THE CANADIAN JOURNAL OF NURSING RESEARCH

Nursing Papers

Fall/Automne 1989 Vol. 21 No. 3

REVUE CANADIENNE DE RECHERCHE EN SCIENCES INFIRMIÈRES

The Canadian Journal of Nursing Research
Revue canadienne de recherche en sciences infirmières

Volume 21, No. 3 **Fall/Automne, 1989**

EDITOR/RÉDACTRICE EN CHEF

MARY ELLEN JEANS, Ph.D. (McGill), Director and Professor, School of Nursing, and Associate Dean (Nursing), Faculty of Medicine, McGill University.

ASSOCIATE EDITORS/RÉDACTRICES ADJOINTES

JOAN ANDERSON, Ph.D. (U.B.C.), Professor and National Health Scholar, Faculty of Nursing, University of British Columbia.

LESLIE F. DEGNER, Ph.D. (Michigan), Professor, School of Nursing, University of Manitoba.

MARIE-FABIENNE FORTIN, Ph.D. (McGill), Professeur titulaire et Adjointe au Doyenne pour la recherche, Faculté des sciences infirmères, Université de Montréal.

ANNETTE O'CONNOR, Ph.D. (Toronto), Associate Professor, School of Nursing, and Vice Dean - Research, Faculty of Health Sciences, University of Ottawa.

MANAGING EDITOR/ADJOINT ADMINISTRATIF

ANDREW FERGUSON

REVIEW BOARD/COMITÉ DE LECTURE

CHRISTOPHER A. ARMSTRONG-ESTHER, Ph.D.
University of Lethbridge

SUZAN BANOUB, D.N.Sc.
Memorial University of Newfoundland

SHARON OGDEN BURKE, Ph.D.
Queen's University

CYNTHIA CAMERON Ph.D.(Cand.)
University of Manitoba

MADELEINE CLÉMENT, M.N.
Université de Montréal

BEVERLEE-ANN COX, Ph.D.
University of Western Ontario

ELIZABETH DAVIES, Ph.D.
University of British Columbia

GEORGETTE DESJEAN, Ph.D.
Université de Montréal

SANDRA FAUX, Ph.D.
University of Western Ontario

MARGARET FITCH, Ph.D.
Toronto General Hospital and University of Toronto

LAURIE GOTTLIEB, Ph.D.
McGill University

LESLIE K. HARDY, Ph.D.
Memorial University of Newfoundland

JEAN JENNY, M.Ed., M.S.N.
University of Ottawa

JUNE F. KIKUCHI, Ph.D.
University of Alberta

JANETTA McPHAIL, Ph.D.
University of Alberta

PATRICIA McKEEVER, M.Sc.(A)
University of Toronto

ALBA MITCHELL, M.Sc.
McMaster University

JANICE M. MORSE, Ph.D., Ph.D.
University of Alberta

CAROLYN PEPLER, Ph.D.
Royal Victoria Hospital and McGill University

DOROTHY PRINGLE, Ph.D.
Victorian Order of Nurses for Canada

CAROLYN ROBERTS, Ph.D.
Arizona State University

NICOLE ROUSSEAU, Ph.D.
Université Laval

KATHLEEN ROWAT, Ph.D.
McGill University

COLLEEN STAINTON, D.N.Sc.
University of Calgary

JOAN G. STELLING, Ph.D.
Montreal Children's Hospital and McGill University

PHYLLIS NOERAGER STERN, D.N.S., F.A.A.N.
Dalhousie University

MARILYN D. WILLMAN, Ph.D.
University of British Columbia

EDITORIAL REPRESENTATIVES
REPRÉSENTANTS DE LA RÉDACTION

CYNTHIA LOOS, *Lakehead University*
COLETTE GENDRON, *Université Laval*
ROSE KINASH, *University of Saskatchewan*
ALBERTA CASEY, *University of Ottawa*
PEGI EARLE, *Memorial University of Newfoundland*
DONNA FOLEY, *University of Windsor*
JO-ANN FOX, *McMaster University*
DIANA GENDRON, *University of Toronto*
DONELDA ELLIS, *University of British Columbia*
ELLEN MacFARLANE, *St. Francis Xavier University*
JOYCE MacQUEEN, *Laurentian University*
CAROLYN B. ATTRIDGE, *University of Victoria*
IRENE NORDWICH, *University of Manitoba*
JULIENNE PROVOST, *Université de Montréal*
SUSAN LASCHINGER, *Queen's University*
MARGARET DOW, *University of Calgary*
DOROTHY WASSON, *University of New Brunswick*
JEANETTE DOUCET, *Université de Moncton*
SHARON RICHARDSON, *University of Alberta*
SANDRA KNOWLES, *McGill University*
JUDY PEARCE, *Ryerson Polytechnical Institute*
SANDRA FAUX, *University of Western Ontario*
LINDA BERRY, *Dalhousie University*

The Canadian Journal of Nursing Research/Revue canadienne de recherche en sciences infirmières is published quarterly by the School of Nursing, McGill University, 3506 University Street, Montreal, Quebec, H3A 2A7. Letters regarding subscriptions, changes of address and other business matters should be sent to the Managing Editor.

SUBSCRIPTION RATES: Institutions (including hospitals, schools, libraries and agencies): $36/one year; $68/two years. Individual subscriptions: $30/one year; $56/two years. Students $16/one year. Subscriptions through CAUSN $26/one year; $50/two years. Please add $5/year for overseas airmail service.

ADVERTISEMENTS: Full-page display $350; half-page display $225.

BACK ISSUES: are available at $8/copy or $30/year. Xerox copies of articles are available at 25 ¢/page, or a minimum of $3/article.

To ensure prompt service when you write us about your subscription, please include the address label from your *The Canadian Journal of Nursing Research* mailing envelope.

ABONNEMENTS: Institutions (ce qui comprend les hôpitaux, les écoles, les bibliothèques et les agences): 36$ pour une année; 68$ pour deux ans. Abonnements individuels: 30$ pour une année; 56$ pour deux ans. Étudiants: 16$ pour une année. Veuillez adjouter 5$ de plus pour les envois par avion outremer.

ANNONCES: 350$ la page; 225$ la demi-page

ANCIENS NUMÉROS: 8$ le numéro ou 30$ par année. On peut se procurer les photocopies d'articles pour 25¢ la page ou 3.00$ minimum par article.

Pour accélérer le service dans toute correspondance relative à votre abonnement, veuillez inclure l'étiquette de l'enveloppe dans laquelle vous sont envoyées les *Revue canadienne de recherche en sciences infirmières.*

This issue has been supported by MRC (SR-1) and SSHRC (441-88-0104) grants.
Nous avons recu les subventions du CRM (SR-1) et du CRSHC (441-88-0104) pour cet numéro.

ISSN 0844-5621
Dépot légal - 1er trimestre 1974; Bibliothèque Nationale du Québec
Copyright: McGill University, School of Nursing, 1989.

The Canadian Journal of Nursing Research
Revue canadienne de recherche en sciences infirmières

Volume 21, No. 3 **Fall/Automne 1989**

CONTENTS - TABLE DES MATIÈRES

MAKING WISE PUBLICATION DECISIONS

"If I publish my paper in the proceedings of a meeting may I also publish it in a peer-reviewed journal?" This is a question frequently posed by junior scholars in nursing to myself and the Associate Editors of this publication. The answer is usually, "No". Most journals have a policy that requires the author(s) to assign the manuscript copyright to the journal publishing it. This means that, except for an abstract, the manuscript cannot be published in any other form. An abstract is a summary of a study that is usually presented at a national or international meeting.

Given this situation, how do authors decide where to publish their manuscripts? If the author happens to be a faculty member in one of the Canadian university schools of nursing, the decision will be made with the requirements for promotion and tenure in mind. Academic promotion is heavily based on research and scholarly productivity. One criterion of measurement, therefore, is quality and number of publications; these are judged in a priority fashion. In health sciences, tenure committees give greatest weight to publications in peer-reviewed journals. Books, and chapters published in books, are ranked next, followed by publications in non-peer-reviewed journals. Last come publications included in proceedings. In a slightly different category, abstracts of papers presented at peer-reviewed conferences are also given reasonable weight in tenure and promotions decisions.

As these guidelines become more clearly understood and generally acknowledged by academic nurses and, indeed, colleagues occupying positions in the health care facilities, the decision about where to submit a manuscript becomes easier. More and more faculty members are choosing not to publish papers in the proceedings of a conference but to present only an abstract, and to submit their final paper for publication in a peer-reviewed journal.

As a result of this trend, many conference organizers are taking a decision not to publish proceedings of their conferences; rather, they will publish books of abstracts of the papers presented in the conference. I think this is a wise decision but we also must put in place a procedure whereby conference presenters are encouraged to submit their manuscripts for publication in peer-reviewed journals. This is beginning to happen in Canada: the organizers of the National Nursing Research Conference, to be held at the University of Victoria, June 1, 2 and 3, 1990, have made the decision not to publish the proceedings of the Conference. They have, however, agreed to encourage presenters to submit manuscripts, particularly reports of research,

for publication; as well, they have encouraged *The Canadian Journal of Nursing Research* to reinforce an invitation to presenters to submit manuscripts to the Journal. The Associate Editors and I agree that it would be appropriate to consider these manuscripts from a Canadian research conference for potential publication. As usual, the manuscripts would undergo blind peer review before a publication decision was made.

There are other advantages to publishing in a journal rather than in proceedings. One of these is exposure to a wider readership. Normally proceedings are restricted to the people actually registered for a conference, while a journal, of course, is circulated to its subscribers: often a broad range of readers. In this way, an author's work becomes known to more people than would be the case in conference proceedings.

We anticipate that a number of excellent presentations will be made at the Annual Nursing Research Conference, in Victoria, and as such are pleased to encourage presenters to publish their work in the *Canadian Journal of Nursing Research*. Should you wish to submit a manuscript prior to the meeting, we can begin the review process that much more quickly. We welcome your submissions and look forward to meeting many colleagues at the Conference. We also encourage those of you who are not presenting papers to attend the meeting, in order to be involved, and to increase contact with colleagues in research from across Canada.

MARY ELLEN JEANS

UN CHOIX JUDICIEUX EN MATIÈRE DE PUBLICATION

"Si je publie un compte rendu dans les actes d'un congrès, puis-je également le faire paraître dans revue spécialisée oú il sera soumis à l'évaluation confraternelle du comité des lecteures?" C'est là une des questions que posent souvent les jeunes chercheurs en sciences infirmières, soit à moi-même soit aux rédacteurs adjoints de notre publication. La réponse est habituellement négative. La plupart des revues ont pour politique d'exiger que l'(les)auteur(s) cède(nt) son(leur) copyright à la revue dans laquelle l'article paraît. Il s'ensuit que, sauf dans le cas de résumés, le manuscrit ne peut être publié sous une autre forme. Un résumé est le rapport succinct d'une étude habituellement présenté lors d'un congrès national ou international.

Étant donné cette situation, comment les auteurs décident-ils où faire publier leurs manuscrits? Si l'auteur est professeur à l'école des sciences infirmières de l'une des universités canadiennes, sa décision l'amènera à tenir compte de facteurs susceptibles d'influencer une promotion éventuelle ou l'obtention de sa permanence. L'avancement en milieu universitaire est étroitement lié à la qualité de la recherche et aux publications qu'elle génère. La qualité et le nombre d'articles publiés constituent donc un critère d'évaluation qui reflète certaines priorités.

Dans les sciences de la santé, les comités chargés de conférer la permanence accordent le plus grand poids aux articles publiés dans des revues dotées d'un comité de lecture et d'évaluation confraternelle. Les livres et les chapitres de livres se classent au second rang, avant les articles qui sont publiés dans des revues spécialisées sans toutefois être soumis à l'évaluation confraternelle d'un comité de lecture. Enfin, les communications qui paraissent dans les actes des congrès se classent au dernier rang. Même s'ils se démarquent quelque peu par rapport aux autres types de publications, les résumés présentés lors de congrès où ils sont soumis à une évalutation confraternelle influencent eux aussi les décisions relatives à l'avancement et à la permanence.

Une plus grande diffusion et une meilleure compréhension de ces directives par les infirmières et infirmiers engagés dans la recherche et également par leurs collègues en poste dans des établissements de soins, ne pourra que faciliter la prise de décisions relatives à la publication d'un compte rendu. Un nombre croissant de professeurs de sciences infirmières préfèrent d'ores et déjà ne pas faire figurer leurs manuscrits dans les actes d'un congrès où ils

n'incluront qu'un résumé, se réservant la possibilité de faire paraître leur compte rendu final dans une revue dotée d'un comité de lecture.

Cette tendance a eu pour effet d'amener de nombreux organisateurs de colloques à ne pas faire paraître les actes de leur congrès, optant plutôt pour la publication d'un ouvrage réunissant les résumés des communications présentées. A mon avis, il s'agit d'une sage décision, mais nous devons en outre mettre en place une procédure pour encourager les chercheurs à soumettre également leurs manuscrits aux comités de lecture de revues spécialisées en vue de leur publication. Un mouvement en ce sens s'esquisse déjà au Canada: les organisateurs de la National Nursing Research Conference, qui aura lieu à l'université de Victoria les 1er, 2 et 3 juin 1990 ont décidé de ne pas publier les actes du congrès. Ils ont cependant convenu d'encourager les conférenciers à soumettre leurs manuscrits et notamment les comptes rendus de recherche, en vue de les faire publier; en outre, ils ont prié la *Revue canadienne de recherche en sciences infirmières* d'inviter les chercheurs à présenter leurs manuscrits à cette revue. Les rédacteurs adjoints et moi-même sommes convenus qu'il est indiqué d'examiner les manuscrits présentés lors d'un colloque canadien sur la recherche en vue, éventuellement, de les publier. Comme à l'accoutumée, ces manuscrits seront soumis à une évaluation confraternelle à l'insu avant qu'une décision ne soit prise.

La publication dans une revue spécialisée plutôt que dans les actes d'un colloque offre d'autres avantages. En premier lieu, le document touche un lectorat plus vaste. Les actes ne s'adressent habituellement qu'aux participants à un colloque, tandis que la revue spécialisée atteint tous ses abonnés qui oeuvrent souvent dans des domaines fort diversifiés. Un chercheur peut ainsi diffuser ses travaux auprès d'un plus vaste auditoire.

Nous croyons que l'Annual Nursing Research Conference à Victoria donnera lieu à un nombre intéressant d'excellentes présentations et c'est pourquoi nous nous félicitons d'encourager nos conférenciers à faire publier leurs comptes rendus dans la *Revue canadienne de recherche en sciences infirmières*. Si vous souhaitez présenter un article avant le congrès, nous entreprendrons la démarche d'évaluation d'autant plus tôt. Nous nous réjouissons de vos contributions et nous nous ferons un plaisir de vous rencontrer au congrès. Nous invitons également celles et ceux d'entre vous qui ne présentent pas de compte rendu à assister au congrès, à y participer activement et à multiplier leurs rapports avec leurs collègues canadiens engagés dans la recherche.

MARY ELLEN JEANS

LETTERS

Dear Editor:

I feel compelled to comment on Smith & Hedepohl's thought-provoking article, *Analysis and Evaluation of Parse's Theory of Man-Living-Health* in your Winter, 1988 [20(4)] issue.

Their clear articulation of Parse's Model sparked my thinking on two points which are rarely, if ever, discussed in evaluation of nursing models, and are missing from Smith and Hudepohl's discussion. They concern the language of a model and its cultural roots. Both these points could fit within the social utility section of Fawcett's framework for analysis.

On the first point, it would seem to me that the language of a model should be assessed on how well it expresses the concepts and relationships within a model, and also how clearly it allows these to be communicated to people using the model. Parse's creative use of language may well serve to express the concepts and relationships, but with her work, I often find that I have to translate her language into more understandable prose when I am discussing those concepts with others. Indeed her prose is frequently more convoluted than the original existentialist works from which she draws inspiration. As social utility concerns how useful a model is, how large a part does the language of a model play in its use.

Another aspect of a model's social utility could concern whether the concepts, goals and approaches of the model are consistent with the culture in which it is to be used. It is my experience that all too often in Canada (and now in the U.K.) we expect models created in the United States (and research conducted there) to be directly applicable, and requiring translation only for the differing health care system. We rarely look beneath the work for the cultural perspective it implies, and evaluate the work on that basis. The American culture of individual determination, individual responsibility and individual choice infuses Parse's model, and shows through in her emphasis on individual action. For instance, the assumptions underlying the model begin with, "Man-Living-Health is freely choosing personal meaning...." Is this emphasis congruent with the situation in which it is to be used? How important are the cultural perspectives expressed through the model in determining its applicability to particular social context?

Although nursing models are usually assessed and evaluated in the light of how comprehensive they are in themselves and how useful they would be in particular situations, the formative role of models is not always acknowl-

edged. As models come to be used in particular situations, the language (often written - sometimes verbal) of the work environment changes to accommodate the perspective of the model (Campbell, 1984). As nursing models become more influential in the directions taken by research, education and practice, what are the effects of this often unrecognised baggage (cultural, social and linguistic) that accompanies them?

Martha MacLeod, R.N., M.A.
Postgraduate Research Student
University of Edinburgh
(On leave from St. Boniface
General Hospital).

REFERENCES

Campbell, M.L. (1984). *Information systems and management in hospital nursing: A study in the social organization of knowledge.1 Unpublished Ph.D. thesis*. University of Toronto.

NEONATAL PAIN BEHAVIOUR AND PERINATAL EVENTS: IMPLICATIONS FOR RESEARCH OBSERVATIONS

Ruth V.E. Grunau, Kenneth D. Craig and Jane E. Drummond

Pain in early infancy has only recently been recognized as an area requiring systematic study in nursing (Owens, 1984; Roberts, 1988). This has emerged in part because of recognition of the need for an empirical base for pediatric pain management (Russo & Varni, 1982), but also reflects changes in views regarding neonatal functional capacity in other modalities (Emde & Robinson, 1979; Stratton, 1982). In the past, there have been widespread erroneous beliefs held that neonates were relatively insensitive to pain, perhaps as part of a system of protection during the birth process (Bondy, 1980). Studies of healthy neonates during circumcision (Dixon, Snyder, Holve & Bromberger, 1984; Gunnar & Malone, 1985; Marshall, Stratton, Moore & Boxerman, 1980) and heel lance for blood collection (Grunau & Craig, 1987; McKeel & Sanders, 1984; Owens & Todt, 1984) have now demonstrated vigorous and dramatic behavioral responses to noxious stimulation which adults would interpret as pain in response to tissue damage (Craig & Grunau, in press).

The possibility that variations in pain behavior in the first few days of life may reflect perinatal variables, such as mode of delivery and maternal obstetric medication, was raised 30 years ago by Lipsett and Levy (1959), and again by Fisichelli, Karelitz, Fisichelli and Cooper (1974). However, to our knowledge, this issue has never been addressed empirically. Other concomitant factors, such as time from last feeding prior to the invasive procedure, and type of feeding (breast vs. bottle) at a time when breast milk supply may not yet be well established, may also affect pain behavior. Difficulties inherent in attempting to determine causal relations between obstetric drugs or other perinatal variables and neonatal behavior, in the light of confounding of maternal and obstetric factors, have recently been described (Kraemer, Korner, Anders, Jacklin & Dimiceli, 1985).

Ruth V.E. Grunau Ph.D. is a Psychologist with British Columbia Children's Hospital in Vancouver. Kenneth D. Craig Ph.D. is a Professor of clinical psychology at the University of British Columbia in Vancouver. Jane E. Drummond R.N., M.Sc. is Assistant Professor of Nursing at the University of Alberta in Edmonton.

The Canadian Journal of Nursing Research *Fall 1989, 21(3), 7-17*

The aim of the present study was to identify factors that may contribute to variability in the behaviour of newborns and that have remained unexplained in neonatal pain studies. There was no intention to evaluate perinatal events as reflecting either potentially adverse or beneficial practices in relation to obstetric pain management. Rather, the aim was to examine associations between obstetric and other concurrent events, in relation to pain behavior. This was done using fine grained analysis of facial activity, which has been found to be a sensitive indicator of induced laboratory pain and clinical pain in adult chronic pain patients (Craig & Patrick, 1984; Craig & Prkachin, 1983; Grunau & Craig, 1990; Hyde, 1986), and significantly related to cry latency during blood collection in neonates (Grunau & Craig, 1987). Neonates were videotaped while hospital laboratory technicians performed heel lances for routine blood sampling purposes. A coding system for facial activity was developed, based on the Facial Action Coding System approach to coding discrete facial movements (Ekman & Friesen, 1978). The system incorporated Oster's proposals for coding babies' faces (Oster, 1978). Grunau and Craig (1987, 1990) describe the coding system (see Table l). For the purpose of exploring perinatal variables, only the overall amount of facial activity was examined.

Method

Subjects

A continuous sample of 77 boys and 63 girls from the well-baby unit of a major metropolitan university affiliated maternity teaching hospital participated in the study. The mean age of the infants was 43.05 hrs (SD = 7.06 hrs). Criteria for inclusion were: birthweight above 2500 gm; gestation of 38 to 42 weeks; Apgar rating at five minutes of 8 to 10; circumcision had not taken place. Mean birthweight was 3446.4 gm. Mean maternal age was 29.4 years (range 17 to 42 years); 89 (63%) of the mothers were white, 38 (27%) Oriental, 8 (6%) East Indian and the remaining 4% comprised 4 Filipino and 1 Native North American Indian. Mode of birth was 72 (52%) spontaneous vaginal, 34 (24%) vaginal forceps, 21 (15%) planned Caesarean section and 13 (9%) Caesarean section following labour.

Apparatus

A color camera was used for video recording with 3/4" video tape. An AKG D109 Lavalier microphone was suspended approximately 18 cm from the infant's mouth. To cue the heel-lance event, an inaudible tone of 1000 Hz was recorded on the audio portion of the video system. The original 3/4" videotapes were copied onto 1/2" VHS tapes with a digital time display superimposed for coding purposes. A video cassette recorder with remote control and a playback color monitor were used during video coding.

Measures

Facial activity and sleep/waking state were assessed using the videotaped recordings of the infant. These measures have been found to be related to facial activity following heel lance (Grunau & Craig, 1987, 1990). The remaining perinatal variables were compiled from the hospital chart.

Sleep/wake state. The following observational rating system was used for sleep/waking state: (l) eyes closed, no facial movement (quiet/sleep); (2) eyes closed, facial movement (active/sleep); (3) eyes open, no facial movement (quiet/awake); (4) eyes open, facial movement (active/awake). State was recorded by the first author in the nursery, over a 60-second period. Infants who were crying at the time sleep/waking state was recorded were excluded from the study, as they were judged to be already in a maximal state of arousal.

Facial Movement. The coding system for neonatal facial movement (see Table 1) (Grunau & Craig, 1987) was used by a coder who had been trained in the adult FACS system (Ekman & Friesen, 1978). The coder was "blind" to the purpose of the study and the perinatal data. Coding was carried out using a slow motion and stop-frame video feedback system. Occurrences of each of the seven facial actions were scored for each of five consecutive three-second time segments following heel lance, then summed, providing a measure of total facial activity.

Obstetric, perinatal and concurrent variables. The following information was taken from the hospital chart: type of birth (spontaneous vaginal, vaginal forceps, planned caesarean section, caesarean section following labour), type of obstetric maternal medication, duration of labour, gestational age in weeks, birthweight, head circumference, Apgar at one minute and five minutes, type of feeding (breast or bottle), maternal age and parity. Time from last feeding to heel-lance also was recorded.

Obstetric analgesia/anesthesia was ranked on an ordinal scale (Lester, Als & Brazelton, 1982), with modifications to reflect drug combinations used in Grace Maternity Hospital, Vancouver, B.C.. Type of obstetric medication was defined as follows: 1 = none; 2 = inhalation (50% N^2O in oxygen); 3 = perineal infiltration of local anesthetic; 4 = combination of two and three; 5 = epidural; 6 = combination of 2 and 5 or 3 and 5; 7 = combination of 2, 3 and 5; 8 = narcotics; 9 = combination of 2 and 8 or 3 and 8 or 2, 3 and 8; 10 = combination of 5 and 8 or 3, 5 and 8; 11= general anesthesia. None of these mothers were given sedatives or tranquilizers. Number of different drugs administered was recorded for the subset of infants born by spontaneous vaginal delivery. This was an observational study, with no control over frequency, dosage and total amount of medication.

Table 1

Neonatal Facial Coding System

Action	Description
Brow Bulge	Bulging, creasing and vertical furrows above and between brows occurring as a result of the lowering and drawing together of the eyebrows.
Eye Squeeze	Identified by the squeezing or bulging of the eyelids. Bulging of the fatty pads about the infant's eyes is pronounced.
Naso-labial Furrow	Primarily manifested by the pulling upwards and deepening of the naso-labial furrow (a line or wrinkle which begins adjacent to the nostril wings and runs down and outwards beyond the lip corners).
Open Lips	Any separation of the lips is scored as open lips.
Stretch Mouth	Characterized by a tautness at the lip corners coupled with a pronounced downward pull on the jaw. Often stretch mouth is seen when an already wide open mouth is opened a fraction further by an extra pull at the jaw.
Taut Tongue	Characterized by a raised, cupped tongue with sharp tensed edges. The first occurrence of taut tongue is usually easy to see, often occurring with a wide open mouth. After this first occurrence, the mouth may close slightly. Taut tongue is still scorable on the basis of the still visible tongue edges.
Chin Quiver	An obvious high frequency up-down motion of the lower jaw.

Procedure

Informed consent was obtained from a parent, usually the mother. PKU testing was conducted in a quiet room near the nursery, between 7 a.m. and 9 a.m., on the second day post delivery. Video and sound recording were carried out prior to and during this heel/lance procedure. The camera provided a close-up view of the infant's face at all times. The baby remained partially swaddled in the bassinet. The lab technicians' standard protocol involved: checking the infant's identification band on either the wrist or ankle; picking up the foot and rubbing it with disinfectant; the heel-lance procedure in which a small disposable metal scalpel (4.9 mm long point microlance) was used for incision. The heel then was squeezed and blood samples were collected on four circled areas on an absorbent card.

Data analysis

It has been found that parents differentially judge neonatal pain sensation using impressions of the amount of facial movement (Craig, Grunau & Aquan-Assee, 1988), and it is probable that nurse practitioners would do the same. Therefore, instead of using total facial activity as a continuous measure, scores below the median were categorized as low facial movement and those at or above the median were categorized as high facial movement.

Results

Stepwise discriminant analysis of the obstetric/perinatal/ concomitant variables to low and high facial movement showed statistically significant ($p < .01$) relationships for obstetric medication, $F(1, 130) = 14.62$, $p < .001$ and mode of delivery, $F(1, 130) = 11.60$, $p < .001$, independent of sleep/waking state. High facial movement was associated with greater obstetric medication ($M = 5.44$, $SD = 3.02$), as compared with the low facial movement group ($M = 4.52$, $SD = 2.95$). Classification results are shown in Table 2.

Table 2

Classification Results of Low and High Facial Movement to Heel Lance

Actual Group Membership	Predicted Group Membership	
	Low Face Action	High Face Action
Low n = 52	39 (75%)	13 (25%)
High n = 88	25 (28%)	63 (72%)
	Overall 73%	

Detailed exploration of the relationships of specific types of medication and modes of birth to facial action was beyond the scope of this study because of the small samples at this level of analysis and lack of systematic control over confounding variables. Therefore means are presented (Tables 3 and 4) for interest, for examination of possible trends; no statistical analyses were carried out on these means. No medication, or epidural alone, appeared to be related to less facial action than either combinations of epidural with other drugs or general anesthetic. Spontaneous vaginal birth and planned caesareans showed slightly less facial action than the possibly more "stressful" forceps or unplanned caesarean section. However, medication and delivery mode were confounded as the more difficult deliveries also received higher levels on the medication scale. Type of obstetric medication was highly related to mode of delivery, $X^2(36) = 154.07$, $p < .0001$. All women who received general anesthesia had a caesarean delivery. Of the 20 women who received epidurals only, 10 were planned caesareans, whereas half the mid or high forceps deliveries had received nitrous oxide in oxygen by mask or a local in addition to epidural medication.

Table 3

Mean Facial Movement to Heel-Lance by Type of Obstetric Medication

Obstetric Medication	n	M	SD
None	17	23.47	3.14
50% Nx/0 by mask	7	24.43	5.83
Local	17	25.34	4.62
50% N^20 + Local	27	25.85	4.52
Epidural	20	22.95	5.67
Epidural + 50 % N^20 or Local	23	25.22	2.95
Epidural + 50% N^20 + Local	8	26.87	2.75
Narcotic + 50% N^20 or Local or both	3	25.67	4.73
Epidural + Narcotic	6	26.67	1.86
General	12	26.17	3.13
Total	140		

Table 4

Mean Facial Movement to Heel Lance by Delivery Mode

	Spontaneous Vaginal	Forceps	Planned Section	Emergency Section
M	24.93	25.82	24.09	25.00
SD	4.22	3.63	5.58	2.97
n	72	34	21	13

A second discriminant analysis was carried out using data provided by the 72 infants of spontaneous vaginal deliveries only, none of whom had exposure to narcotics or general anesthesia. This was done to clarify whether the significant relationship between facial action and obstetric medication might have been related to a wider range or duration of drugs administered for forceps and emergency caesarean deliveries, or to unknown interactions with delivery mode. The number of different obstetric drugs administered was added to the set of predictor variables. This measure was considered inappropriate for the total sample because of the lack of comparability between number of drugs administered for planned cesarian versus other deliveries, and, for analgesia versus general anaesthesia. Analysis of each predictor variable showed statistically-significant differences in obstetric medication, $F(1, 70) = 9.75$, $p < .003$, and number of different drugs administered, $F(1, 70) = 10.35$, $p < .002$, between low and high facial activity groups. Following a stepwise discriminant analysis, because of multicollinearity, only the number of different drugs administered remained statistically significant in identifying level of facial activity, $F(1, 66) = 18.02$, $p < .001$), with an overall correct hit rate of 74%. The more drugs administered, the greater the subsequent facial activity in response to a pain inducing event.

The relationships reported between perinatal variables and pain expression were based on non-random assignment of subjects to groups; as such, it appeared very important to consider concomitant variables that may be related to delivery mode and obstetric medication. In the total group, mode of delivery was significantly related to parity, $X^2 (9) = 34.27$, $p < .0001$. There were significantly more forceps deliveries and emergency caesarean deliveries for first time mothers than for women who had undergone childbirth previously. Conversely, of the 24 women having their third or fourth baby, 71% had spontaneous vaginal deliveries and none were emergency

caesarean. Within the subsample of vaginal deliveries, correlations among several perinatal variables were calculated (see Table 5). Type, duration and number of drug administrations during labour and delivery were significantly related to duration of labour and parity. The infant's head circumference was significantly correlated with obstetric medication variables as well.

Table 5

Correlations Between Obstetric Medication and Perinatal/Infant Variables of Vaginal Deliveries

	Duration of Labour	Birth Weight	Head Circum.	Length	Parity
Type of Maternal Medication	.51**	.07	.36**	-.02	-.55**
Duration of Drug Administration	.59**	.03	.21	-.02	-.57**
Number of Drugs Administered	.55**	.07	.27*	.00	-.57**
Parity	-.53**	.06	-.06*	.05	
Maternal Age	-.01	.04	.01	.14	.26*

* $p < .01$
** $p > .001$

Discussion

Obstetric medication and delivery mode were examined in this study to determine whether they influence neonatal pain behaviour, thereby adding to uncontrolled error variance in research investigations. Pain research in this age group has treated healthy neonates as if they were an homogeneous group. A major review article in this area does not mention sample selection (Owens, 1984). The present findings suggest pain behavior in neonates reflects differences in obstetric procedures. Thus, in the study of pain reaction in this age group, specifying birth circumstances appears important. This study was not designed to evaluate behavioral variation in relation to specific maternal medications or modes of delivery. There was a wide variety of drugs, dosages and combinations. This is a highly complex topic and these findings only scratch the surface.

The depressant effect of narcotics and barbituates, which may persist for as long as two to four days after birth has been documented (Albright, Ferguson, Joyce & Stevenson, 1986; Bonica, 1980; Committee on Drugs, 1978). Thus, the possibility that the medication effect found on total facial movement after pain may have represented only those infants whose mothers had received general anesthetics or narcotics was explored. It was evident, however, that obstetric medication was highly related to total facial movement, even when only spontaneous vaginal deliveries with no narcotics administered were analyzed.

The finding of more facial movement to pain on the part of infants who had experienced more "stressful" deliveries, often involving higher levels of maternal medication, suggested they may have been more irritable and perhaps less able to modulate responses to nociceptive stimulation. However, another possibility is that a self-selection process may occur. Perhaps the less reactive mothers tend to receive less medication and their children are in some way expressively less reactive newborns. This may be mediated by constitutional, temperamental factors or by maternal physiologic factors during labour and delivery. Another possibility is that endogenous endorphins may be produced by nonmedicated mothers; in medicated mothers, as their pain is controlled externally, endorphins, or other endogenous pain modulation systems, may remain inactive (C. Bradley, personal communication, April, 1985). Endorphins may be passed on to the infant, thereby modulating pain reception and expression. It is not known at what point in pre- or postnatal development the capacity to produce endorphins becomes present. Causal analyses of behavioral reactions to specific obstetric events would require very carefully controlled studies, with separate analyses for different delivery modes. Apart from length of labour and parity in evaluating medication effects, a multiplicity of other interacting factors are potentially important: control of dosage, number of drug administrations and drug combinations, as well as levels of maternal endorphins and ongoing maternal and infant physiological events.

In conclusion, perinatal events did affect pain expression in newborns. It was beyond the bounds of this study to delineate specifically the critical factors. However, the findings indicated sample selection for neonatal pain study should include attention to birth events in addition to infant measures that define the neonate as "healthy".

REFERENCES

Albright, G.A., Ferguson, J.E., Joyce, T.E. & Stevenson, D.K. (1986). *Anesthesia in obstetrics: Maternal, fetal, and neonatal aspects*. Woburn, MA: Butterworth.

Bondy, A. S. (1980). Infancy. In S. Gabel & M. T. Erickson (Eds.), *Child development and developmental disabilities*. Boston: Little, Brown and Co.

Bonica, J. J. (1980). *Obstetric analgesia and anesthesia*. Amsterdam: World Federation of Societies of Anesthesiologists.

Committee on Drugs, American Academy of Pediatrics. (1978). Effects of medication during labor and delivery on infant outcome. *Pediatrics, 62*, 402.

Craig, K. D. & Grunau, R. V. E. (in press). Neonatal pain perception and behavioural measurement. In K. J. S. Anand & P. J. McGrath (Eds.), *Neonatal pain and distress*. Amsterdam: Elsevier Science.

Craig, K. D., Grunau, R. V. E. & Aquan-Assee, J. (1988). Adult judgements of pain in neonates. *Canadian Journal of Behavioral Science, 20*, 442-451.

Craig, K. D. & Patrick, C. J. (1984). Facial expression during induced pain. *Journal of Personality and Social Psychology, 48*, 1080-1091.

Craig, K. D. & Prkachin, K. M. (1983). Nonverbal measures of pain. In R. Melzack (Ed.), *Pain measurement and assessment* (pp. 173-179). New York: Raven Press.

Dixon, S., Snyder, J., Holve, R. & Bromberger, P. (1984). Behavioral effects of circumcision with and without anesthesia. *Developmental and Behavioral Pediatrics, 5*(5), 246-250.

Ekman, P. & Friesen, W. V. (1978). *The Facial Action Coding System (FACS)*. Palo Alto, CA: Consulting Psychologists Press.

Emde, R. N. & Robinson, J. (1979). The first two months: Recent research in developmental psychobiology and the changing view of the newborn. In J. D. Noshpitz (Ed.), *Basic handbook of child psychiatry*, Vol. 1. New York: Basic Books.

Fisichelli, V. R., Karelitz, S., Fisichelli, R. M. & Cooper, J. (1974). The course of induced crying activity in the first year of life. *Paediatric Research, 8*, 921-28.

Grunau, R. V. E. & Craig, K. D. (1990). Facial activity as a measure of neonatal pain perception. In C. D. Tyler & E. J. Krane (Eds.), *Advances in pain research and therapy. Proceedings of the First International Symposium on Pediatric Pain*. New York: Raven Press.

Grunau, R. V. E. & Craig, K. D. (1987). Pain expression in neonates: Facial action and cry. *Pain, 28*, 395-410.

Gunnar, M. R. & Malone, S. (1985). Coping with aversive stimulation in the neonatal period: Quiet sleep and plasma cortisol levels during recovery from circumcision. *Child Development, 56*, 824-834.

Hyde, S. (1986). *Facial expressive behavior associated with acute pain in a chronic low back pain population*. Unpublished doctoral dissertation, University of British Columbia, Vancouver, Canada.

Kraemer, H. C., Korner, A., Anders, T., Jacklin, C. N. & Dimiceli, S. (1985). Obstetric drugs and infant behavior: A reevaluation. *Journal of Pediatric Psychology, 10*, 345-353.

Lester, B. M., Als, H. & Brazelton, T. B. (1982). Regional obstetric anesthesia and newborn behavior: A reanalysis toward synergistic effects. *Child Development, 53*, 687-692.

Lipsitt, L. P. & Levy, N. (1959). Electrotactual threshold in the neonate. *Child Development, 37*, 1-16.

Marshall, R. E., Stratton, W. C., Moore, J. & Boxerman, S. B. (1980). Circumcision: Effects upon newborn behavior. *Infant Behavior and Development, 3*, 1-14.

McKeel, N. L. & Sanders, S. H. (1984, November). *An innovative measurement paradigm for new-born infant pain responses*. Paper presented at the Annual Meeting of the Association for Advancement of Behavior Therapy. Philadelphia.

Oster, H. (1978). Facial expression and affect development. In M. Lewis & L. A. Rosenblum (Eds.), *The development of affect*. New York: Plenum Press.

Owens, M. E. (1984). Pain in infancy: Conceptual and methodological issues. *Pain, 20*, 213-230.

Owens, M. E. & Todt, E. H. (1984). Pain in infancy: Neonatal reaction to a heel-lance. *Pain, 20,* 77-86.
Roberts, P. M. (1988, June). Pain in the neonate. *Canadian Nurse,* 17-19.
Russo, D. C. & Varni, J. W. (1982). *Behavioral Pediatrics*. New York: Plenum.
Stratton, P. (1982). *Psychobiology of the human newborn*. New York: Wiley & Sons.

This research was supported by research grants to the second author from the Social Sciences and Humanities Research Council and the Natural Sciences and Engineering Research Council of Canada.

We wish to thank Tom Armstrong and the staff of Grace Hospital, Vancouver, B.C. for their assistance. Our appreciation is expressed to Dr. G.H. McMorland, Head of Anesthesiology at Grace Hospital for adapting the obstetric medication scale, and to Dr. McMorland and Dr. Christine Bradley, Director of Research, Nursing Division, Vancouver General Hospital, for their helpful comments on an earlier draft of this paper.

RÉSUMÉ

Les circonstances périnatales et le comportement du nouveau-né face à la douleur: considérations pour la recherche

On a établi un lien significatif entre la médication obstétricale administrée à la mère et le comportement du nouveau-né face à la douleur le matin du deuxième jour suivant la naissance. On a examiné l'activité faciale après incision du talon à la lancette chez 140 nouveaux-nés par rapport aux circonstances de l'accouchement. On a établi une corrélation entre une activité faciale plus vigoureuse et une posologie plus élevée de médication obstétricale, même s'il s'agissait en général d'accouchements plus difficiles. Ces observations portent à croire qu'il faut faire preuve de plus de circonspection lors du choix des circonstances périnatales à retenir pour constituer les échantillons de nourrissons destinés aux études sur la douleur néonatale.

THE UNIVERSITY OF MANITOBA
Probationary/Tenure Track Faculty Positions

Applications are invited for three probationary (tenure track) appointments at the school of Nursing, University of Manitoba.

Activities: (1) teaching nursing courses in the Undergraduate programs in the areas of Long-term/Chronic Care; (2) and/or teaching courses in the Master of Nursing program in the areas of Curriculum Development and Design, Nursing Administration or Physiological Nursing; (3) participation in the thesis/practicum supervision of graduate students in the Master's of Nursing program in area of expertise; (4) maintaining an on-going program of research and scholarship; (5) participation in school, university and professional activities.

Qualifications: Preference will be given to candidates with: (1) an earned doctoral degree or substantive progress towards a doctoral degree in nursing or in a related discipline. Outstanding candidates with master's degree in nursing or closely related disciplines may be considered; (2) evidence of advanced research training and the development of an on-going research and publication program; (3) experience in teaching nursing at a university; (4) where relevant, clinical experience; (5) demonstrated ability in establishing collegial relationships.

Both men and women are encouraged to apply. In accordance with Canada Immigration requirements, priority will be given to Canadian citizens or permanent residents. Rank and salary will be commensurate with qualifications and experience. Registration with the Manitoba Association of Registered Nurses is required.

Applications should be directed to:

Dr. J. Larsen, Director

School of Nursing, University of Manitoba, Winnipeg, Manitoba, R3T 2N2.

Applications will be accepted until the position is filled.

BACCALAUREATE NURSES: TERRITORIALITY AND PROFESSIONALISM

Cynthia Loos and Karen Maddox

Changes in health status, health care delivery and the nature of nursing practice, have resulted in a process of change within the nursing profession. Implicit in this process is the official position of the Canadian Nurses Association (CNA) board of directors that, by the year 2000, the minimum educational requirement for entry into practice should be successful completion of a baccalaureate degree in nursing (CNA, 1982). One outcome for the profession has been the demand by registered nurses for access to post-basic baccalaureate education. To meet this, a subsequent increase in the available spaces in existing post-basic baccalaureate programs and in distance education programs being offered in certain geographical areas has resulted.

Baccalaureate-prepared nurses as a group have, prior to this point, enjoyed a prominence within nursing, partly through the educational status related to the attainment of a degree, and partly related to the limited size of the group. With the increasing numbers of baccalaureate-prepared nurses, there will be inevitable changes to the intra-professional status ascribed to those members presently holding a baccalaureate degree. How will the changes in intra-professional status influence attitudes toward the CNA educational goal for the nursing profession? Are the attitudes of baccalaureate nurses towards baccalaureate education congruent with the goals of their professional associations? Do professional norms and values internalized by this group through socialization to the profession transcend what Ardrey (1966) describes as territoriality?

The purpose of this study was to identify the dominant attitudes of generic and post-basic baccalaureate nurses that reflect territoriality or professionalism, in relation to the attainment of a degree in nursing.

The concept of professionalism and Ardrey's theory of territoriality (1966), which encompasses needs for identity, security and stimulation, were the basis of the study.

Cynthia Loos, R.N., M.Ed. is Associate Professor in the School of Nursing, Lakehead University, Thunder Bay, Ontario. Karen Maddox B.Sc.N. is Lecturer in the School of Nursing, Lakehead University, and a Master's candidate at the College of St. Scholastica, Minnesota.

The Canadian Journal of Nursing Research *Fall 1989, 21(3), 19-29*

Professionalism

Many factors involved in professionalism are as yet unresolved. Historically, there has been conflict between nursing education and practice that slowed the advent of a legitimate professional (Baer, 1985), and according to Aydelotte (1983) there has been difficulty in defining the word "profession". A review of other professions led her to the belief that professionalism involves motivation and a commitment to high quality service. The difficulty experienced by Aydelotte has been borne out by the many definitions of other noted authors. Professional nursing, according to Rovers and Bajnok (1988), "is based on the value system of the practitioner, on liberal and professional knowledge and on clinical and cognitive skills" (p.329). Donner and Hardy (1988) believe that rather than merely responding to the needs and demands of others, internalization of professional values, attitudes and skills allows the nurse to contribute to society and the profession and to learn the culture of the profession which is part of professional socialization. Dalme (1983), in her study of first and second year students in four baccalaureate nursing programs, found that increasing levels of professional socialization were experienced as students progressed from first to second year, with the internalization of the norms and values of faculty and staff nurses. Kozier, Erb and Bufalino (1989) inferred that professionalism denotes the qualities of knowledge, skills, decision making, leadership and critical thinking; it is the goal of nursing.

The literature supports a definition of professionalism as that which embraces the internalization of professional values, attitudes, skills and knowledge. It signifies an appreciation for the diversity of client needs, as well as a pride in one's professional role as a change agent in practice and in the profession.

Territoriality

According to Ardrey (1966), a territory is an area that is defended "as an exclusive reserve" (p. 1). Territoriality is demonstrated in humans by our protection of our personal self: "Territory is essentially defensive ... through the holding of a territory we defend what social status we have achieved" (p.64). Territorial behaviours and the "command to defend one's territory are innate," and humans have a need to "possess and defend" what is uniquely theirs (p.23).

The majority of studies on territoriality among nurses have been done from the perspective of power and conflict, within and between the professions. Although there exist common goals and values among nurses, different groups within nursing hold different values; these value differences are a source of conflict within the profession (Conway, 1983). This may, in part,

relate to Ardrey's belief that humans are driven through internal pressures "to achieve dominance over social partners" (p.64). Pinch (1981), in discussing the process of professional socialization, concluded that nurses face a conflict of power related to territoriality. To prevent a lack of cohesiveness, Noriega (1984) advised the avoidance of territoriality. Clearly marked boundaries, within which baccalaureate nurses may establish their territory, have been achieved, in part, by education (Monig, 1983). These boundaries will change as the degree becomes more attainable. As the defining characteristics of the territory change, so will the behaviour that occurs within it (Stea, 1969), and territorial conflicts within the profession will occur (Monig, 1983). According to Ardrey (1966), these behaviours are responses to a territorial compulsion that is central to man's existence.

Ardrey (1966) believed that man was "a territorial animal" (p.4), and suggested that there were three needs that psychologically prompted man's territorial behaviour; identity, security and stimulation. Territoriality is one of the "behavioural outlets which satisfies all three needs" (p.313). Ardrey determined that the extent of each would vary among individuals and groups and believed there was a "hierarchy of value among the three needs" (p.310).

Identity

Identity is a sense of unity and persistence of personality that determines "rank or status" within a group (Ardrey, 1966, p.158). "Rank satisfies identity" and constant persistence toward this goal defines one's position within the group for the individual and other group members (Ardrey, p.310). Man's struggle for identity to challenge anonymity is on-going.

Security

There is considerable energy spent in seeking and preserving security, for without a minimum of security there is dissatisfaction which progresses to anxiety. Security is "never absent, and never more than temporarily satisfied" (Ardrey, 1966, p.310). The need for security according to Ardrey, will be sacrificed for either the need for identity or the need for stimulation.

Stimulation

Ardrey (1966) depicts stimulation as "the ultimate release from boredom" (p.310), providing arousal or excitation that leads to activity or growth. Humans achieve a high degree of stimulation in association with peers through competitive as well as supportive interactions and as Ardrey states, "the demand for stimulation is the compulsion to compete" (p.313).

Relative then to Ardrey's discussion of these three needs, identity appears to pertain to baccalaureate-prepared nurses in terms of individual and group

status, rank within nursing, the sense of identity that the degree bestows and the striving for that identity. Similarly, in accordance with Ardrey's statements, a baccalaureate degree in nursing would seem to preserve security through employment potential and the enablement of advancement in the agency. Should relocation be necessary the degree would offer security. As well, in reviewing Ardrey's assertions, stimulation would relate to the baccalaureate-prepared nurse through the empowerment of the degree that stimulates activity and competitiveness. The enabling powers of the degree may be seen in terms of professional advancement and personal growth.

With the acceptance of Ardrey's belief that these needs are the basis of territoriality, and that territoriality allowed for a behaviour which, in turn, satisfied these same needs, territoriality would appear to be the aggregate of these needs.

In consideration of the purpose of this study our hypotheses are that:

1. There is no difference in how post-basic and generic baccalaureate nurses attribute the satisfaction of identity, security and stimulation to the attainment of a baccalaureate degree.
2. There is no difference in the rating of professionalism between the two groups.
3. There is no difference in rating of territoriality between the two groups.
4. There is no difference in how territoriality and professionalism are rated by both groups as a whole.

Method

An instrument composed of ten demographic items and 20 statements which addressed territoriality (identity, security and stimulation) and professionalism, was developed. A Likert-type scale allowed for the 20 items to be rated from 1 - strongly disagree to 5 - strongly agree.

Demographic variables such as age, marital status, employment status, position, primary employer, post-basic or generic degree, length of time employed in nursing and membership in the professional association were addressed.

Content validity for territoriality (identity, security and stimulation) was ensured by constructing items based on Ardrey's (1966) theory, as operationalized by the researchers for this study. Items were developed to characterize professionalism as described in the literature, and as further operationalized by the researchers to ensure content validity.

Table 1

Sample Items, Constructs and their Links

Constructs	Sample Questions	Link to Construct
Identity	* The sense of identity I have gained has been due to the fact that I have a degree in nursing.	rank/individual status
	* I do not hesitate to identify myself as a baccalaureate-prepared nurse.	group status
Security	* There is a greater chance of advancement in my place of primary employment because I hold a baccalaureate degree.	employment potential
	* The acquisition of a baccalaureate degree has added to, or given me a sense of security.	seeking/preserving security
Stimulation	* The acquisition of a degree has given me a sense of power in terms of my employment potential.	stimulation through empowerment
	* Having a baccalaureate degree in nursing stimulates me to advance professionally.	enabling professional advancement
Professionalism		
	* A baccalaureate-prepared nurse has a broad perspective concerning multifaceted patient problems.	diversity of client needs/change agent
	* There are insufficient nurses with baccalaureate degrees at present.	professional values

The representativeness of the two themes was assessed by post-basic and generic colleagues. Subsequent to this, one item was deleted. Internal consistency for territoriality (alpha=.91), identity (alpha=.76), security (alpha=.77), stimulation (alpha=.74) and professionalism (alpha=.73) was determined; as a result two further items were deleted.

A population sample of 171 post-basic and 269 generic baccalaureate nurses, registered with the College of Nurses of Ontario in 1988, who listed Northwestern Ontario as a place of residence were selected. This population was chosen because a post-basic nursing degree by distance education was scheduled to commence throughout Northwestern Ontario in 1988, thus potentially altering the numerical status of baccalaureate-prepared nurses within the region. Ethical concerns relating to confidentiality, anonymity and intent of the study were addressed. Response by pre-paid mail indicated consent to participate. The responses of 62 post-basic and 165 generic nurses were received within a six week period for each group (36.3% and 61.3% respectively).

Results

Descriptive statistics were employed to describe characteristics of the sample; chi-squared statistical analysis was used to determine if any significant demographic differences existed between the two groups. A t-test for independent means was used to determine significant differences between the ratings of the two groups.

Ninety-seven percent of both groups were females; the majority of both groups were married. The percentage distribution for other selected demographic variables is presented in Table 2.

The post-basic group differed significantly with regard to age from the generic group x^2 (6, N=227) =91.80, p<.001. Although in a "yes/no" response to the item "employed in nursing", there was a significant difference between the post-basic and generic groups, x^2 (1, N=227) =10.08, p<.01, on questions concerning employment status there were no significant differences between the two groups for those employed in nursing, x^2 (3, N=204) =3.76. Positions held by post-basic nurses differed significantly from those held by the generic group x^2(5, N=204) =37.01, p<.001. The primary employer for the two groups differed significantly, x^2 (8, N=204) =23.03, p<.01.

Fifty two post-basic nurses responded to the item "years of experience prior to degree and post degree". The mean number of years experience prior to the degree was 7.15, with a range from 0 to 22 years and a mode of less than one year. Post degree experience ranged from 0 to 20 years with a mean of 10.07 and a mode of 3 years. The generic nurses (n=118) had a mean of 8.27 years experience since attaining their degree, ranging from 1 to 35 years with a mode of 2.

For the individual items expressing identity, security and stimulation, three items revealed significance. With regard to identity, the generic group (M=2.88) differed significantly with the post-basic group (M=2.45), in the belief that the acquisition of a baccalaureate degree added to, or gave a sense of identity, t(225)=2.72, p<.01. There was a significant difference in the rating of the post-basic nurses (M=4.06) and the generic group (M=3.69), as to whether the baccalaureate degree had added to or given the group a sense of security t(225)=2.44, p<.05. A significant difference in the rating of whether the degree offered a sense of security, should relocation be necessary, was found between the generic (M=3.95) and post-basic group (M=3.50), t(224)=3.03, p<.005.

Only one individual item expressing professionalism showed significance. Post-basic nurses (M=2.88) and generic nurses (M=2.51) differed significantly in rating the baccalaureate degree as a necessary qualification for nurses t(223)=2.03, p<.05.

Table 2

Selected Demographic Variables

Variable	Generic %(n=165)	Post-Basic %(n=62)
Age by category		
Under 25	15.2	0.0
25 - 29	26.7	3.2
30 - 34	29.7	6.5
35 - 39	17.6	19.4
40 - 45	4.8	29.0
45 - 49	2.4	14.5
50+	3.6	27.4
Employed in Nursing		
Yes	93.3	77.4
No	6.5	22.6
Employment Status		
Full time	55.2	74.0
Part time-permanent	26.1	16.0
Part time-casual	9.7	8.0
Other	2.4	2.0
Position		
Staff nurse	67.3	28.0
Supervisor	7.3	34.0
Director	1.2	4.0
Instructor	7.9	18.0
Clinical specialist	3.0	2.0
Other	6.7	14.0
Primary Employer		
General hospital	51.5	34.0
Psychiatric hospital	4.2	10.0
Nursing home	2.4	8.0
Community health agency	21.2	20.0
Physician's office	1.8	0.0
University	5.5	2.0
College	1.8	12.0
Occupational health	1.8	6.0
Other	3.0	8.0

When items addressing identity, security or stimulation were clustered into these components, as predicted, neither identity nor stimulation were significant, although there was a significant trend in the reporting by generic (M=3.22) and post-basic nurses (M=2.97) for identity, $t(255)=1.97$, $p<.10$. Contrary to what was hypothesized, the generic nurses reported a significantly higher rating for security (M=3.67) than the post-basic group (M=3.41), $t(222)=2.18$, $p<.05$.

As hypothesized, no significant difference between the groups was found, when professionalism was considered as an aggregate.

As predicted there was no difference in the reporting of territoriality, based on the overall rating of identity, security and stimulation by the generic (M=3.41) or the post-basic nurses (M=3.24), $t(219)=1.50$

Contrary to hypothesis, when a paired t-test was performed on the two groups as a whole for professionalism and territoriality, a significant difference ($p<.001$) in the response to these two concepts was identified. Professionalism was rated significantly higher than territoriality.

Table 3

Professionalism vs Territoriality (N=220)

Professionalism		Territoriality		
M	SD	M	SD	t
3.45	.82	2.91	.64	13.56*

*p <.001

Discussion

The majority of the respondents from the post-basic group tended to be older than 35 years of age and employed in positions of leadership; the generic group were between 25 and 34 years of age and were mainly employed as staff nurses. Despite the differences related to assimilation into the profession or motivation toward advancement of position within the profession that one might expect, there were few real differences between the two groups. Neither group considers itself to be "special" within nursing, but both groups clearly identify the advantage of promotion, security and mobility available to them as baccalaureate nurses. This may be indicative of the assimilation of professional and territorial behaviours in the educational process.

The expectation that professional qualities would be highly rated by both groups was borne out, with the exception of two items. Only an average of

45% of both groups belong to their professional association. This appears to be significant in terms of professionalism, and should be of concern to the professional association. The second exception was the low support for baccalaureate education as a requirement for practice. Seemingly contrary to this was the high indication, by both groups, of the need for more baccalaureate-prepared nurses and the view that the degree was valuable in the holistic care of clients with complex problems. This may be indicative of the current struggle between professionalism and territoriality among baccalaureate practitioners. The results suggest that baccalaureate nurses are more territorial and less professional than they perceive themselves to be. That is, the advantages that baccalaureate nurses currently have, in terms of security and position within the nursing profession, would no longer exist if nurses were more homogeneous in terms of education; consequently internal competition for leadership positions would increase. It seems that, although these nurses hold professional values, more realistic, basic survival values may supersede these.

Ardrey (1966) states that "identity is the most pervasive" of the three needs, with very few exceptions (p.310), and the need for stimulation usually places second to identity within an individual or group. However, both groups of nurses rated security higher than identity and stimulation. The security attributed to a baccalaureate degree may result from the present limited size of the group in this region. This may give baccalaureate nurses an opportunity to find stimulation and identity within the profession. With the satisfaction that comes from identity and stimulation, more importance could be attributed to security. This outcome may also be related to the economic situation in this geographic area.

Conclusion

Despite demographic, educational and practice variations, both groups perceived themselves to have professional values, and rated these values higher than "territoriality". The limited support for baccalaureate education as a requirement for nursing and the limited involvement in the professional association seem in direct opposition to the self-reported professionalism within both groups. Why do baccalaureate nurses not support baccalaureate education for all nurses? Perhaps, as territorial beings, the instinctive needs of territoriality, as suggested by Ardrey (1966), prevail.

Further study is needed, to determine why these baccalaureate nurses place limits on their professional values and withhold support for the goals of their professional associations. The nursing profession is involved in a process of change: these baccalaureate nurses as a group appear to be resisting those aspects of the process that affect their territorial needs. Are these findings unique to this region, or are they indicative of the generalized attitude of baccalaureate-prepared nurses toward baccalaureate education in Canada?

REFERENCES

Ardrey, R. (1966). *The territorial imperative*. New York: Dell.

Aydelotte, M. K. (1983). Professional nursing: The drive for governance. In N. L. Chaska (Ed.), *The nursing profession: A time to speak* (pp. 830-843). New York: McGraw Hill.

Baer, E. D. (1985). Nursing's divided house - An historical view. *Nursing Research, 34*, 32-38.

Canadian Nurses Association. (1982). *Entry to the practice of nursing: A background paper*. Ottawa, ON: Author.

Conway, M. E. (1983). Prescription for professionalism. In N. L. Chaska (Ed.), *The nursing profession: A time to speak* (pp. 29-37). New York: McGraw Hill.

Dalme, F. C. (1983). Nursing students and the development of professional identity. In N. L. Chaska (Ed.), *The nursing profession: A time to speak* (pp. 134-145). New York: McGraw Hill.

Donner, G. J. & Hardy, L. K. (1988). Career development and mobility in nursing workplaces. In A. J. Baumgart & J. Larson (Eds.), *Canadian nursing faces the future* (pp. 297-312). St. Louis: Mosby.

Kozier, B., Erb, G. & Bufalino, P. (1989). *Introduction to nursing*. Mento Park: Addison-Wesley.

Monig, R. L. (1983). Professional territoriality in nursing. In N. L. Chaska (Ed.), *The nursing profession: A time to speak* (pp. 38-48). New York: McGraw Hill.

Noriega, L. (1984). Turf: New speculation on an old syndrome. *Association of Operating Room Nurses Journal, 29*(7), 1264,1266.

Pinch, W. J. (1981). Feminine attributes in a masculine world. *Nursing Outlook, 29*, 596-599.

Rovers, R. & Bajnok, I. (1988). Educational preparation for entry into the practice of nursing. In A. J. Baumgart & J. Larsen (Eds.), *Canadian nursing faces the future* (pp. 323-335). St. Louis: Mosby.

Stea, D. (1969). Space, territory & human movements. In H. Proshansky, W. Ittelsen & L. Rivlin (Eds.), *People and their physical settings* (pp. 37-42). New York: Holt, Rinehart and Winston.

Preparation of this article was supported by the Regional Research Fund, Lakehead University.

We gratefully acknowledge the statistical assistance of Dr. John Jamieson, Ph.D., Lakehead University, and the two anonymous reviewers for their comments.

RÉSUMÉ

Infirmières bachelières: territorialité et professionnalisme

Le leadership des bacheliers(ères) en nursing au sein de l'effectif infirmier tient à leur formation universitaire et à leur nombre restreint. Les attitudes qui prévalent à l'égard de la formation universitaire sont-elles conformes aux objectifs des associations professionnelles? Le professionnalisme transcende-t-il ce qu'Ardrey (1966) a appelé la "territorialité"? Trente-six pour cent des infirmiers(ères) qui ont suivi une formation post-diplôme (n=62) et soixante-et-un pour cent de ceux(celles) qui ont suivi un baccalauréat générique (n=165) parmi un échantillon démographique d'une région donnée ont répondu à un sondage sur le professionnalisme et la "territorialité". Même si l'on a noté des écarts démographiques au chapitre de l'âge, du type d'emploi et du poste, on n'a constaté aucune différence significative entre les deux groupes quant à l'évaluation de la "territorialité" et du professionnalisme. Le professionnalisme a obtenu une cote beaucoup plus élevée que la "territorialité". Contrairement au professionnalisme affiché par les deux groupes, la nécessité d'un baccalauréat n'a recueilli qu'un appui limité tout comme le niveau de participation des répondants aux activités de leurs associations professionnelles respectives. Les infirmiers(ères) bacheliers(ères) de cette région limitent volontairement leurs valeurs professionnelles et refusent d'appuyer les objectifs professionnels quand leurs besoins territoriaux sont remis en cause.

Call for Abstracts

The Third *Management of Nursing Practice Research Conference* sponsored by the Department of Nursing Practice Development, Nursing Division, Victoria General Hospital, Halifax, Nova Scotia, will be held January 24, & 25, 1991 at the Chateau Halifax.;
Deadline for submission of Abstracts is May 8, 1990.
For more specific information contact:

Dawn Miller, R.N., B.N.
Department of Nursing Practice Development
Victoria General Hospital
1278 Tower Road, Halifax, N.S., B3H 2Y9
Tel: (902) 428 4086

Call for Abstracts

American Association of Critical-Care Nurses
Fourth International Intensive Care Nursing Conference
Vienna, Austria, August 19-23, 1991

Abstracts that adhere to AACN guidelines must present content in one of the following categories: Research; Creative Solutions.
Submissions must be postmarked no later than August 1, 1990
Guidelines and forms can be obtained by contacting:
Jan Boller, Program Development Manager
One Civic Plaza, Newport Beach, California 92600.
Tel: (714) 644 9310; Fax: (704) 640 4903

THE EFFECT OF EDUCATION ON STUDENT NURSES' ATTITUDES TOWARD ALCOHOLICS

Deborah L. Tamlyn

Despite a basic aim in nursing education to promote attitudes of understanding toward others, negative attitudes toward various groups still persist. This fact is particularly evident when one considers attitudes toward alcoholics. The literature reveals that student nurses continue to reflect the negative and unaccepting attitudes of the general public and of health professionals toward alcoholics (Caetano, 1987; Edwards, 1987; Fisher, Fisher, & Mason, 1976; Schmid & Schmid, 1973). These negative attitudes have a detrimental effect on the nurse's ability to develop meaningful relationships with alcoholics (Davidhizar & Golightly, 1983; Edwards, 1987; Gurel, 1976; Rosenbaum, 1977).

Little is known about how to improve attitudes toward alcoholics. Generally, there has been inadequate attention given to alcohol education in most nursing, medical and social work programs (Johnson, 1983; Rosenbaum, 1977; Schlesinger, 1986). Programs that have attempted to promote improved attitudes toward alcoholics have varied greatly in their approach and many have not been based upon a theoretical framework.

Research on the success of various programs in modifying negative attitudes toward alcoholics have yielded mixed and sometimes conflicting results. There has been inadequate consideration of issues related to measurement tools, research design and data analysis (Sawyer, 1978).

There has also been a lack of study dealing with student-related factors that may impede or create resistance to attitude change. Especially important in the case of attitudes toward alcoholics may be a previous traumatic personal relationship with an alcoholic parent or other significant person in the family (Black, Bucky & Wilder-Padura, 1986; Boudreau, 1982; McGuire, 1969), or, the effect of personal drinking habits (Chappel, Jordan, Treadway & Miller, 1977).

Deborah L. Tamlyn R.N., Ph.D. is Associate Professor and Director of the School of Nursing, at Dalhousie University, in Halifax, Nova Scotia.

The Canadian Journal of Nursing Research *Fall 1989, 21(3), 31-47*

If future nurses are to be adequately prepared for their role in the provision of care to alcoholics, a better understanding about the short-term and long-term impact of various educational approaches that are aimed at promoting positive attitudes toward alcoholics is needed. Attitude change programs should also be based on a theoretical framework which can be tested through research.

Aim of the Study

The aim was to improve understanding of methods for improving attitudes of student nurses toward alcoholics. An evaluation was conducted to determine the effects of a three-hour Attitudes Toward Alcoholics (ATA) seminar based on Rokeach's (1973) theory of attitude change, on student nurses' attitudes toward alcoholics. As well, experience with an alcoholic and personal drinking habits were related to personal attitudes toward alcoholics.

Literature Review

To locate studies that examined the effect of specific programs on the attitudes of student health professionals toward alcoholics, a computer search was conducted using ERIC, MEDLINE, and Psychological Abstracts. Further studies were obtained by referring to the references of the primary articles. Studies were included if they involved post-secondary students enrolled in programs in health professions, and incorporated a formal research design. This yielded ten studies that examined the impact of a variety of educational experiences on attitudes of nursing, social work and medical students toward alcoholics (Bailey, 1970; Chappel, Jordan, Treadway & Miller, 1977; Chodorkoff, 1969; Chodorkoff, 1967; Davidhizar & Golightly, 1984; Ferneau, 1967; Fisher, Fisher & Mason, 1976; Gurel, 1976; Harlow & Golby, 1980; Sorgen, 1979).

The major features of each of the studies are outlined in chronological order in Table 1. Information is given on research design, measurement tools, sample size, program characteristics and research findings for each study. All of the ten studies used a pretest-posttest design; three of them included a control group. The average sample size was 35 and the range was 45. Measurement tools included the alcoholism questionnaire (Marcus, 1963) in four studies, and a semantic differential in three (MacKey, 1969). Two studies also used the version for alcoholics of the Attitude Toward Disabled Persons (Yuker, 1970) tool. All tools were reported to have previously established reliability and validity levels, but these were generally not reported within the articles.

The length of programs varied greatly. The shortest was 14 hours and the longest 12 weeks. It was difficult to compare time frames because specific

times spent in lectures, giving care to patients or in self-directed study were not indicated.

Most of the studies provided only limited information about specific content and pedagogic methods. Eight studies reported inclusion of psychosocial content, with four of these having some focus on attitudes. Discussion groups were incorporated in five studies but it was not stated whether they were structured in any specific way. In three studies, the students also had direct contact with alcoholics who were receiving treatment.

Table 1

Major Features of Ten Studies on Attitude Change Toward Alcoholics and Alcoholism

Study	1	2	3	4	5	6	7	8	9	10
Research design	P/P	P/P	P/P +C	P/P	P/P	P/P	P/P	P/P +C	P/P +C	P/P
Tools	ACA F-Scale A1	AQ	ACA F-Scale A1	SD	AQ	SD	SD	Aq	AQ	ATDP
Experimental n	26	29	30	71	37	33	48	16	35	40
Control n			20					36	20	
Characteristics										
Medical & psychosocial content	x			x	x	x	x	x	x	
Attitude content				x	x	x	x	x		
Length	30 days	12 wks	3wks	30 hrs	9 mos	14 hrs	28 hrs	10 days	3 wks	50 hrs
Lectures	x			x	x	x	x	x		x
Discussion gps	x			x		x	x			x
Direct contact							x	x		x
Field trips		x					x	x		x
Outcomes										
+ attitude chg.		p<.05				x	p<.05	x	p<0.4	x
+ Knowledge gain	p<.01	N/t	p<.01	x		p<.001	p<.01	p<.05	N/t	x
Analysis	t-test	t-test	t-test	N/t	t-test	t-test	t-test ANCOVA	t-test	MANOVA Scheffe	N/t

LEGEND: x = present; N/t = not tested; P/P = pretest-posttest;SD = semantic differential; +C = with control group

In terms of outcomes, six of the studies reported improved attitudes; in three studies, this change was statistically significant. Five of the six studies completed after 1976 reported positive attitude change (two reported statistical significance) whereas only one of the four studies done prior to 1976 achieved the desired attitudinal effect. The findings lend some optimism for the role of education in changing negative attitudes toward alcoholics, but, the weak research design and lack of precision in defining treatment variables limit generalization of the findings.

Theoretical Framework

Rokeach's (1973) theory of attitude change was selected as the theoretical framework for this study because it utilizes a cognitive approach which is appropriate within an educational context. This theory differs from other attitude change theories in its emphasis on values and self-conceptions. Rokeach (1983) states that a state of cognitive inconsistency will result when contradictions involving values are seen to have implications with respect to one's self-concept. The more a contradiction relates to self-cognitions, the greater the self-dissatisfaction. The psychological state of self-dissatisfaction is seen as "the central mechanism that triggers attitude change" (Rokeach, 1973). The model suggested by Rokeach is illustrated in Figure 1.

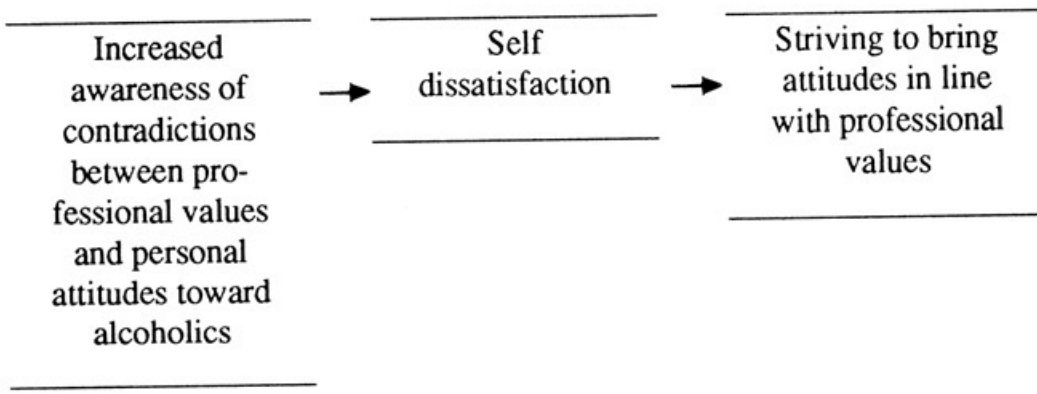

Figure 1
Theoretical model for the study

The method that Rokeach suggests is best suited to change attitudes is to "expose persons to information about their own belief system, or to selected features of it, in order to make them consciously aware of certain contradictions that chronically exist within it below the level of awareness" (Rokeach, 1973, p. 233). Awareness of contradictions between one's attitudes and values should lead to attitude change and reduced incompetent or immoral self-conceptions.

This study builds on Rokeach's theory of attitude change by examining whether increasing student nurses' awareness of their attitudes toward alcoholics and any contradiction between these attitudes and professional nursing values leads to short-term and long-term attitude change.

Hypotheses

1. Student nurses who do participate in the ATA (Attitudes Toward Alcoholics) seminar (versus those who do not participate) will have more positive attitude scores on posttest 1 (one week later).
2. Student nurses who do participate in the ATA seminar (versus those who do not participate) will have more positive attitude scores on posttest 2 (two months after ATA seminar).
3. Student nurses who report having an alcoholic family member will have more negative attitude scores than student nurses who do not report this.
4. Student nurses who report being non-drinkers of alcohol will have more negative attitude scores on both posttests than student nurses who report they drink alcohol.

Assumptions

1.Attitude change can result from a brief but significant experience.
2.Attitudes are reflective of a person's values.
3.People are able to identify and report their attitudes.

Limitations

1.The use of a non-random sample may result in findings that are related to unique features of the sample under study.
2.Participation in the seminar was voluntary and students who chose to participate may have had characteristics different from those who did not participate.
3.The variable, experience with an alcoholic parent, was self-reported data based on individual perception.
4.The experimental group may have communicated information about the ATA seminar to the control group.

Delimitation

Generalization of findings is limited because the size of the study sample was small in comparison to the number of diploma nursing students in Canada.

Methods

Sample

The sample consisted of 96 second year nursing students enrolled in a two-year diploma nursing program. There were 88 females and 8 males with the majority being between 19 to 21 years of age.

Equal numbers of students were randomly assigned to an experimental or control group. The experimental group attended the ATA seminar and the control group were given free time.

Data collection

Data were collected using the Alcoholism Questionnaire (Marcus, 1963) and the Attitudes Toward Alcoholics Persons tool (Yuker, 1965). The use of two tools permitted a stronger test of the hypotheses, and allowed for comparison of the two attitude measures.

The Alcoholism Questionnaire was developed at the Toronto Addiction Research Foundation and has been used in numerous studies with nurses, physicians, social workers and teachers (Ferneau, 1967; Marcus, 1963; Sorgen, 1979). It was developed from a factor analytic study and has established reliability and validity ratings (Harlow & Golby, 1980; Marcus, 1963, 1963a, 1963b).

The Attitudes Toward Disabled Persons (ATDP) tool (Yuker, Block & Campbell, 1960) is a 30-item Likert scale. It is a well-researched instrument with content validity and split-half reliability ranging from .78 to .84 (Shaw & Wright, 1969). An "alcoholic" version of the ATDP, which is constructed by substituting the word "alcoholic" for "disabled", was used in this study. Items were also modified to eliminate any gender bias. The ATAP has been validated for use in alcohol attitude research (Schmid & Schmid, 1973; Sorgen, 1979).

Demographic data were also collected on gender, age, relationships with alcoholic family members and drinking habits.

Treatment

The Attitudes Toward Alcoholics Seminar was approximately three hours in length. It incorporated a number of participatory exercises (Table 2) aimed at increasing students' awareness of their attitudes toward alcoholics, and of how these compared with the attitudes and values advocated by the nursing profession. The rationale for using only one training seminar was that the seminar was serving to reinforce values and beliefs that are incorporated throughout the nursing program. The importance of the seminar was that it highlighted the incongruency that often exists between what is espoused as nursing's position of caring toward all clients and the ambivalent and negative attitudes that students often experience toward alcoholics.

The first exercise consisted of having the students write a short description of their attitudes toward alcoholics. The importance of honest responses was

impressed upon the students by informing them that the exercise was designed to assist them in becoming more aware of personal attitudes. The benefits of having students write down their attitudes and beliefs were evident when reading their descriptions, which were vivid expressions of their feelings, beliefs, attitudes and experiences.

Following the Attitude Exercise, the subjects viewed a videotape entitled, "Attitudes". This video is the first in a four-part series on alcohol and the physician, developed by the KROC Foundation for the Study of Addictions. It is 20 minutes in length and traces the development of one person's attitude toward alcoholics from early childhood to adult life.

Students were asked for their reaction to the videotape and how it related to their own views toward alcoholics and alcoholism. Discussion was encouraged and it was emphasized that there are a wide variety of opinions surrounding the topic.

Table 2

Outline of the "Attitudes Toward Alcoholics" Seminar

Topic	Time
Introduction to the Seminar	10 minutes
Attitude writing exercise	15 minutes
Videotape - "Attitudes"	20 minutes
Large group discussion	20 minutes
Break	15 minutes
Small group discussion	30 minutes
Large group feedback	25 minutes
Role-playing exercise	40 minutes
Summary and evaluation	15 minutes

Students were then organized into groups of six or seven and were asked to identify the values advocated by the nursing profession toward the treatment of alcoholics and to discuss strategies for overcoming adverse attitudes and reactions to alcoholics. Following the small group discussion, the entire group reassembled and the discussion points were presented by a group recorder.

The final exercise consisted of three role-playing situations. In each of the role-play situations, two students acted the part of a nurse and an alcoholic. The purpose of the role-play situations was to demonstrate possible responses to difficult situations nurses can encounter in working with alcoholics and to help students internalize what it might feel like to be an alcoholic who has sought treatment. Three situations were described and student volunteers were selected. The role players and the audience were asked for input after each situation.

At the end of the seminar, the students were asked to identify what they liked and did not like about the seminar and whether the seminar had influenced their attitudes toward alcoholics. These responses were submitted in writing.

Design

A modified posttest-only control group design (Campbell & Stanley, 1963) was used to test the research hypotheses.

Equal numbers of students were randomly assigned to the experimental and control groups. The experimental group attended regular classes and participated in the three-hour ATA seminar. The control group attended all regular classes but did not participate in the ATA seminar. Posttests were completed in the week following the seminar and again two months after the first posttest.

In order to control for experimenter bias, a nursing professor who was not known to the students conducted the seminar. Specific instructions were given to assist with the seminar. The researcher attended the seminar to observe whether the intended approach was implemented.

Data analysis

The data were analyzed using the statistical package for the Social Sciences (Klecka, Nie and Hull, 1975). Descriptive statistics were computed for the demographic variables gender, age, relationship with alcoholics, drinking habits, ATAP scores and AQ scores.

A multivariate analysis of variance (MANOVA) was conducted, using the scores obtained on the ATAP and the Alcoholism Questionnaire for the first and second posttests to determine whether any of the scores changed significantly. The .05 level of significance was chosen because it is commonly used in attitude studies.

Findings

Seventy-nine students (91.8%) completed the demographic questionnaire, the AQ and the ATAP one week after the ATA seminar. Forty-one of the respondents had attended the seminar (experimental group) and 38 had not (control group). Two months later, 35 subjects from the experimental group and 37 subjects from the control group completed the AQ and the ATAP a second time.

Cross tabulation analysis of the demographic data revealed that the majority of subjects were females (89.9%) aged 16-25 years (69.6%) who drank regularly (85%). In terms of experience with alcoholics, 25% reported having an alcoholic parent, 7.6% an alcoholic sibling and 26.6% an alcoholic friend.

Hypothesis #1

The only factor that showed a significant difference was Factor One (Table 3). Factor One relates to the belief that emotional difficulties or psychological problems are an important contributing factor in the development of alcoholism. The experimental group concurred with this belief more strongly than the control group.

Table 3

Multivariate Analysis of Variance with AQ I Scores

Source of Variation	Hypoth SS	Error SS	Error MS	F	Sig. of Univariate F
F1	5.24	98.00	1.27	4.12	.04
F2	.87	77.81	1.01	.86	.35
F3	.006	55.41	.72	.008	.92
F4	.10	87.66	1.14	.08	.77
F5	4.91	128.90	1.67	2.94	.09
F6	.006	45.56	.59	.01	.91
F7	.46	90.52	1.17	.39	.53
F8	.005	51.07	.66	.008	.92
F9	.48	42.49	.55	.867	.35

Multivariate F = .87; Significance F = .55

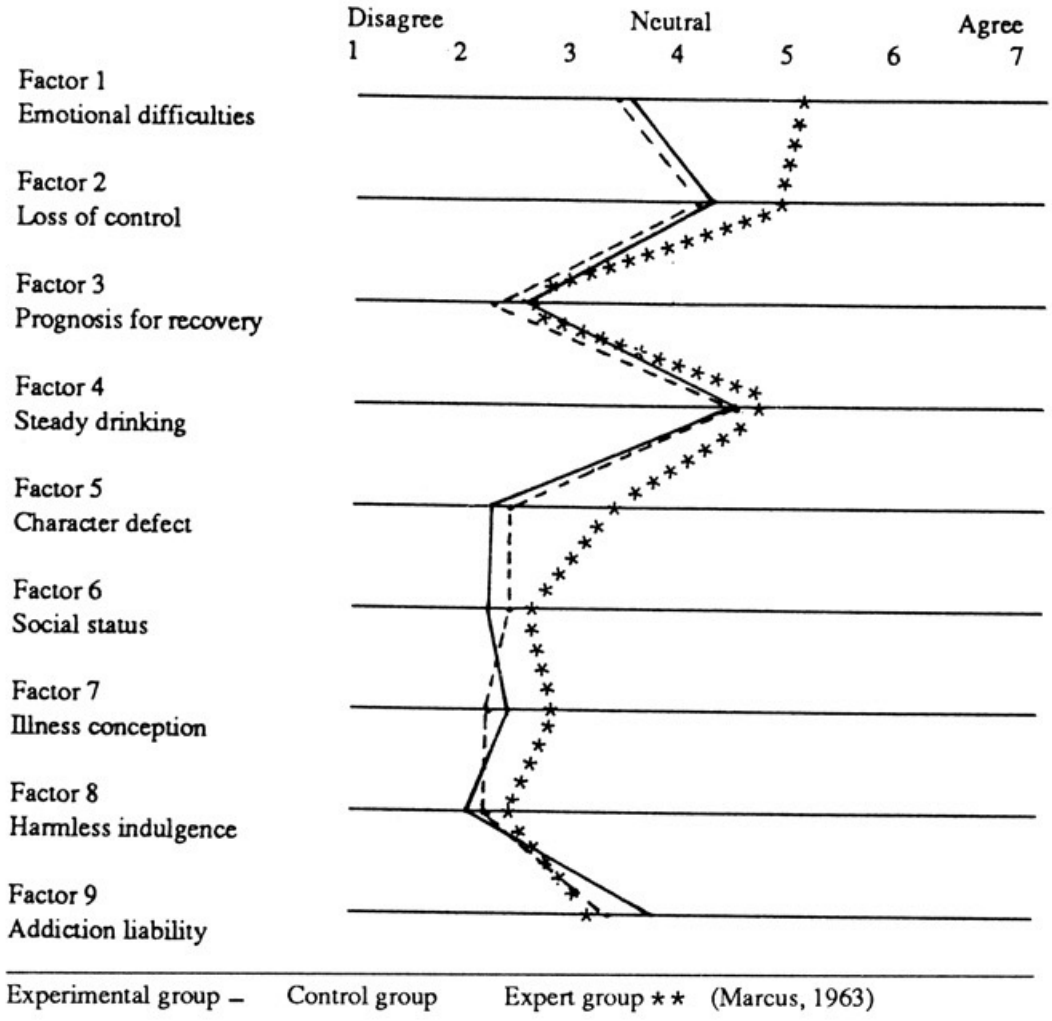

Figure 2
Comparison of AQ factor profiles for Experimental and Control groups with Expert group

Hypothesis 2

The second hypothesis stated that student nurses who participate in the ATA seminar will have more positive attitude scores on the second post-test(two months later) than student nurses who do not participate. A MANOVA was computed using ATAPI and ATAPII as dependent variables. The MANOVA results indicated that the experimental group had higher ATAPII scores; the mean ATAPII scores for the experimental and control groups were 102 and 95.7 respectively. The multivariate test of significance had an F value of 6.75, ($p = .01$).

The AQII mean factor scores were compared using t-test analysis. There was no significant difference between any of the mean factor scores. There was less than a 0.5 point spread between the nine mean factor scores obtained by the experimental and control groups.

To determine the significance of the AQ mean factor scores, the AQ I factor scores for the experimental and control group were plotted alongside those obtained by alcohol experts in a study done by Marcus in 1963. The graph of the AQ factor profiles for the experimental and control groups (Figure 2) was consistent with the graph of factor scores previously obtained by the expert group in Marcus' study on all but Factor One. In terms of Factor One, the two groups in this study were situated on the disagree side of the scale, whereas the expert group were on the agree side. There is less than a one-point difference between the mean factor scores obtained by the experts and those obtained by the two study groups on the other eight factors. Marcus (1963) states that differences in mean factors scores which are less than one are not likely to be significant.

Hypothesis 3 and 4

MANOVA procedures were also used to address the third and fourth hypotheses. The MANOVA used the ATAPI and ATAPII scores as the dependent variables and group status (grp), experience with an alcoholic parent (alcp) and frequency of drinking (freq) as the independent variables. The results of these analyses (Table 4) indicated that the only variable which had a significant multivariate F was group status ($F=3.08$, $p < .01$). The AQ questionnaire does not provide a global score; as such, the AQ results were not used in testing the third and fourth hypotheses.

Table 4

Multivariate Analysis of Variance with ATAP scores

	Posttest I		Posttest II	
Source of variation	F	Sig	F	Sig
Group status (Grp)	4.03	.05*	6.75	.01**
Alcoholic parent (AlP)	.05	.80	2.17	.14
Frequency/drinking (Frq)	.98	.43	1.37	.24
Grp x Alp	1.68	.19	.36	.54
Grp x Frq	1.32	.27	2.09	.10
AlP x Frq	.34	.79	1.05	.37
Grp x AlP x Frq	2.72	.07	.09	.90

* $p<.05$
** $p<.01$

The ATAP results support the first and second hypotheses. Students who attended the ATA seminar had significantly higher scores (p=.01) on both posttests than those students who did not attend. No difference existed on eight of the nine items of the AQ test between the experimental and control groups during either posttest. No significant relationship was found between the variables, experience with an alcoholic parent and frequency of drinking, and ATAP scores. Self-reported attitude change data obtained from the experimental group during the ATA seminar indicated that 46% believed that their attitudes had become more favorable as a result of the seminar.

One explanation for the difference in findings between the ATAP and the AQ is that the two tools measure different concepts. In the 10 studies that were reviewed, only Sorgen (1979) used two questionnaires in the same study. Sorgen also reported opposite findings; she found no ATAP difference but reported significant differences in four of the nine AQ factors.

Marcus (1963) states that the Alcoholism Questionnaire was designed to measure opinions and beliefs about alcoholics and alcoholism. There are salient differences between beliefs and attitudes and it is possible for a person to have appropriate beliefs concerning alcoholism and yet hold negative attitudes toward alcoholics.

To understand the significance of the AQ scores better, a comparison was made between the AQ scores obtained by the nursing students in this study and AQ scores obtained by experts in the field of alcoholism treatment reported in an earlier study (Marcus, 1963). This comparison indicated that the nine mean factor AQ scores were highly similar for the two groups, suggesting that the students in this study held opinions and beliefs that were consistent with those of experts working in the field of alcoholism. This is encouraging because it means that students can be viewed as having made appropriate responses to the AQ items.

The results from the first ATAP posttest support Rokeach's (1973) theory that attitude change is integrally linked to one's values and self-conceptions. The ATA seminar stressed the importance of professional nursing values that emphasize the right of all people to be respected and to receive understanding and competent care. It also afforded the students an opportunity to reflect on their own attitudes toward alcoholics.

Rokeach (1973, p. 229) states that, "If there is a contradiction between a value and an attitude, the less central attitude should change in a direction that will make it consistent with the value." Furthermore, any information that produces self-dissatisfaction, even if transmitted by a lecture should result in the desired attitude change." In this study, the ATA seminar attempted to produce self-dissatisfaction in students whose attitudes toward

alcoholics contradicted professional nursing values that they should implicitly accept in aspiring to become nurses. The findings were consistent with that of Rokeach and McLellan (1972) who found that subjects who were given information about the values held by significant others were likely to compare these with their own values.

The findings also indicate that short-term changes in attitudes toward alcoholics are possible and that they can persist over a period of months. Rokeach states that long-term changes are "less susceptible to alternative interpretations because the more removed in time a posttest is from an experimental treatment, the more likely that the changes will be genuine ones" (1973, p. 232).

The ATAP MANOVA results did not show that a significant relationship existed between having an alcoholic parent and holding negative attitudes toward alcoholics. The written attitude descriptions of some students indicated a link between negative experiences with an alcoholic family member or relative and ambivalent or negative attitudes toward alcoholics. One student reported that, although her alcoholic father had left home when she was eleven, she still had an ambivalent attitude toward alcoholics. Another student reported that her negative attitude was the result of being molested by an alcoholic. Other students, however, reported that the experience of living with an alcoholic parent gave them better insight into alcoholism and helped them to be less critical of alcoholics in general.

The literature suggests that traumatic personal relationships with alcoholics can have a long-lasting negative impact on attitudes (Black, Bucky, & Wilder-Padura 1986). What remains unclear is why this happens to some people and not others. The students who reported that they drank alcohol evidenced attitudes similar to those who reported they did not drink. This finding differed from that of Chappel, Jordan, Treadway and Miller (1977) who found that medical students who reported being non-drinkers had more negative attitudes toward alcoholics.

Discussion

The results of this investigation demonstrate that attitudes of nursing students toward alcoholics can be positively influenced by a three-hour attitude seminar. It is important to note, however, that many nursing programs also address the area of attitudes within their clinical practicums. A replication study would be useful in determining whether the ATA seminar would also be effective with other groups.

The questions raised by the different results obtained from the Alcoholism Questionnaire (AQ) and the Attitudes Toward Alcoholics Persons (ATAP)

tool should be further addressed. The tools measure different concepts. To date, there have been few studies that have used more than one tool, and consequently, little is known about the comparability of various belief and attitude measures.

The relationship between attitudes and behaviour should also be considered. This study accepts Rokeach's (1973) theory that attitudes can best be understood in relation to the values people hold and the kind of person they aspire to be. Attitudes are seen as an important influence on behaviour, not as a necessary or sufficient cause of behaviour For example, some students may have positive attitudes toward alcoholics, but be unsure of how to help them or their behaviour may be strongly influenced by the expectations of others.

The intent of this study was to promote improved attitudes toward treating alcoholics. During the seminar, students indicated awareness that a generalized negative attitude exists among health professionals toward alcoholics. They noted reasons for this and discussed ways of dealing with difficult situations. Recognizing that there are many recommended approaches for helping alcoholics, students need assistance to identify which approaches are congruent with professional values.

The results of this study indicate that participating in an intense educational seminar can influence student nurse's attitudes toward alcoholics. The ATAP results and the written reports demonstrate that students who are given opportunities to examine their attitudes and professional values can improve their attitudes toward alcoholics. Students noted, in the review period, that the seminar had heightened their awareness of the problems that exist concerning the care of alcoholics. They identified the need for further classes dealing with problems that confront nurses when working with alcoholics and their families.

Many questions still exist, however, in relation to the nature of attitudes and the qualitative differences between student attitudes and beliefs. There has been no indepth analysis of nurses attitudes and beliefs toward alcoholics reported in the literature; therefore one should be undertaken. The qualitative findings from the student papers indicated that some students who had positive or negative attitudes scores on the ATAP reported they had uncertain or ambivalent attitudes toward alcoholics. Attitude measures sometimes force responses which may not be totally accurate. Studies that include qualitative data should lead to a deeper understanding of the complex nature of attitudes and about how best to foster empathetic attitudes toward alcoholics and other groups that are the subject of prejudice.

More educational research is needed if progress is to be made in overcoming negative attitudes toward alcoholics. Educators must recognize the importance of attitudes and the impact that attitudes have on the care provided to alcoholics and their families. More educational experiences are needed that help students to address their attitudes toward alcoholics and to acquire the knowledge and skills needed to deal with the challenges related to working with alcoholics. It is also essential that health care professionals and nurse educators role model empathetic and supportive attitudes toward alcoholics and their families to their students. Alcohol abuse and related problems are deemed to affect twenty percent of the population (Edwards, 1987): nursing education can ill-afford to neglect such a widespread concern.

REFERENCES

Bailey, M.B. (1970). Attitudes toward alcoholism before and after a training program for social caseworkers. *Quarterly Journal of Studies on Alcohol, 31* 669-683.

Black, C., Bucky, S. & Wilder-Padura, S. (1986). The interpersonal and emotional consequences of being an adult child of an alcoholic. *The International Journal of the Addictions, 21*(2), 213-231.

Boudreau, R.J. (1982). Alcohol abuse and the family system. *Canada's Mental Health,* June, 17-18.

Caetano, R. (1987). Public opinions about alcoholism and its treatment. *Journal of Studies on Alcohol, 48* (2), 153-160.

Campbell, D.T. & Stanley, J.C. (1963). *Experimental and quasi-experimental designs for research.* Chicago: Rand McNally College Publishing Company.

Chappel, J.N., Jordan, R.D., Treadway, B.J. & Miller, P.R. (1977). Substance abuse attitude changes in medical students. *American Journal of Psychiatry, 134*, 379-384.

Chodorkoff, B. (1967). Alcoholism education in a psychiatric institute. 1. Medical students: Relationship of personal characteristics, attitudes toward alcoholism and achievement. *Quarterly Journal of Studies on Alcohol, 28*, 723-730.

Chodorkoff, B. (1969). Alcoholism education in a psychiatric institute. 2. Medical students: Relationship of personal characteristics, attitudes toward alcoholism and achievement. *Quarterly Journal of Studies on Alcohol, 30*, 657-664.

Davidhizar, R. & Golightly, J. (1984). Student nurses change attitudes toward alcoholic clients. *Alcohol Health and Research World*, 37-38.

Edwards, G. (1987). *The Treatment of Drinking Problems - a guide for the helping professions.* Scarborough: The C.V. Mosby Company.

Ferneau, E.W. (1967). What student nurses think about alcoholic patients and alcoholism. *Nursing Outlook, 15*, 40-41.

Fisher, J.V., Fisher, J.C. & Mason, R.L. (1976). Physicians and alcoholics: Modifying behaviour and attitudes of family-practice residents. *Journal of Studies on Alcohol, 37*, 1686-1693.

Gurel, M. (1976). An alcoholism training program: Its effect on trainees and faculty. *Nursing Research, 25*, 127-132.

Harlow, P.E. & Golby, M.J. (1980). Changing nursing students' attitudes toward alcoholic patients: Examining effects of a clinical practicum. *Nursing Research*, 59-60.

Johnson, N. (1983). Educating health professionals about alcohol and other drug issues: The federal role. *Alcohol Health and Research World*, 3-10.

Klecka, W.R., Nie, N.H., & Hull, C.H. (1975). *Statistical Package for the Social Sciences Primer*. New York: McGraw Hill

MacKey, R.A. (1969). Views of caregiving and mental health groups about alcoholics. *Journal of Studies in Alcohol, 30*, 665-771.

Marcus, A. (1963). *The alcoholism questionnaire: Administration, scoring and interpretation.* Toronto: Alcoholism and Drug Addiction Research Foundation.

Marcus, A. (1963a). A comparison of popular beliefs about alcoholism in four populations. *Studies in Alcohol Education*, Project 2: Report 1.

Marcus, A. (1963a). A comparison of opinions about alcoholism in four populations. *Studies in Alcohol Education*, Project 2: Report 2.

McGuire, W.J. (1969). The nature of attitudes and attitude change. In Lindzey Gardner & Elliot Aronson (Eds.), *The Handbook of Social Psychology*. Massachusetts: Addison-Wesley Publishing Company, 136-314.

Rokeach, M. (1983). *The nature of human values*. The Free Press.

Rokeach, M. & McLellan, D.D. (1987). Feedback of information about the values and attitudes of self and others as determinants of longterm cognitive and behavioral change. *Journal of Applied Social Psychology, 2*, 236-251

Rosenbaum, P.D. (1977). Public health nurses in the treatment of alcohol abusers. *Canadian Journal of Public Health, 68*, 503, 508.

Sawyer, C.R. (1978). Methodology in measuring attitude change: Problems and alternatives. *Journal of Drug Education, 8* (4), 289-297.

Schmid, N.J. & Schmid, D.J. (1973). Nursing students' attitudes toward alcoholics. *Nursing Research, 22*(3), 246-248.

Schlesinger, S.E. (1986). Substance Misuse Training in Nursing, Psychiatry, and Social Work. *The International Journal of the Addictions, 21* (4 & XX), 595-604.

Shaw, M.E. & Wright, J.M. (1969). *Scales for the measurement of attitudes*. New York: McGraw-Hill Book Company.

Sorgen, L.M. (1979). Student learning following an educational experience at an alcohol rehabilitation center in Saskatoon, Saskatchewan, Canada. *International Journal of Nursing Studies, 16*, 41-50.

Videotape, *Attitudes:* Alcohol and the physician, Part I. Producers: Kroc Foundation for the Study of Addiction

Yuker, H.E., Block, J.R. & Campbell, W.J. (1960). *A scale to measure attitudes toward disabled persons*. Alberton, N.Y.: Human Resources Foundation.

Yuker, H.E. (1970). Attitudes as determinants of behaviour. *Journal of Rehabilitation, 31*, 659-664.

RÉSUMÉ

Les attitudes à l'égard des alcooliques chez les étudiants en sciences infirmières

Cette étude avait pour objectif de concevoir une démarche pédagogique susceptible d'aider les étudiants en sciences infirmières à adopter des attitudes positives à l'égard des alcooliques. Le concept d'attitude et les théories de modification des attitudes ont été étudiés pour identifier le schéma théorique susceptible de convenir à un séminaire de trois heures portant sur les "Attitudes à l'égard des alcooliques" (AEA).

Le séminaire AEA qui incorpore la théorie de modification des attitudes de Rokeach a été organisé pour un échantillon randomisé d'étudiants inscrits au diplôme en sciences infirmières. Des épreuves de post-testing, l'ATAP (Yuker, 1965) et le questionnaire sur l'alcoolisme (Marcus, 1963) ont été administrés une semaine et deux mois après le séminaire. Les résultats de l'ATAP ont révélé que les attitudes des étudiants en sciences infirmières qui avaient participé au séminaire AEA à l'égard des alcooliques étaient nettement plus positives que celles d'un groupe témoin qui n'avait pas suivi ce séminaire. D'après les résultats du questionnaire sur l'alcoolisme, les sujets n'affichent pas de différence marquée au niveau des croyances. Par ailleurs, les données qualitatives obtenues lors du séminaire AEA indiquent également que les attitudes du groupe expérimental reflètent une amélioration du comportement à l'égard des alcooliques.

Canadian Journal of Community Mental Health

An Interdisciplinary Journal

Biannual, ISSN 0713-3936

Edited by Edward Bennett, Ph.D. and Barry Trute, D.S.W.

The Canadian Journal of Community Mental Health publishes articles concerning the promotion of positive mental health, and the prevention and treatment of mental health problems in community settings. Recent theme issues include **Women and Mental Health** and **Community Mental Health Services for the Chronically Mentally Disabled.** CJCMH also features book reviews.

Institution	Volume 7 (1988)	$30.00
	Volumes 7-9 (1988-1990)	$80.00
Individual	Volume 7 (1988)	$20.00
	Volumes 7-9 (1988-1990)	$55.00
Student	Volume 7 (1988)	$15.00
	Volumes 7-9 (1988-1990)	$40.00

Please add $5.00 for United States and $10.00 for other countries per volume.
Limited back issues are available. Send check or money order to:

Wilfrid Laurier University Press
Wilfrid Laurier University
Waterloo, Ontario
N2L 3C5

WORKLOAD AND OCCUPATIONAL STRESS IN NURSING

Vivienne Walters and Ted Haines

Stress has long been recognized as a pervasive feature of work for nurses and there is evidence that it may be increasing in severity (Calhoun, 1980; Clever & Omenn, 1988; Gray-Toft & Anderson, 1981; Haché-Faulkner & Mackay, 1985; Kahn & Westley, 1984; Klitzman & Stellman, 1986; Leatt & Schneck, 1985; Martin, 1984; Parasuraman & Hansen, 1987). This paper presents qualitative data from a study of nurses' experiences with regard to occupational stress. The major source to which they attributed their stress was workload; that is the focus here. In addition to the amount of work (perhaps the most immediate connotation of workload) other aspects of the problem will be considered. It will be argued that the significance of heavy workloads can only be fully understood in the context of other features of nurses' work, as well as "cutbacks" in public funding of health services. Yet as we note in conclusion, it is difficult to situate nursing in this broader context, given the absence of good documentation of the work nurses do and the ways in which it has been changing.

Method

Between November 1984 and March 1985, a total of 123 interviews were conducted with nurses employed in two hospitals in southern Ontario. The nurses were part of a larger sample of 492, which included 311 industrial workers as well as 58 other hospital employees. Industrial workers were drawn from six workplaces — carpet manufacture, two steel companies, aluminum can, rubber and brake manufacturing. The hospital workers were in housekeeping and laboratories. Nurses were analysed separately because they formed the largest most homogeneous group in the hospitals, who were also distinctive in their professional status. Clinical areas in nursing were chosen in consultation with nurses' health and safety representatives. The sample in each hospital included Registered Nurses and Registered Nursing Assistants working in a general medical ward, in the operating room and as I.V. nurses. One hospital (415 and 722 beds in two locations) was unionized

Vivienne Walters, Ph.D. is Professor in the Department of Sociology. Ted Haines, M.D., M.Sc. is Assistant Professor in the Department of Clinical Epidemiology and Biostatistics. Both are at McMaster University, in Hamilton, Ontario.

The Canadian Journal of Nursing Research *Fall 1989, 21(3), 49-58*

and the nurses' union distributed letters from us to their members, explaining the nature of the study. Nurses were asked to instruct their union if they did not wish to have their name released. From the lists of those who did not object to the release of their name and address (82% agreed to this) either names were selected at random, or, if the numbers in an area were small, everyone was asked to participate. The other hospital (435 beds) was non-unionized, and in this case the administration provided appropriate complete lists of names and addresses from which a random sample was drawn. The response rates for nurses in the unionized and non-unionized hospitals were 64% and 73% respectively.

Ninety eight per cent of the sample were women and 59% were employed full time. With respect to age distribution, 21% were under 30 years, 47% were between 31 and 40, 27% between 41 and 50, and 5% were over 50. Thirty seven per cent had been with their present employer for less than five years, 18% had been employed in the same hospital for between five and nine years, 26% for ten to 14 years, and 19% for 15 years or more. Registered Nurses constituted 80% of the sample; the interviews with them and with the Registered Nursing Assistants were analysed together, so that this paper does not seek to identify differences between the two groups.

Respondents were interviewed about hazards in their workplaces and their knowledge and perceptions regarding various aspects of occupational health and safety. Interviews were conducted by trained interviewers. They usually took place in respondents' homes and, on average, lasted for about two hours. One component of the interview concerned stress. Each person was asked "Do you feel stress as a result of your work?". If the answer was yes, this was followed up with "What causes it?" and "Has stress from work affected your health and safety?"; "How?". The data presented below focus on the responses to these questions, in particular, respondents' descriptions of the sources of stress. The questions were open-ended and answers were recorded verbatim.

The magnitude of the differences between nurses and industrial workers suggests that the high levels of stress reported by nurses were not an artifact of the questions posed. Eighty seven per cent of nurses reported occupational stress, compared with 59% of industrial workers (X^2=28.74, p<.001). Work-load was identified as a stressor by 71% of these nurses and by 32% of the blue collar workers (X^2=42.03, p<.001). Other data from this study are reported in Walters and Denton (forthcoming) and Walters and Haines (1988a, 1988b).

The approach in this research departs from that which is most common in the literature on job-related stress in that respondents were not presented with predetermined categories of response. Instead, the aim of the analysis

was to grasp nurses' own definitions of their situations. While broad themes were quantified, the focus was not on statistical analysis and the identification of discrete categories. Rather, the qualitative data are emphasized so as to convey better the meaning which nurses ascribed to their experiences, and, the ways in which they saw these experiences as being interrelated — a fabric of connectedness which is communicated most readily through qualitative analysis.

Perceptions of Stress

A profile

Eighty seven per cent of nurses reported stress as a result of their work. Stress was experienced as something negative; hardly any respondents spoke of the benefits of stress. Comments such as, "It is energy feeding for me," and "I'm very comfortable in what I do. The stress I feel helps me function better — it's not a harmful thing," were extremely rare. Another pattern was that almost no one referred to safety hazards, exposure to various toxic substances, or the threat of infectious diseases. While these problems were discussed at other points in the interviews, they were hardly ever raised in relation to stress. Instead, respondents emphasized the psycho-social environment, not the physical environment. The primary causes identified were: heavy workload (mentioned by 71% of those reporting stress); problems with supervisors and other authority relations (31%); high levels of responsibility (28%); fear of mistakes (21%); hours and scheduling of work (20%); dealing with patients and their families (17%); relations with co-workers (15%); and coping with death (15%).

Of the nurses who reported stress, 53% said that it had affected their health already in some way. Among the nurses who had experienced health effects, 9% said their health had been affected a great deal and 46% said that the effects were moderate. The main health effects they reported were headaches and muscle tension (mentioned by 39%) and emotional problems such as anxiety, tension, irritability and depression (mentioned by 21%). The vast majority of the sample felt that stress could affect health.

Workload was identified as the primary source of job related stress; as such, it is the central focus in this paper. Its significance is multifaceted and the following sections show how it cannot be artificially divorced from the other categories of attribution — that workload assumes added significance in the context of other features of the work.

Quantity and quality of work

When nurses spoke of workload as a source of stress, without exception they meant overload, not underload. The prime manifestation of this was the

pace of work. Respondents spoke of the "rush, rush, rush": "The workload is so heavy you think you can't cope with it;" "You have work that has to get done, you miss breaks and lunches; you are pushed and pushed and pushed;" "It's hectic;" "There's too much to do in too short a time. The beeper's going off every five minutes."

The problem of overload was consistently linked with being short staffed and feeling the pinch of "cutbacks": "We're understaffed. The bottom line is, no money;" "There's not enough money for more staff;" "Everything is budget, you know." Several respondents noted increases in numbers of patients without corresponding increases in nurses. "The pressure is getting more now than before. Less staff. Patients are getting sicker than they were 10, 15 years ago."

While the quantity and the pace of work was a primary theme, other issues also stood out and highlight the relationships between different elements in the work. Alongside the issue of quantity of work there was also that of the quality of work. These appeared to go hand-in-hand; quality became an issue partly because of the fast pace of work. "You are so busy, you don't have time to do the job safely." Errors could have consequences for patients' welfare, as well as for nurses themselves and this dual responsibility was summed up by one nurse who pointed out that a hospital is not a typical work environment because "it's not just your workplace, you have patients to worry about too". Many respondents noted the possibility of accidents and errors because people might become "sloppy" or "careless" because of fatigue. Some pointed out that they had to take short cuts because they just couldn't handle the workload otherwise. "Anyone who says they haven't is a liar." Another nurse said that, "You don't have the time to be extra careful." Others noted that you have to establish priorities and, "You do the top priority things first, the rest doesn't get done or done well." Some simply acknowledged that they didn't work quite as well after a certain point: "I don't hit the veins as well at the end of the shift as at the beginning."

The possibility of a deterioration in the quality of patient care had threatening implications. The charges laid against Susan Nelles and the subsequent commission of enquiry, have made nurses more aware of their legal accountability and vulnerability. One writer (Day, 1987) has described the events as a modern day witch hunt, and there is persuasive evidence that nurses were made scapegoats. In such a context, workload and quality issues assume an added dimension.

> You become too careless and people suffer. There is never enough time and you get worried that you might not be doing something with enough care but you have to get on with it. And with this Susan Nelles thing, you have to make sure you cover yourself. You get overtired, rundown and irritable.

Given accountability for decisions, yet lack of support, heavy workloads are especially stressful because they help to create the conditions in which the quality of work can deteriorate. The problem is further aggravated by the wide role set of nurses and the tensions within this.

Limits to autonomy

Apart from the impact of fiscal restraints, nurses' autonomy is restricted in other ways too. Their role set is wide and the potential for conflicting demands is high. They have to deal with their own nursing superiors, fellow nurses, doctors, patients, patients' families, housekeeping staff and the administration. The expectations within this network can be contradictory, unpredictable and high; the cumulative workload and uncertainty become stressful.

> There are too many things to do. Expectations are high and they come from diverse levels — the patients, the relatives, co-workers, the doctors. The doctors especially want the tests done *now*. Instant decision making causes stress. The condition of patients can change in a minute and you have to make decisions that you are accountable for.

> There is always someone who is nattering at you — the patients, the doctor, the head nurse. It doesn't matter what you do, how fast you work or how well you work, someone is on you. You get it even if something happens that isn't your fault. Doctors are, frankly, a supreme pain.

Within this role set, relationships with doctors can be particularly problematic and nurses' accounts of their difficulties highlight their professional subordination. The resulting problems can be felt more intensely when there is already short staffing and nurses are tired, working at their limits. Doctors' reactions were often described as quite negative and temperamental. In nurses' eyes, they "think they are gods" and "you have to grovel", or "they have short tempers and could end up yelling at you."

> There's things that surgeons want but can't have because of budget cuts. They jump up and I can't do anything about it. You can stand on your head and spit nickels some days and it won't matter, it's not good enough for them.

It was difficult to establish a dialogue because physicians "tend to tell you what to do and they're not interested in hearing what you have to say." Nurses described the struggles that could follow unreasonable demands from doctors; "We just told him we wouldn't do it until we got help, which we finally did." Again, nurses can become scapegoats:

> Doctors! That's stress right there. I have worked with men with no patience with things that go wrong. When something does go wrong, it's you that get's the blame. Some girls just have to leave surgery when they get upset. Some nurses leave angry with tears in their eyes. When you are told you are not doing your job properly, it puts you on edge. You wonder what you are going to do wrong next. You get nervous and tense.

The accountability of nurses, the conflicting expectations they face and their professional subordination all point to nurses' limited control over their work. Each of these can exacerbate the stress associated with heavy workloads, and the hectic pace associated with heavy workloads may further erode nurses' sense of control over their work. Other comments too, were symptomatic of this lack of autonomy — comments about the satisfaction they derived from work and their inability to organize their work according to their own conception of its "core" elements.

Diminished satisfaction

A heavy workload can affect the quality of patient care and this was inconsistent with respondents' conception of their role. For nurses, who saw themselves as serving patients, this challenge to the caring elements of their work was a source of frustration and stress. Respondents often linked the pace of work with ways in which they could no longer spend time on some things that they saw as important parts of their work.

Some expressed their views in general terms: "I feel stress from not being able to take the time to do the job the way I'd like to," or, "We don't have enough staff and there are personal commitments and goals that are not being met because you are too busy." More specifically, what was irksome were the limits on patient care. One nurse said that they are becoming technicians and implied that the emotionally supportive elements of the profession are disappearing; "There's far less time with the patient". Another said "I do not feel I'm the caring nurse I used to be," and others expressed similar feelings.

> We work 12 hours yet we never have enough time to be with each patient and give proper care.

> You cut corners but not to put anyone in danger. I would like to talk to patients and give explanations for what I'm doing but I don't have time.

The theme of limited satisfactions, of not being able to focus more on patient care, was paralleled by another set of comments that distinguished

between "core" features of the work and other things respondents had to do in their jobs.

"Core" vs other work

What constituted the "core" work was not always clear, but such distinctions between usual or important or more meaningful work and "other" work ran through the interviews. In part, this represented an ordering of priorities. In part, the other work was seen as an unwelcome or unnecessary addition to normal work routines. The comments above suggested priorities — that the important work of patient care is suffering and being sacrificed because of cutbacks and staff shortages. Other respondents drew the boundaries in different ways, but it was common that some type of distinction was made. That which was "extra" or "other" was the more frustrating, because it interfered with the core work and forced compromises: core work was not done or not done as well as it might otherwise have been. Such distinctions again signify nurses' lack of control over definitions of priorities — the limits on their ability to place core activities first and thereby define the nature of nursing work.

For some respondents it was paperwork, the administrative details, that took them away from what they saw as their work: "It's stress from workload...trying to do a job and doing the administrative stuff on top of it." Others made a distinction in terms of time: "Overtime, to me, is work I do that's extra, that I don't get paid for." For another nurse it was the challenge of learning new skills (in this case how to use a computer) that took time away from other things.

There were also elements of work that were created by others. For example, nurses spoke of the frustration of facing a heavier workload because fellow nurses were not completing their own duties. It might be the case that "older staff don't work fast enough" or grumbles that "floor nurses could be doing what I.V. nurses are doing." Some respondents spoke of colleagues who weren't very committed to their work and created extra work for others.

> If you work with a nurse that is there to collect her monthly rate and doesn't give a poop what is going on, then you must pay attention to what she is doing or not doing.

A nurse might have extra work to cover for a receptionist who is off duty or they might have to do what they characterized as non-nursing jobs.

On top of this there is the work generated by doctors, this again points to the limits of nurses' control over their work.

> The hospital has a lot of infectious diseases and doctors do a number of studies on these, except it's the nurses who do the work. We have to drop everything and do the bloody study. As if we didn't have enough work to do. The doctors tell us that they are saving the hospital dollars, because the drugs are free. But it's the nurses who save the dollars. We do all the work and get paid no extra.

Of course, nurses also seek to assert some control over their work. Directors of nursing report that nurses are less willing to perform duties not specifically part of their own job description (Kahn & Westley, 1984). It is likely that nurses are drawing more clearly the boundaries of their work in an effort to manage an increasing and often unpredictable workload. They may resist in other ways too. For example, one nurse described the advice she received from a more senior colleague — not to respond immediately to paging, but to deliberately finish what she was doing and thereby try to establish her own priorities.

Comments

Two themes emerge from the analysis presented here. One concerns the way we conceptualize workload. The other highlights the lack of information on what nurses actually do in the course of a working day. Nurses' accounts of the stress they experienced suggest that workload should not be interpreted as simply "more work". Its significance lies also in the ways in which increased demands on nurses are linked with other features of the work, such that they have to be viewed as interconnected elements of the occupation. For example, more work, working faster, assumes a greater significance because of nurses' accountability, because of the fact that they are responsible for patients' lives and health, and because they have reason to believe that errors might be too readily attributed to them. The lack of predictability and their lack of control emerge in these accounts. They are compelled to prioritize different elements of the work, but not according to their own definitions of the core features of the occupation.

Increased workloads were attributed to government health care policy. Yet it was in the search for validation of nurses' comments and measures of how their work has changed, that we became aware of the absence of such information. It is difficult to situate nurses' accounts in a broader context. Changes in the health care sector suggest that nurses' workloads have also been changing. The development of medical technology has added new forms of work to traditional responsibilities (Strauss, Fagerhaugh, Suczek, & Wiener, 1985). Efforts to reduce the demand for hospital care have encouraged shorter stays; this has increased patient turnover and created a patient population that is sicker and more in need of nursing care. So too, do new management systems appear to have increased workloads (Campbell, 1987,

1988). These changes have all occurred at a time when provincial governments have been promoting efficient financial management and the transformation of hospitals into "business-oriented institutions" (Ontario, Ministry of Health, 1983). Intuitively then, we are led to assume that technological change plus the tightening of the purse strings have altered and increased workloads for hospital employees. However, there are few published measures of what nurses do and how this has been changing. Information on ratios of hospital beds to full-time equivalent nurses, even when combined with data on changing levels of support staff, tell us little about what nurses actually *do*. And as Campbell (1988) has argued, new methods of accounting nursing time do not include many aspects of nurses' work.

The data presented here suggest that workloads are problematic for nurses. They also suggest that workload is not amenable to simple quantitative measures: its significance lies also in its links with accountability, the subordinate status of nurses, their limited control over aspects of their work; the interconnected elements of the work we have portrayed here. A more thorough and subtle appreciation of what nurses actually do would help to document their changing conditions of work — one step in understanding links between work, stress and health.

REFERENCES

Calhoun, G. L. (1980). Hospitals are high stress employers. *Hospitals 54*: 171-172, 175-176.

Campbell, M. (1988). The structure of stress in nurses' work. In Singh Bolaria, B. and Dickinson, H.D. (Eds.) *Sociology of Health Care in Canada* (393-405) Toronto: Harcourt Brace Jovanovich.

Campbell, M.L. (1987). Productivity in Canadian nursing: Administering cuts. In Coburn, D., D'Arcy, C., Torrance, G., New, P. (Eds.) *Health and Canadian Society: Sociological Perspectives*. (463-475) Toronto: Fitzhenry and Whiteside.

Clever, L.H. and Omenn, G.S. (1988). Hazards for health care workers. *American Review of Public Health 9*: 273-303.

Day, E.B. (1987) A 20th century witch hunt: A feminist critique of the Grange Royal Commission into deaths at the Hospital for Sick Children. *Studies in Political Economy 24:* 13-39.

Gray-Toft, P. and Anderson, J. G. (1981). Stress among hospital nursing staff: Its causes and effects. *Social Science and Medicine 15A:* 639-647.

Haché-Faulkner, N. and Mackay, R. C. (1985). Stress in the workplace: public health and hospital nurses. *Canadian Nurse 81:* 40-42.

Kahn, J. Y. and Westley, W. A. (1984). *The Working Environment in Canadian Hospitals: Constraints and Opportunities*. Labour Canada, Ottawa.

Klitzman, S. and Stellman, J.M. (1986). *The Health and Well-being of OPSEU Members Employed in Six Institutions in the Province of Ontario*. New York: Klitzman and Stellman.

Leatt, P. and Schneck, R. (1985). Sources and management of organizational stress in nursing sub-units in Canada. *Organization Studies 6:* 55-79.

Martin, T. (1984). Role stress and inability to leave as predictors of mental health. *Human Relations 37:* 969-983.

Ontario, Ministry of Health (1983). *Annual Report*. Queen's Printer, Toronto.

Parasuraman, S. and Hansen, D. (1987). Coping with work stressors in nursing: Effects of adaptive versus maladaptive strategies. *Work and Occupations 14:* 88-105.

Strauss, A., Fagerhaugh, S., Suczek, B. and Wiener, C. (1985). *Social Organization of Medical Work*. Chicago: University of Chicago Press.

Walters, V. and Denton, M. (forthcoming). Workers' knowledge of their legal rights and resistance to hazardous work. *Relations Industrielles*.

Walters, V. and Haines, T. (1988a). Workers' perceptions, knowledge and responses regarding occupational health and safety: A report on a Canadian study. *Social Science and Medicine 27*(11):1189-1196.

Walters, V. and Haines, T. (1988b) Workers' use and knowledge of the 'internal responsibility system': Limits to participation in occupational health and safety. *Canadian Public Policy XIV*(4):411-423.

The research was funded by the Social Sciences and Humanities Research Council and by supplementary grants from the Labour Studies Programme and the Arts Research Board of McMaster University. The first author was principal investigator and the second author co-investigator. Thanks are due to Brenda Nussey of Social Data Research for her administrative work and considerable help with the quantitative analysis. We are also grateful to Jack Haas and Dorothy Pawluch for their comments on a draft of this paper. The senior author also wishes to thank the Centre for Socio-Legal Studies, Wolfson College, University of Oxford, where the data in this paper were analysed during a research leave.

RÉSUMÉ

La charge de travail et le stress professionnel des infirmières

Cette étude fait état du stress professionnel vécu par les infirmiers(ères). On apprend qu'une lourde charge de travail est la principale source de stress et qu'elle est souvent associée à des contraintes financières. L'analyse qualitative des données indique que la charge de travail reflète plus qu'un simple surcroît de travail. Une lourde charge peut également porter atteinte à la qualité du travail. Son influence est d'autant plus grande que les infirmiers(ères) sont tenu(e)s responsables de leurs erreurs et omissions, qu'ils(elles) ne jouissent que d'une autonomie limitée et qu'ils(elles) ne sont pas en mesure d'organiser leur travail selon leur propre perception des éléments essentiels. En conclusion, les auteurs soulignent la nécessité d'élargir la notion de charge de travail, d'approfondir les effets de la politique en matière de soins de santé et de mieux documenter les diverses composantes du travail des infirmiers(ères).

A SURVEY OF FAMILY NURSING EDUCATION IN CANADIAN UNIVERSITIES

Lorraine Wright and Janice Bell

In this study, the content and implementation of family nursing education in Canadian university curricula was investigated. A national survey was conducted for the purpose of providing an accurate description of family nursing content, and of teaching methods related to family assessment, intervention and interviewing skills. In addition, information about student evaluation methods and the clinical experiences involving families was obtained. The findings of this study identify current trends in family nursing education and will be of interest to nurse clinicians and educators. These results provide direction to nursing educators who wish to strengthen the family nursing content in their programs.

Literature Review

The discipline of nursing has always recognized the importance of the family in the promotion and maintenance of health. However, it has been surmised that family involvement ranges from non-existent to focusing on the family as the unit of care (Wright & Leahey, in press; Wright, Watson, & Bell, in press). Recently there has been an active trend to reclaim and rediscover the territory of family involvement in nursing practice. This is evident in the use of terms like: "family-centered nursing" (Logan & Dawkins, 1986), "family nursing" (Friedman, 1986; Gilliss, Highley, Roberts, & Martinson, 1989; Leahey & Wright, 1987a, 1987b; Wright & Leahey, 1987), and "family interviewing skills" (Wright & Leahey, 1984). Prior to this decade, nursing curricula have paid relatively little attention to the family as an object of systematic study.

Today, the study of families in baccalaureate and graduate nursing programs has grown significantly. However, little is known about the extent of family nursing content in Canadian university curricula. Even less is

Dr. Lorraine M. Wright, R.N., Ph.D. is Professor in the Faculty of Nursing, and Director, Family Nursing Unit. Janice M. Bell, R.N., Ph.D. is Associate Professor in the Faculty of Nursing, and Research Coordinator, Family Nursing Unit; both are at the University of Calgary, Alberta.

The Canadian Journal of Nursing Research *Fall 1989, 21(3), 59-74*

known about student clinical practice that focuses on the family, or about the strategies used to teach family nursing content. A study recently conducted in the United States by Hanson and Bozett (1988), examined these questions in a random sample of 140 undergraduate and graduate nursing programs. Information about family content in Canadian university nursing programs has not previously been collected. Only one Canadian study has examined the extent and quality of teaching family assessment and counselling in medical schools (Sawa & Pablo, 1981).

Purpose of the Study

The purpose of this study was to identify family nursing content, and related teaching strategies and clinical experiences, in Canadian university schools of nursing. Specific research questions for both undergraduate and graduate programs included:

1. How is the term "family" defined in nursing curricula?
2. Are there terminal objectives that relate to family nursing?
3. Are there specific course titles for courses that have family as the primary focus?
4. What textbooks and journals are used in courses related to family content?
5. What theories, models, or frameworks are used to teach family nursing?
6. What aspects of family structural, developmental and functional assessment are taught?
7. What methods are used to teach family assessment?
8. What family intervention strategies are taught?
9. Are family interviewing skills (vs. general communication skills) taught?
10. What methods are used to teach family interviewing skills?
11. What approach is used when working with families; i.e., family nursing, family systems nursing, or family therapy?
12. What aspects of families in health and illness are taught?
13. How are student skills in working with families evaluated?
14. What are the clinical settings in which family nursing clinical experiences (focus on the individual in the context of the family) are provided?
15. What are the clinical settings in which family systems nursing clinical experiences (focus on the family as the unit of care) are provided?

Method

A descriptive survey design was used with the population of Canadian university schools of nursing (N=27). Each university was invited by letter to participate. The Dean or Director was asked to identify individual faculty

members who were knowledgeable about the family nursing curriculum in the graduate or undergraduate programs. The identified faculty member, or members, were then sent a questionnaire. Telephone interviews were arranged with the faculty member or members after they had reviewed the questionnaire and had gathered information from their colleagues as necessary in order to provide accurate information about their entire programs. A telephone interview was chosen to insure a higher response rate than a mail-out questionnaire, and to increase clarity, accuracy and representativeness of the data collected. The telephone interview took approximately 45 minutes and was conducted by a trained research assistant.

Twenty-six universities chose to participate in the survey (96% response rate). Twenty-three responses were gathered by means of the telephone interview as described above. Three responses were returned by mail because a telephone interview could not be scheduled. Data collection occurred between May and December 1988.

The questionnaire, designed by the investigators specifically for this study, included items related to the broad categories of demographic information, family nursing content in the curriculum and family clinical experiences. Modeled on the instrument used by Hanson and Bozett (1988), several items were refined and new items were included. Content validity was established by a panel of family nursing educators.

Ethical review of this study was conducted by the Ethics Committee of the University of Calgary. Each subject was informed that names of the individual respondents and specific university programs would not be used, and that results would be reported as group data.

Descriptive statistics were used to analyze the data and describe the trends in family nursing content among Canadian university programs.

Results

Demographic data

All 26 university schools of nursing that participated in the study offered some type of undergraduate program ranging from generic only to post-diploma only. Of the 26 university programs, 10 offered a graduate program in nursing. However, only 8 graduate programs offered family related specialties of some type, including: family clinical nurse specialist (n=4); family nurse practitioner (n=1); community health with family focus (n=5); parent-child with family focus (n=2) and family systems nursing (n=1).

Answers to the research questions

The results are reported for each research question:

1. How is the term "family" defined in nursing curricula? The definition of family varied dramatically. Three schools stated there was no "official definition", or that students were exposed to a variety of definitions. One undergraduate program reported that having a specific definition would limit students. Eight undergraduate programs (31%) adopted traditional definitions of family: e.g., "a group of parents and children supported by various and multiple links to support each other and to facilitate the development of its members"; "two or more persons related by marriage, birth, or adoption"; and "a family is a group whose ties exist by birth, marriage, adoption or mutual consent". Fourteen programs (54%) used more non-traditional definitions: e.g., "two or more persons who reside in close proximity and have emotional bonds and share responsibility and commitment to each other"; a family is"a small social system made up of individuals related to each other by reason of social and emotional factors and which persists over time". One program gave students various definitions of family to consider but emphasized that "the family is who the client says it is". This particular program allowed the family to define the family.

2. Are there terminal objectives that relate to family nursing? The majority of undergraduate and graduate programs identified at least one or more terminal objectives that related directly or indirectly to family nursing content in the curriculum. Family nursing was not a primary focus of many objectives; however, the family was included in several terminal objectives where the individual, family or community were the recipients of a particular nursing behaviour.

The predominant themes in undergraduate curriculums were: use of the nursing process when involved with families; competency to assess families utilizing a particular assessment model; competency to interview or communicate with families; and an ability to provide competent nursing care to families throughout the life cycle. Very few programs, at either the undergraduate or graduate level, specifically cited competency in determining or implementing family interventions or facilitating change. Two programs mentioned using research findings in providing care to the family.

3. Are there specific course titles for courses that have family as the primary focus? The undergraduate programs reported a mean of 2.4 specific course titles for courses which had the family as the *primary* focus. A mean of less than one course title was reported by the graduate nursing programs.

4. What textbooks and journals are used in courses related to family content? Each university was asked to identify three textbooks that were used in nursing courses related to the family. The most popular textbook related to family content used in the undergraduate program was Friedman's *Family Nursing: Theory and Assessment* (1986) reported by 18 of the 26 universities, followed by Wright and Leahey's *Nurses and Families: A Guide to Family Assessment and Intervention* (1984) used in 15 programs. A wide variety of other textbooks (n=23) were identified, ranging from community health nursing to maternity nursing texts. No family therapy or family science textbooks were used. In the graduate programs, 5 of the 10 reported using Wright and Leahey (1984), while the remaining texts were varied but unlike the undergraduate programs, included family therapy textbooks as well.

Each university was asked to identify three journals used in courses related to family content. A total of 34 journals were identified for undergraduate courses. *Maternal and Child Nursing* and *Journal of Marriage and the Family* were identified by 5 universities. Frequencies for other journals directly related to family content included *Family Process* (n=2), *Family Relations* (n=3), *Family and Community Health* (n=4) and *Family Systems Medicine* (n=0).

Frequencies for journals used in the 5 graduate programs included: *Journal of Marriage and the Family* (n=3), *Family and Community Health* (n=2), *Advances in Nursing Science* (n=2), *Family Relations* (n=2), *Family Process* (n=2), *Western Journal of Nursing Research* (n=1), *Systemes humains* (French) (n=1), *Birth and the Family Journal* (n=1), *Research in Nursing and Health* (n=1), *Family Issues* (n=1), *Family Systems Medicine* (n=1) and *Therapie familiale* (French) (n=1).

5. What theories, models or frameworks are used to teach family nursing? Roy's adaptation model (50%), Orem's self-care model (65.4%), Neuman's system model (53.8%) were the most frequently used nursing models in the 26 undergraduate programs. Models least mentioned were Johnson (15.4%), Peplau (19.2%) and Rogers (23.1%). Theories related to family content included developmental theory (92.3%), systems theory (96.2%), structural/functional theory (84.6%), social support theory (76.9%) communication theory (88.5%), role theory (80.8%), crisis theory (84.6%) and stress and coping theory (84.6%). It is interesting to note that only 26.9% of the 26 undergraduate programs reported using cybernetics theory, 34.6% used social learning theory, and only 26.9% used symbolic interaction theory.

Seven graduate programs reported using nursing models and other family theories. Of these, 2 programs used Roy, 2 used Orem, 2 used Neumann, 2 used Johnson, 3 used Peplau and 2 used Rogers. Predominant theory related

to family included: developmental theory (71.4%), systems theory (85.7%), structural/functional theory (71.4%) and communication theory (85.7%). Again, it is interesting to note that cybernetic theory, stress and coping theory and crisis theory, were only identified by 2 of the 7 graduate programs (28.6%). One school reported using its own model.

6. What aspects of family structural, developmental and functional assessment are taught? All 26 undergraduate programs reported that family assessment was taught in their curricula. Seventeen assessment frameworks were identified. These included the Calgary Family Assessment Model (n=10), Friedman's assessment framework (n=9), Thibaudeau's assessment framework (n=3), McGill's assessment model (n=2), University of British Columbia's family framework (n=1) and the McMaster Model of Family Functioning (n=1) and many others.

Family structural assessment was taught in 96.2% of the undergraduate programs. Concepts most frequently addressed in structural assessment included nuclear and variant family composition (92.3%), rank order (69.2%), subsystems (92.3%), boundaries (88.5%), culture (88.5%), religion (76.9%), social class or mobility (76.9%), environment (92.3%) and extended family (88.5%).

Family functional assessment was also frequently taught in undergraduate programs. Most of the dimensions of functional assessment (i.e., instrumental functioning, emotional communication, verbal communication, roles, etc.) were taught by 24 of the 26 undergraduate programs (92.3%). The exception was circular communication, which was only reported by 18 of the 26 programs (69.2%). The dimensions of control (76.9%). alliances and coalitions (80.8%) and family beliefs (80.8%) were also reported less frequently.

Developmental assessment was taught in 25 of the 26 undergraduate programs (96.2%). Twenty-four programs (92.3%) included stages of family development and 21 (80.8%) taught about attachments or bonding related to family development.

Family assessment tools used most frequently in undergraduate programs were the genogram and ecomap. Least frequently identified were scales such as Family Apgar, and other instruments related to social support, coping and parenting.

Data from the graduate programs found that family assessment models were taught by 6 of 10 programs. It appeared that unless a graduate program had a family-related specialty, assessment of the family was not taught. A total of 8 family assessment models were identified. These included the Cal-

gary Family Assessment Model used by 3 programs, UBC's Family Framework used by 1 program, the McMaster Model of Family Functioning used by 1 program and the McGill assessment framework used by 1 program.

Aspects of structural family assessment addressed by 6 of the 10 graduate programs were varied. While the concepts of nuclear and variant composition, subsystems, boundaries, environment and extended family were addressed in 5 programs, only 2 programs reported teaching about rank order.

Six graduate programs reported that functional assessment was taught. All of the dimensions, including circular communication, problem solving, beliefs, alliances and coalitions, etc. were identified by 5 of the 6 programs.

It is interesting to note that while only 6 of the 10 graduate programs reportedly taught family assessment, 7 graduate programs reported that family developmental assessment was included in their curriculum. This included both the stages of family development and attachment or bonding.

Family assessment tools used in the graduate programs were similar to those identified in the undergraduate programs. The family genogram and ecomap were most frequently identified. Family Apgar, the Family Adaptability and Cohesion Evaluation Scale (FACES) and a family coping scale (FCOPES) were least frequently used.

7. What methods are used to teach family assessment? Teaching methods used in the 26 undergraduate nursing programs were ranked according to frequency. Family assessment was taught most frequently by lecture (96.2%), followed by seminar (84.6%), videotape demonstration (57.5%), live interview demonstration (46.2%), role play (46.2%) and audiotape demonstration (0%).

Of the 6 graduate programs who reported teaching family assessment, 6 (100%) used seminar, 4 (66.7%) used videotape demonstration, 3 (50%) used live interview demonstration, 1 (16.7%) used lecture, 1 (16.7%) used audiotape demonstration and 1 (16.7%) used roleplay.

8. What family intervention strategies are taught? Family intervention strategies were taught by 21 (80.8%) of the 26 undergraduate nursing programs. Specific interventions ranked in order of frequency included: commendation of family and individual strengths (76.9%) educational input (76.9%), validation of affect (65.4%), behavioural tasks (65.4%) and normalization (57.7%). Interventions that were taught by fewer than half of the undergraduate programs included: reframing, systemic reframing, prescription of rituals, prescription of no change and externalizing the symptom.

Six graduate programs reported teaching family intervention strategies. Five of the 6 programs (83%) taught commendation of individual or family strengths, normalization, educational input and validation of affect. Four of the 6 graduate programs (67%) taught reframing and systemic reframing. Three programs (50%) taught behavioural tasks, 2 (33%) taught externalizing the symptom and only 1 (17%) taught prescription of rituals and prescription of no change.

9. Are family interviewing skills vs. general communication skills taught? Twenty-one of the 26 undergraduate programs (80.8%) included specific instruction in family interviewing skills. Only 50% (5 out of 10) of the graduate nursing programs taught family interviewing skills.

10. What methods are used to teach family interviewing skills? Of the 21 undergraduate programs who taught interviewing skills specific to the family, 77.3% used lecture, 54.5% used seminar, 50% used videotape demonstration, 30.8% used live interview demonstration, 30.8% used role play and 11.5% used audiotape demonstration.

Of the 5 graduate programs who taught interviewing skills specific to the family, 3 used videotape demonstration, 3 used live interview demonstration, 2 used role play, 2 use seminar, 1 used lecture and 1 used audiotape demonstration.

11. What approach is used when working with families; i.e., family nursing, family systems nursing or family therapy? Undergraduate nursing programs reported the following ranking: 88.5% (23 out of 26) used a family systems nursing approach, i.e., the focus on the family system as the unit of care; 76.9% also used a family nursing approach with a focus on the individual in the context of the family; and 15.4% used a family therapy approach where the focus is on emotional or behavioural problems.

Six graduate programs reported using a family systems nursing approach; additionally, 4 used a family nursing approach and 2 also used a family therapy approach.

12. What aspects of families in health and illness are taught? This content was addressed by all 26 undergraduate nursing programs. Specific topics reported by the undergraduate programs included healthy families (100%), families with chronic illness (96.2%), family violence (92.3%), families with psycho-social problems (96.2%), families with life-threatening illness (88.5%), families with developmental problems (88.5%) and interaction between family functioning and illness (84.6%).

Six graduate programs taught content related to families in health and illness. All 6 included content about families with chronic illness, life-

threatening illness, psychosocial problems, developmental problems and interaction between family functioning and illness. Five of the 6 graduate programs taught about healthy families and family violence.

13. How are student skills in working with families evaluated? All 26 undergraduate programs evaluate student skills. Case consultation is the evaluation method used by 80.8% of the programs; process recording is used by 76.9%; live clinical supervision is used by 65.4%; group supervision is used by 57.7%; audiotape supervision is used by 34.6%; and videotape supervision is used by 23.1%.

The following methods of evaluation were used by graduate programs to evaluate student work done with families: 4 programs used case consultation and group supervision, 3 used videotape and live supervision and 2 used process recording and audiotape.

14. What are the clinical settings in which family nursing clinical experiences (focus on the individual in the context of the family) are provided? The undergraduate programs reported a predominantly moderate to high emphasis on family nursing in the following clinical settings: labour and delivery, pediatrics and community health. Family nursing was reported to be least emphasized in critical care and outpatient programs. Settings such as newborn nursery, psychiatry, rehabilitation and long-term care fell somewhere in the low to moderate range of providing family nursing clinical experiences for the student.

Six graduate programs identified that a family nursing focus was provided for their students. Labour and delivery, pediatrics, community health, medical-surgical and psychiatry settings were the clinical areas reported to offer the student a strongly moderate to high emphasis on family nursing. Critical care, outpatient and school nursing were the areas in which family nursing received low to moderate emphasis in graduate clinical experiences.

15. What are the clinical settings in which family systems nursing clinical experiences (focus on the family as the unit of care) are provided? Few differences were found in the clinical settings used for a family systems nursing emphasis, as compared with the settings used for family nursing (reported above) in both undergraduate and graduate programs.

Twenty-two of the 26 undergraduate programs (84.6%) reported providing family systems nursing clinical experiences where the family was the unit of care. Again pediatrics, labour and delivery and community health were the settings which provided a moderate to strong emphasis in family systems nursing with medical-surgical, critical care, psychiatric, rehabilitation and outpatient areas receiving low to moderate emphasis.

Similarly, 6 of the graduate programs reported providing family systems nursing clinical experiences. Pediatrics, psychiatry, community health and long term care settings provided a strong emphasis in family systems nursing, with labour and delivery, newborn and outpatient areas providing a low to moderate emphasis on the family as the unit of care.

Discussion

The results will first be discussed for undergraduate programs followed by graduate programs.

Undergraduate programs

Conceptualization of Family. A trend in the definition of "family" is towards more non-traditional conceptualizations. This trend is both encouraging and in accordance with the present existence in Canadian society of many variant family types and structures. These definitions would also seem to indicate an acceptance by university nurse educators of non-traditional family types. No doubt this provides excellent modelling for nursing students.

In our estimation, the most advanced notion of family constellation was, "The family is who the client says it is". This has implications for who the nurse will interview and assess. Allowing families to declare their family constellation would be particularly useful with gay and elderly families.

Terminal objectives related to family nursing in undergraduate programs are, in our estimation, indicative of the present conceptual development of nursing of families in undergraduate programs. The primary emphasis is on assessment, with little or no emphasis on understanding the change process, facilitating change or being able to design or implement interventions that would create a context for change. We believe the lack of focus on interventions to be a direct reflection of the failure by nurse educators to also be strong family clinicians. Therefore, educators in family nursing tend to be more competent and comfortable teaching about assessment. However, we predict that there will be a dramatic shift in this emphasis over the next five to ten years. As more nurse educators also become strong family clinicians, there will be greater focus on developing and testing family nursing interventions.

Another revealing aspect of how families and family nursing care is conceptualized is by the identification of resource books and journals. Two resource family nursing textbooks (i.e. *Family Nursing: Theory and Assessment* and *Nurses and Families: A Guide to Family Assessment and Intervention*) were identified by many of the undergraduate programs. Therefore, there does appear to be some common adoption of family content. However,

the fact that 23 other textbooks were also identified (some of these only tangentially related to family nursing) points to the tremendous diversity in imparting family theory and family nursing knowledge to undergraduate students. The identification of journals related to family content was the most telling. Of the thirty-four journals identified for undergraduate courses, only a handful of programs utilized *specific* family journals such as *Family Process*, *Family Relations* or *Family Systems Medicine*. In our opinion, this demonstrates the lack of familiarity with family journals among nursing educators plus the tremendous need for a Journal of Family Nursing. At present, publications in nursing journals relating to the family are located haphazardly throughout many journals. A Journal of Family Nursing would allow nurse educators, clinicians, researchers and theorists to have a common forum to disseminate knowledge about families and family nursing. However, we hope that nurses would not limit themselves to only a family nursing journal, but would be less incestuous and expose themselves to interdisciplinary journals related to the family (e.g. *Family Relations* or *Family Systems Medicine*).

Nurse educators teaching conceptual models, theories and frameworks at the undergraduate level are still caught in the dilemma of using nursing theories that never were intended to be utilized for the nursing care of families (e.g. Roy, Orem). In recent years efforts have been made to modify these frameworks (e.g. Roy) to include the family. This effort has not proved to be totally satisfactory. We would rather see an integration or "marriage" between the some of the more established nursing theories and other mid-range theories (e.g. systems theory, communication theory). The ideal would be development of a new paradigm for nursing that would not focus on the numbers of persons being cared for (i.e. individual, family, community) but rather, would focus on responses to health problems from a cybernetic/systemic viewpoint. Although systems theory seems to be making its way into undergraduate family content, cybernetic theory has not. The omission of cybernetic theory prevents the understanding of the reciprocity between illness and family functioning.

Family assessment content and methods of teaching. It was very rewarding to discover that all 26 undergraduate programs reported that family assessment was taught in their curricula. Within family assessment, there were high ratings for the major dimensions of family assessment (structural, developmental and functional). We attribute this, in large part, to the adoption of the two family nursing textbooks, which have strong family assessment sections. Only the variable of circular communication within functional assessment was low; this is not surprising because cybernetic theory is not taught within many schools.

Teaching methods of family assessment again reflect the expertise of nurse educators. The most common method was by lecture and seminar, with only

half of the programs reporting use of videotape demonstration or live interview demonstration. Role play was used by less than half of the programs but, in our experience and from the literature, skills practised in role-playing are not generally transferable. Therefore, if the important skills of family assessment are to be effectively taught, students must be given the opportunity to observe nursing experts conducting family interviews.

Family intervention content and methods of teaching. The terminal objectives in undergraduate programs did not reflect a specific focus on interventions. However, when specifically questioned about family nursing intervention strategies, 21 of 26 undergraduate programs did identify specific interventions that were taught. These were of an appropriate beginning level, such as educational input. However, when questioned about the methods used to teach family interviewing skills, only 50% of the undergraduate programs utilized videotape demonstration; even less (30.8%) used live interview demonstration. In other words, there is a dearth of demonstration of family assessment, family intervention and family interviewing skills for undergraduate students. This shortage of clinical demonstration results in minimal internalization by undergraduate students of the importance of family involvement in nursing care. Increased family nursing practice by nurse educators will be the most effective and efficient way to ensure the nursing care of families.

Evaluation of family nursing clinical skills. Family nursing content is being well incorporated in undergraduate programs. This is shown by the fact that all 26 undergraduate programs evaluate family nursing clinical skills. However, the methods for evaluation do not provide accurate knowledge of the student's skill development in family nursing. The predominant methods, case consultation and process recording, do not give direct observational data to nurse educators. If nurse educators and clinicians are to be truly confident of the skill development of their undergraduate students, they must use live clinical or videotape supervision as the principal methods of evaluation. At the present moment, opportunities for observation seem to be limited by technical or logistic problems. But, we believe that, unless nurse educators are fully committed to providing competent clinical or videotape supervision, these problems will continue to be used as the rationalization for not furnishing this necessary type of observation.

Approaches to working with families. Although 23 of 26 undergraduate programs reported a family systems nursing approach, (i.e., the family as the unit of care), we did not find this consistent with other descriptions of family nursing content and teaching methods. Perhaps the distinction between family nursing and family systems nursing was not clearly understood by the respondents. There are significant gaps in many programs. For example, cybernetic theory is not frequently taught; this is crucial for understanding

the interactional phenomena of family systems nursing. Too little emphasis is put on actual demonstration or observation. However, there is a positive side to this deficit because we do not recommend the teaching of a family systems approach to undergraduate students. We believe that focusing on the family unit is beyond the level of undergraduate theoretical and clinical competence. Instead, undergraduate students should focus on family nursing, i.e., where the individual is viewed in the context of the family.

Clinical settings for family nursing and family systems nursing experience. The results for this section demonstrate that the family is particularly important in the labour and delivery, pediatric and community health clinical settings. However, the opportunities for undergraduate students to work with the family in critical care, medical-surgical, psychiatric, rehabilitation and outpatient settings are not taken advantage of.

Graduate programs

Conceptualization of family. Although eight programs offer a type of family or family-related specialty, terminal objectives related to family were almost non-existent; less than one course per program has the family as a primary focus. Further evidence of the inconsistency and confusion about family content was observed in the use of resource materials. While 5 graduate programs reported using *Nurses and Families: A guide to family assessment and intervention* (1984), a wide variety of other textbooks was identified. As in the undergraduate program results, a shortage of family journals was noted with less than half the programs using them. Even though there are graduate programs that report having a family or family-related specialty, we did not sense any organized or systematic approach to imparting family and family nursing knowledge at the graduate level in Canadian university schools of nursing.

Family assessment content and methods of teaching. Of concern is the apparent lack of family content in 4 graduate nursing programs in Canada. In only 6 of the 10 graduate programs, family assessment is well integrated with all dimensions of structural, developmental and functional assessment taught. Even circular communication was apparently taught by these graduate programs, despite the fact that cybernetic theory was reportedly taught by only 2 of the graduate programs. Four of the 6 programs (66.7%) used videotape demonstration and 50% used live interview demonstration to teach assessment skills. Content related to families with health problems was also well developed.

Family intervention content and methods of teaching. Again, 6 out of 10 graduate programs reported teaching family intervention: most of these teach beginning level intervention skills such as commendation, educational input,

etc. Advanced family intervention skills are not frequently taught at the graduate level. This is also typical of the nursing literature: knowledge from the disciplines of family science and family therapy apparently is not being used by nursing.

Family interviewing skills and methods of teaching. While 5 out of 10 graduate nursing programs in Canada teach family interviewing skills, only 3 programs use live interview demonstration or videotape demonstration to teach family interviewing skills. This, again, highlights the need for nurse educators to be clinically competent, in order to provide quality learning experiences for their students.

Approaches to working with families. Six graduate programs report a family systems nursing approach. However, advanced knowledge about interaction and reciprocity is not reflected in the level of family intervention and interviewing skills taught, nor in the teaching methods used. Two programs reported teaching a family therapy approach as well, suggesting that nursing is ready to borrow knowledge from other disciplines such as family science and family therapy.

Clinical settings for family nursing and family systems nursing experience. Similar to the undergraduate program results, the pediatric, psychiatric and community health settings continue to provide graduate students with the strongest clinical experiences in family nursing. More opportunities should be created for graduate students to work with families in the critical care, outpatient and medical-surgical settings.

Conclusion

Family nursing education in Canadian schools of nursing is flourishing in undergraduate programs, and is particularly strong in the content areas of family assessment and families and illness. However, serious deficits in the teaching of family intervention and interviewing skills exist, both in terms of content and instructional method. These areas are not well developed in the nursing literature and knowledge from other disciplines is not being incorporated: for example, Tomm's (1987a, 1987b, 1988) concept of interventive interviewing in family therapy is one example of useful techniques from other disciplines that nurse could apply.

Of greatest concern is the state of family nursing education in the small number of graduate nursing programs in Canada. Family content, with the possible exception of family assessment and families and illness, is generally not well developed or effectively taught. Advanced level practice is not evident in either the types of intervention taught or in books and periodicals used. Opportunities for graduate clinical experiences appear to be limited to

the traditional family-oriented settings. We must focus much more attention on providing all graduate nursing students, across all specialty areas, with basic family assessment and intervention skills. We need educators who can model advanced practice skills to students specializing in family nursing, providing them with quality live and videotape supervision. We need more research on the acquisition and retention of family nursing skills to evaluate and refine our teaching strategies more thoroughly. We need to move beyond descriptive studies which dominate the nursing literature, to more intervention studies that would examine the effectiveness of various family nursing interventions upon the whole family unit. We must develop and refine family intervention to move the idea of "advance practice" at the graduate level forward.

REFERENCES

Friedman, M. (1986). *Family nursing: Theory and assessment* (2nd ed.). Norwalk, CT: Appleton-Century-Crofts.

Gilliss, C.L., Highley, B.L., Roberts, B.M., & Martinson, I.M. (1989). *Toward a science of family nursing*. Menlo Park, California: Addison-Wesley.

Hanson, S.M.H., & Bozett, F.W. (1988). *Family nursing education in U.S. schools of nursing*. Paper presented at the International Family Nursing Conference, Calgary, Alberta.

Leahey, M., & Wright, L.M. (Eds.). (1987a). *Families and life-threatening illness*. Springhouse, PA: Springhouse.

Leahey, M., & Wright, L.M. (Eds.). (1987b). *Families & psychosocial problems*. Springhouse, PA: Springhouse Corp.

Logan, B.B., & Dawkins, C.E. (1986). *Family-centered nursing in the community*. Menlo Park, California: Addison-Wesley.

Sawa, R.J., & Pablo, R.Y. (1981). *Teaching family theory and family counselling in the community*. Menlo Park, California: Addison-Wesley.

Tomm, K. (1987a). Interventive interviewing: Part I. Strategizing as a fourth guideline for the therapist. *Family Process, 26*, 3-13.

Tomm, K. (1987b). Interventive interviewing: Part II. Reflexive questioning as a means to enable self-healing. *Family Process, 26*, 167-183.

Tomm, K. (1988). Interventive interviewing: Part III. Intending to ask lineal, circular, strategic, or reflexive questions. *Family Process, 27*, 1-15.

Wright, L.M., & Leahey, M. (Eds.). (1987). *Families & chronic illness*. Springhouse, PA: Springhouse Corp.

Wright, L.M., & Leahey, M. (1984). *Nurses and families: A guide to family assessment and intervention*. Philadelphia: F.A. Davis.

Wright, L.M., & Leahey, M. (1990). Trends in nursing of families. *Journal of Advanced Nursing 17*, 1-15.

Wright, L.M., Watson, W.L., & Bell, J.M. (in press). The Family Nursing Unit: A unique integration of research, education and clinical practice. In J.M. Bell, W.L. Watson, & L.M. Wright (Eds.). *The cutting edge of family nursing*. Calgary, Alberta: Family Nursing Unit Publications.

RÉSUMÉ

Soins infirmiers à la famille: sondage sur les cours offerts à ce chapitre dans les universités canadiennes

Un sondage a été réalisé pour déterminer l'importance des cours de soins infirmiers à la famille dans les programmes des universités canadiennes. Toutes les facultés ou écoles de sciences infirmières du Canada ont été invitées à y participer. On a recueilli des données sur 26 programmes de premier cycle et sur 10 programmes de deuxième cycle (taux de réponse = 96 %). Les questions posées portaient en particulier sur la théorie des soins infirmiers à la famille, sur l'évaluation et sur les aptitudes en matière d'intervention et d'entrevue. On s'est également penché sur les méthodes d'évaluation et sur les types d'expériences cliniques mettant les familles en jeu. Ce sondage a révélé que les cours de soins infirmiers à la famille sont bien intégrés dans les programmes de premier cycle, mais moins bien dans les programmes de deuxième cycle. Les programmes de premier cycle s'évertuent vraiment à enseigner l'évaluation familiale aux étudiants. Les techniques d'intervention sont moins mises en relief au niveau des deux cycles. L'étude révèle qu'il existe un besoin pressant de manuels et de revues spécialisés portant sur les soins infirmiers à la famille ainsi que de démonstrations et d'un encadrement professionnel en milieu clinique soit en direct soit par le biais d'enregistrements magnétoscopiques. Il importe également d'établir une distinction plus nette entre les soins infirmiers à la famille, les soins infirmiers au système familial et la thérapie familiale. Par ailleurs, il faut uniformiser la théorie et les aptitudes cliniques requises pour chaque démarche, depuis les notions de base jusqu'aux interventions spécialisées.

Supported by a grant from the Social Sciences and Humanities Research Council of Canada.

NATIONAL NURSING RESEARCH CONFERENCE
Innovation and Nursing Research

Canadian Association of University Schools of Nursing
University of Victoria Learned Societies Conference

June 1-3, 1990

Fee: $155.00 before April 1, 1990; $190.00 after April 1, 1990

Contact: School of Nursing, University of Victoria
Box 1700, Victoria, B.C., V8W 2Y2
Tel: (604) 721-7955 FAX: (604) 721 8653

SECOND INTERNATIONAL SYMPOSIUM ON PEDIATRIC PAIN

Montreal, Quebec
April 23-27, 1991

For further information:
Pain Secretariat
3450 University Street, Montreal, Quebec, H3A 2A7
Tel: (514) 398 3770 Fax: (514) 398 4854
Telex: 05-268510 E-Mail:PAIN@CO.LAN.MCGILL.CA

INFORMATION FOR AUTHORS

The Canadian Journal of Nursing Research welcomes research and scholarly manuscripts of relevance to nursing and health care. Please send manuscripts to The Editor, *The Canadian Journal of Nursing Research*, School of Nursing, McGill University, 3506 University Street, Montreal, QC, H3A 2A7, Canada.

Procedure: Please submit three double-spaced copies of the manuscript on 216mm x 279mm paper, using generous margins. Include a covering letter giving the name, address, present affiliation of the author(s). It is understood that articles submitted for consideration have not been simultaneously submitted to any other publication. Please include with your article a statement of ownership and assignment of copyright in the form as follows: "I hereby declare that I am the sole proprietor of all rights to my original article entitled ' ' and that I assign all rights to copyright to the School of Nursing, McGill University, for publication in *The Canadian Journal of Nursing Research/La revue canadienne de recherche en sciences infirmières*. Date _____, Signature _____."

Style and Format: Acceptable length of a manuscript is between 10 and 15 pages. The article may be written in English or French, and must be accompanied by a 100-200 word abstract (if possible, in the other language). Please submit original diagrams, drawn in India ink and camera-ready. Prospective authors are asked to place references to their own work on a separate sheet and to follow the style and content requirements detailed in the Publication Manual of the American Psychological Association (3rd. ed.), Washington, DC: APA, 1983.

Manuscript Review: Manuscripts submitted to the journal are assessed anonymously by two members of a Review Board, using the following criteria:

Assessing content
Internal validity - relatedness: Is the problem the paper deals with identified? Is the design of the research or the structure of the essay appropriate to the question asked? Are the statistical, research and logical methods appropriate? Can the findings be justified by the data presented? Are the implications based on the findings?
External validity - relevance, accountability: Is the question worth asking? Is the problem of concern? Are there problems of confidentiality or ethics? Are the findings of the research or the conclusions of the essay significant? Can the findings or the conclusions be applied in other situations? Does the article contribute to knowledge in nursing? In what way?

Assessing presentation
Are the ideas developed logically? Are they expressed clearly? Is the length appropriate to the subject? Does the number of references or tables exceed what is needed?

Publication Information: On receipt of the original manuscript, the author is advised that the editorial board's response will be forwarded within ten weeks. When a manuscript is returned to the author for revision, three copies of the revised manuscript (dated and marked 'revised') should be returned to the editor within four weeks. The complete procedure of review, revision, copy editing, typesetting, proofreading and printing may result in a six to eight month lapse between submission and publication.

RENSEIGNEMENTS A L'INTENTION DES AUTEURS

La revue canadienne de recherche en sciences infirmières accueille avec plaisir des articles de recherche ayant trait aux sciences infirmières et aux soins de la santé. Veuillez adresser vos manuscrits à la rédactrice en chef, *La revue canadienne de recherche en sciences infirmières*, Ecole des sciences infirmières, Université McGill, 3506 rue University, Montréal, QC, H3A 2A7.

Modalités: Veuillez envoyer trois exemplaires de votre article dactylographié à double interligne sur des feuilles de papier de 216mm x 279mm en respectant des marges généreuses, accompagné d'une lettre qui indiquera le nom, l'adresse et l'affiliation de l'auteur ou des auteurs. Il est entendu que les articles soumis n'ont pas été simultanément présentés à d'autres revues. Veuillez inclure avec votre article une déclaration de propriété et de cession de droit d'auteur conformément à la formule suivante: "Je déclare par la présente que je suis le seul propriétaire de tous droits relatifs à mon article intitulé ' ' et je cède mon droit d'auteur à l'École des sciences infirmières de l'Université McGill, pour fins de publication dans *The Canadian Journal of Nursing Research/La revue canadienne de recherche en sciences infirmières*. Date _____, Signature _____."

Style de présentation: La longueur acceptable d'un article doit osciller entre 10 et 15 pages. Les articles peuvent être rédigés soit en anglais, soit en français et ils doivent être accompagnés d'un résumé de 100 à 200 mots (si possible, dans l'autre langue). Veuillez remettre l'original des schémas, dessinés à l'encre de Chine et prêts à être photographiés. Les auteurs sont tenus de fournir les références à leurs propres oeuvres sur une feuille séparée et de suivre les consignes énoncées dans le Publication Manual of the American Psychological Association (3rd. ed.), Washington, D.C.: APA, 1983, en ce qui concerne le style et le contenu de leurs articles.

Examen des manuscrits: Les manuscrits présentés à la revue sont évalués de façon anonyme par deux lectrices selon les critères suivants:

Evaluation du fond
Validité interne: Le problème dont traite l'article est-il clairement défini? La forme des recherches ou la structure de l'essai sont-elles appropriées à la question soulevée? les méthodes statistiques, logiques et les modalités de recherche sont-elles appropriées? Les conclusions peuvent-elles être justifiées à l'aide des données présentées? Les implications de l'article sont-elles fondées sur les conclusions?
Validité externe: Le problème soulevé présente-t-il un intérêt véritable? Ce problème est-il d'actualité? Existe-t-il des problèmes de divulgation ou de déontologie? Les conclusions de la recherche ou de l'article sont-elles importantes? Ces conclusions ou résultats peuvent-ils s'appliquer à d'autres situations? Est- ce que l'article contribue à l'avancement du savoir dans le domaine des sciences infirmières? De quelle façon?

Evaluation de la présentation
L'auteur développe-t-il ses idées de manière logique? Les exprime-t-il clairement? La longueur de son article est-elle appropriée au sujet abordé? Est-ce que le nombre de références ou de tableaux dépasse le strict nécessaire?

Renseignements relatifs à la publication: A la réception du manuscrit original, l'auteur est avisé que le Comité de rédaction prendra une décision au sujet de la publication de son article dans les dix semaines. Lorsqu'un manuscrit est renvoyé à son auteur pour qu'il le remanie, trois exemplaires dudit manuscrit remanié (daté et portant l'inscription "revu et corrigé") doivent être renvoyés à la rédactrice en chef dans les quatre semaines. Les modalités complètes de lecture, de remaniement, d'édition, de composition et d'imprimerie expliquent qu'il s'écoule souvent de six à huit mois avant qu'un article soumis soit publié.

McGILL UNIVERSITY
SCHOOL OF NURSING

GRADUATE PROGRAMS IN NURSING

MASTER OF SCIENCE (WITH THESIS)
MASTER OF SCIENCE (APPLIED)

These programs have been designed to prepare clinicians and researchers for the expanding function of nursing within the health care delivery system. Preparation for the teaching of nursing or the management of nursing service is also offered.

Admission requirements

Either a Baccalaureate degree in Nursing comparable to B.Sc.(N) or B.N. from McGill; or a Baccalaureate degree comparable to B.A. or B.Sc. offered at McGill (for those with no nursing preparation).

Length of program

Two years for those with nursing degrees;
Three years for non-nurses.

Language of study: English

Further information from:

Associate Director, School of Nursing
Graduate Programs
3506 University Street
Montreal, QC, H3A 2A7

Enquiries regarding **Ph.D. studies**
should also be made to the
Associate Director, Graduate Programs