désir de discuter certains aspects des sciences infirmières avec des collègues des autres parties du pays, d'échanger et de développer certaines idées concernant l'étude et l'enseignement des sciences infirmières dans le cadre universitaire. Aujourd'hui, le besoin de dialogue devient plus urgent, vu la complexité de la recherche en sciences infirmières et les diverses recommandations en vue d'améliorer les services de santé.

A l'avenir, nous anticipons que le CCUSN parlera au nom des écoles universitaires de sciences infirmières. D'ici là, le personnel enseignant de SGN a pris l'initiative de présenter un modeste journal, assurant ainsi un médium pour analyser certaines idées, pour répondre aux questions et exposer certains projets et opinions préparés par des personnes intéressées à l'éducation universitaire et à la recherche en sciences infirmières.

As *Nursing Papers* has developed, initial position papers of CAUSN, both national and regional, have been published. Furthermore, the CAUSN is becoming more involved with *Nursing Papers* and now provides some financial support.

The rationale for publishing *Nursing Papers* is not to reach all nurses, but rather to provide a forum for communication among our colleagues, particularly faculty of university schools of nursing. For example, it is our hope that nurse researchers can describe their work and present problems and ideas to others, who then can respond by questioning approaches, suggesting alternative solutions, and so on.

Miss Adam has provided all of us with an opportunity to consider the purpose of *Nursing Papers* for ourselves as individuals and as faculty concerned with teaching and research in nursing.

What is your response to Miss Adam's questions? What do you see as the rationale or purpose of *Nursing Papers*?—M.A.

#### *Comparison of Blood Pressure Readings*

To the Editor:

In the article "A Comparison of Blood Pressure Readings Taken Simultaneously by Faculty and Students", *Nursing Papers*, Vol. 4, No. 1, July 1972, by Professor Sheila Creeggan, we have observed what we believe to be an important error in the findings.

One minor error is the inversion of the column totals in Table 1, page 39; the total for student diastolic blood pressure readings should be 1653 and the total for the deviations should be -119.

However, a much more significant error, we think, occurs in the computation of the t test for matched comparisons. We have followed the formula presented in Mueller, Schuessler and Costner (*Statistical Reasoning in Sociology*, second edition, New York: Houghton Mifflin Co., 1970: 416-419) which agrees with Blalock and Hayes. On the basis of this formula, the t for systolic readings should be 1.2566 with 19 df, ( $\bar{X}=2.6$ , S.D.=9.02) which is not significant at the .05 level or better. Similarly, the t for diastolic readings should be equal to -3.3832, which is also not significant. Our revised Table 3 follows:

REVISED TABLE 3  
COMPARISON OF SIMULTANEOUSLY OBTAINED  
BLOOD PRESSURE READINGS TAKEN BY  
AUSCULTATION OF THE BRACHIAL ARTERY

	Systolic	Diastolic
Simultaneous Auscultation N = 20		
Mean difference	2.6	-5.95
Standard deviation	9.02	7.666
t-test	1.2566	-3.3832
sign test	p > .05	p > .05

We realize that the error may be ours rather than Professor Creeggan's, but we have checked our computations and we would like to know how she arrives at her t scores. If our calculations are correct, then it greatly changes the findings in the article from a report of a significant difference between student and faculty blood pressure readings to absence of a relationship.

We have checked the sources cited by Professor Creeggan and they generally use the analysis of variance technique (F-test) for determining whether or not there are significant differences between several groups. This technique, we believe, is more valuable than simple paired t comparisons.

Gloria Kay,  
Hans Bakker,  
Toronto,  
August, 1972.

*The author replies:*

Mrs. Kay and Mr. Bakker have certainly done a detailed review of the method of analysis. Let us consider the questions raised.

1. *Table 1.* There is, as they noted, a printing error where the totals for columns 6 and 7 are reversed.

2. *Computation for the t test.* In part, the difficulty is the result of a problem in communication. The mean differences given in Table 3 are the means of the absolute differences rather than the means of the algebraic differences. This accounts for the disparity between mean differences and standard deviations reported in the article and figures calculated by the reviewers. This study attempted to look at differences between the blood pressure readings taken simultaneously by faculty and students. The decision was made to do the analysis on absolute values because a difference of +12 and one of -12 both indicate a variation of equal magnitude. This was the same procedure used to calculate mean differences in the study by Putt (1966) referred to in the article and to which findings were compared.

The questions raised by the reviewers resulted in the author's again checking with a number of texts and a consultant statistician in the mathematics department. This search pointed to the fact that after calculating means on absolute deviations one can no longer assume a *t* distribution. Therefore, results of the test and the level of significance of the difference between readings of faculty and students should be disregarded until a different method of analysis can be utilized. The statistical consultant and a graduate student in the mathematics department considered alternative methods of analysis, but were unable to suggest a satisfactory alternate construct.

The deviations presented in Table 2, the mean differences calculated on absolute differences, and the results of the sign test as presented in Table 3 continue to be supportive of the implications for nursing practice as stated in the article.

In relation to figures presented by the reviewers, a  $t = -3.38$  for diastolic readings would be significant beyond the .01 level for a two-tailed test with 19 degrees of freedom (1).

3. *Analysis of variance is more valuable than a simple paired t comparison.* Because the present study had only two groups, we cannot understand the suggestion for use of the analysis of variance. Analysis of variance is the first step in the analysis of more complex designs. A discussion of when to use the *F* test instead of the *z* or *t* which might be helpful to readers is given by Isaac and Michael (2).

The investigator wishes to thank the reviewers for their critique which resulted in an interesting learning experience.

— Sheila Creeggan

#### References:

1. George A. Ferguson, *Statistical Analysis in Psychology and Education*. (New York: McGraw-Hill Book Company, 1959), pp. 165-66.
2. Stephen Isaac and William B. Michael, *Handbook in Research and Evaluation*. (San Diego: Robert R. Knapp, 1971), pp. 140-41.