

*THE CANADIAN JOURNAL
OF
NURSING RESEARCH*

Winter / Hiver 1992 Vol. 24 No. 4

*REVUE CANADIENNE
DE RECHERCHE
EN SCIENCES INFIRMIÈRES*

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SUBSCRIPTION RATES: Institutions (including hospitals, schools, libraries and agencies): \$48/one year. Individual subscriptions: \$34/one year; \$60/two years. Students \$20/one year. Subscriptions through CAUSN \$26/one year; \$50/two years. Cheques payable to McGill University.

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

BACK ISSUES: Available at \$12/copy or \$48/year. Xerox copies of articles are available at 25¢/page, or a minimum of \$5/article.

ABONNEMENTS: Institutions (ce qui comprend les hôpitaux, les écoles, les bibliothèques et les agences): 48\$ pour une année. Abonnements individuels: 34\$ pour une année; 60\$ pour deux ans. Étudiants: 20\$ pour une année. Les chèques à l'ordre de Université McGill.

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

ANCIENS NUMÉROS: 12\$ le numéro ou 48\$ par année. On peut se procurer les photocopies d'articles pour 25¢ la page ou 5\$ minimum par article.

This issue has been supported by MRC (SR-1) and SSHRC (441-88-0104) grants.
Nous avons reçu les subventions du CRM (SR-1) et du CRSHC (441-88-0104) pour ce numéro.
ISSN 0844-5621

The Canadian Journal of Nursing Research is indexed in:

La Revue canadienne de recherche en sciences infirmières se retrouve dans les Indexes suivants: CINAHL; Health Care Management Studies; Hospital Abstract; International Nursing Index; Nursing Abstract; Point de repère (1988 - present)

Dépot légal - 1er trimestre 1974; Bibliothèque Nationale du Québec
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The Canadian Journal of Nursing Research
Revue canadienne de recherche en sciences infirmières

Volume 24, No. 4

Winter/Hiver, 1992

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CONTENTS - TABLE DES MATIÈRES

- 1 Editorial: Nurses not Heard in the Health Promotion Movement
Les infirmières et infirmiers qu'on n'entend pas dans le mouvement de promotion de la santé
Laurie Gottlieb
- 5 Sources de stress perçues par les soignantes naturelles une étude phénoménologique
Abstract: Sources of stress from the perspective of caregivers: A phenomenological study
G. Gallant
- 19 Longitudinal Panel Analysis of Nursing Registrant Data
Résumé: Analyse d'une étude longitudinale sur les personnes inscrites en sciences infirmières
Robert D. Hiscott and Michael T. Sharratt
- 29 Psychosocial Adjustment in Post-menopausal Women
Résumé: Adaptation psychosociale des femmes post-ménopausiques
Jacqueline Roberts, Lesley F. Chambers, Jennifer Blake, and Colin Webber
- 47 A Profile of Part-time Faculty in Canadian University Nursing Programs
Résumé: Portrait du professeur de faculté enseignant à mi-temps dans les programmes en sciences infirmières des universités canadienne
Doreen Westera
- 61 The Nursing Performance of Preceptored and Non-preceptored Baccalaureate Nursing Students
Résumé: Les résultats des étudiants en sciences infirmières qui préparent un bac en suivant une formation individuelle ou en groupe.
Olive Yonge and Lorraine Trojan
-
- 78 Volume 24 Cumulative Index
81 Information for authors
82 Renseignements à l'intention des auteurs

NURSES NOT HEARD IN THE HEALTH PROMOTION MOVEMENT

During a recent trip to London, England, I found myself in my favourite bookstore. While browsing, I came across Robin Bunton and Gordon Macdonald's (1992) recently edited book on health promotion. The authors examine the specialities that contribute to the knowledge base for health promotion: the primary feeder disciplines (e.g., psychology, sociology, education, and epidemiology) and more recently, the secondary feeder disciplines (e.g., social policy, marketing, economics). It was interesting to note that nursing was not included in either list. Given that the nursing discipline has long been concerned with health promotion and identifies it as one of its primary mandates, I wondered why this contribution had not been acknowledged.

Bunton and Macdonald's book was a British publication; it would have been easy to dismiss the oversight as reflecting the state of British nursing. I knew this was not the case. At recent forums dealing with health promotion in Canada, I had heard from experts in other disciplines that nursing is considered the "new kid on the block" in the health promotion movement. Although it has indisputably played a major role in shaping national and provincial health care thinking and policy, it would appear that we have had less of an impact on our colleagues from other specialities. I began to wonder why we as a discipline have failed to make our voices heard. Why have we failed to contribute our unique perspectives and knowledge to the development of health promotion?

When one listens to the concepts and language of the health promotion movement, it becomes evident that the nursing discipline has a different conceptualization of health. For the most part, the movement has been concerned with lifestyle and behaviours, such as smoking, exercise, and diet, that affect health status. Although these areas have long been of concern to nursing, it has adopted a broader view of health. The nursing profession views health as encompassing the individual's and family's responses to and ways of coping with day-to-day occurrences, including such stressful events as illness. Thus, as a discipline we are concerned with identifying, describing, and understanding these responses as well as the biological, personal, situational, environmental, and cultural forces that shape these responses. It is through such knowledge that meaningful ways of working with patients and clients can be developed and empirically tested. Although our research studies reflect that this is one of our approaches to health, we need to articulate more clearly how we define health — what we share with other disciplines and what is uniquely ours. We need to communicate these concepts in our research models, frameworks, and studies.

A second way to make ourselves heard is by choosing words carefully. At a recent health promotion conference sponsored by the McGill School of Nursing a colleague of mine, Dr. Patricia Vertinsky, Associate Dean of Education at the University of British Columbia, commented that we are at times imprecise in our use of health promotion language. Although we have adopted the terms, we may use them in a different way. For example, we use the word "intervention" to mean working with clients in a collaborative way. However, in the health promotion movement "intervention" implies doing *to* rather than *with* a client, and goes against its basic tenets.

Language is particularly important for describing and evaluating our approaches to health promotion. To convey the uniqueness of nursing approaches, we need to pay attention to how we describe our activities. We need to use health promotion terminology in the same way that other disciplines do. We should only invent new terms when the existing ones are inadequate. We need to clearly articulate in our research models and studies how we define health, what mechanisms affect health behaviours, and how we work with clients for desired change. It is only when we achieve this clarity in our publications that we will begin to listen to ourselves, and other disciplines will then begin to hear us.

Laurie Gottlieb
Editor

Bunton, R. & Macdonald G. (1992). *Health Promotion*. New York: Routledge.

LES INFIRMIÈRES ET INFIRMIERS QU'ON N'ENTEND PAS DANS LE MOUVEMENT DE PROMOTION DE LA SANTÉ

Au cours d'un récent voyage à Londres en Angleterre, je me suis retrouvée dans ma librairie préférée. Tandis que je feuilletais les livres, j'ai tombé sur un ouvrage récemment publié sur la promotion de la santé, écrit par Robin Bunton et Gordon Macdonald. Les auteurs passent en revue les spécialités qui font partie des connaissances élémentaires pour la promotion de la santé : les disciplines préparatoires principales (la psychologie, la sociologie, la pédagogie et l'épidémiologie) et, plus récentes, les disciplines préparatoires secondaires (les politiques sociales, le marketing et l'économie politique). Il était intéressant de remarquer que les sciences infirmières n'apparaissaient sur aucune des deux listes. Sachant que cette discipline s'occupe depuis longtemps de la promotion de la santé et qu'elle la considère comme l'un de ses principaux mandats, je me suis demandée pourquoi cette contribution n'avait pas été mentionnée.

Le livre de Bunton et Macdonald étant une publication britannique, il aurait été facile de ne pas tenir compte de cette omission, en considérant qu'elle reflétait l'état des sciences infirmières en Grande-Bretagne. Je savais que ce n'était pas le cas. Lors de colloques récents sur la promotion de la santé au Canada, j'avais entendu des experts d'autres disciplines dire que les sciences infirmières étaient comme les «new kids on the block» dans le mouvement de la promotion de la santé. Bien que celles-ci aient indiscutablement joué un grand rôle dans la maturation et l'élaboration d'une politique pour les soins de santé sur le plan national et provincial, il semblerait que nous ayons produit un effet moins important sur nos collègues que les autres spécialités. Je me suis demandée : «pourquoi en tant que discipline n'avons-nous pu faire entendre notre voix ? Pourquoi, avec nos perspectives et nos connaissances uniques, n'avons-nous pas réussi à participer au développement de la promotion de la santé ?»

Lorsqu'on écoute les conceptions et le discours du mouvement de promotion de la santé, il est évident que les sciences infirmières ont une conceptualisation de la santé différente. Le mouvement s'est intéressé, en grande partie, aux différents modes de vie et comportements, comme le fait de fumer, la gymnastique et le régime alimentaire qui influencent sur l'état de santé. Bien que ces domaines intéressent depuis longtemps les sciences infirmières, celles-ci ont adopté une vue plus large sur la santé. Les professionnels considèrent que le concept de santé englobe les moyens qu'emploient l'individu et la famille pour réagir et faire face aux événements quotidiens, y compris des événements qui provoquent des tensions comme la maladie. En tant que discipline donc, nous

voulons identifier, décrire et comprendre ces réactions autant que les causes biologiques, personnelles, situationnelles, environnementales et culturelles qui conditionnent ces mêmes réactions. À partir de cette connaissance, des moyens de travailler positivement avec les patients et les clients pourront être élaborés et essayés empiriquement. Bien que nos recherches témoignent que c'est là l'une de nos approches de la santé, nous devons exprimer plus clairement notre définition de la santé, ce que nous partageons avec les autres disciplines et ce qui nous est propre. Nous devons communiquer ces concepts dans nos modèles et nos cadres de recherche.

L'autre manière de nous faire entendre consiste à choisir soigneusement les mots que nous employons. Au cours d'une récente conférence pour la promotion de la santé parrainée par l'École des Sciences Infirmières de l'Université McGill, une collègue, la D^{re} Patricia Vertinsky, directrice adjointe pour l'enseignement de l'Université de Colombie Britannique, fit remarquer que nous étions parfois imprécis dans notre langage sur la promotion de la santé. Bien que nous ayons adopté les mêmes termes, nous les employons parfois différemment. Par exemple, nous utilisons le mot «intervention» pour dire que nous travaillons en collaboration avec nos clients. Cependant, dans le mouvement de promotion de la santé, «intervention» sous-entend que l'on fait quelque chose à un client plutôt qu'avec lui, et cela va à l'encontre de nos principes élémentaires.

Le langage est très important pour la description et l'évaluation de notre perception de la promotion de la santé. Pour communiquer le caractère unique de notre approche en sciences infirmières, nous devons prêter attention à la façon dont nous décrivons nos activités. Il nous faut employer la terminologie de la promotion de la santé de la même manière que les autres disciplines. Nous devons avoir recours aux néologismes seulement quand les termes existants sont inadéquats. Nous devons nous exprimer clairement dans nos modèles de recherche et dans nos études sur notre définition de la santé, sur les mécanismes qui modifient les comportements de santé et sur la façon dont nous travaillons avec nos clients pour apporter les changements désirés. C'est seulement lorsque nous parviendrons à cette précision de la formulation dans nos publications que nous commencerons à nous écouter nous-mêmes et que les autres disciplines commenceront alors à nous entendre.

Laurie Gottlieb
Rédactrice en chef

Bunton R. & Macdonald G. (1992), *Health Promotion*. New York, Routledge.

SOURCES DE STRESS PERÇUES PAR LES SOIGNANTES NATURELLES : UNE ÉTUDE PHÉNOMÉNOLOGIQUE

Gemma Gallant

La maladie chronique d'un parent impose un stress inhabituel au système familial (Stuifbergen, 1990) et un surcroît de responsabilités à la soignante naturelle (Dellasega, 1990). Celle-ci est la principale responsable des soins à domicile, celle qui s'engage à répondre aux besoins physiques et psychosociaux insatisfaits de la personne malade (Bunting, 1989). Jour après jour, année après année, elle doit faire face aux problèmes de la personne malade, ce qui représente une charge excessive sur les plans physique, psychologique et social (Ekberg, Griffith & Foxall, 1986). La maladie chronique peut imposer à la soignante naturelle un stress qui conduit souvent à l'épuisement.

Hinds (1985) soutient que les soignantes naturelles qui ne reçoivent pas de manière continue de l'aide des professionnels de la santé constituent une population à risque. Il est reconnu que, souvent, de tous les professionnels de la santé, seules les infirmières vont à domicile pour apprécier la situation de la personne malade et celle de la soignante naturelle. Cependant, en pratique, l'importance attribuée à la perception qu'a la soignante naturelle de sa situation ne semble pas prioritaire. Pourtant, Watson (1985, 1988) affirme que l'infirmière est dans une position privilégiée pour connaître la perception qu'a la soignante naturelle de sa situation.

Dans leur étude, la grande majorité des chercheurs intéressés au phénomène de la chronicité ont sélectionné un diagnostic médical spécifique (Pollock, Christian & Sands, 1990). Par conséquent, on n'a jusqu'à maintenant relevé que très peu de similitudes au sujet du phénomène du stress lié à la chronicité. La présente recherche s'intéresse aux personnes qui vivent avec un conjoint atteint d'une maladie chronique et de le soigner. Elle a pour but d'identifier, au moyen de la méthode phénoménologique, les sources de stress telles qu'elles sont perçues par les soignantes naturelles.

Gemma Gallant, R.N. M.Ed., M.Sc.inf, est professeure adjointe à l'École des sciences infirmières de l'Université de Moncton.

Le cadre théorique

La théorie du « caring » en soins infirmiers de Watson (1985, 1988) a servi de cadre de référence pour cette étude. Watson utilise une perspective phénoménologique existentielle et spirituelle. Selon cette auteure, chaque personne possède un champ phénoménal unique, subjectif et métaphysique, qui lui permet de percevoir, de manière individuelle, les différentes situations de la vie. Voilà l'aspect phénoménologique. Watson enseigne à l'infirmière à considérer toutes les expériences de l'individu à un moment précis de son existence où il se retrouve en situation de « caring ». C'est l'aspect existentiel. Watson conçoit l'individu comme un être global, en devenir, en considérant son aspect spirituel. Selon elle, la personne possède un corps, un esprit et une âme. Le corps se situe dans le temps et l'espace, mais l'esprit et l'âme transcendent l'instant présent (Aucoin-Gallant, 1990). L'approche phénoménologique existentielle préconisée dans la théorie du « caring » enseigne à l'infirmière qu'il est important de comprendre les réactions individuelles de la soignante naturelle et la perception que celle-ci a de son rôle.

La théorie du « caring » de Watson comprend dix facteurs de soins qui constituent le fondement de la relation interpersonnelle thérapeutique (Martin, 1991). Ces facteurs de soins permettent aux infirmières d'intervenir de manière humaniste et scientifique en procurant des soins intégraux à la personne malade et à celle en santé (Gallant, 1990). L'infirmière s'en sert pour encourager la personne à augmenter son sens des responsabilités et son contrôle d'elle-même face au stress situationnel, à un conflit relié à son développement ou à une perte (Gallant, 1990). Le « caring » permet ainsi de procurer des soins intégraux à la population. Ce type de soins favorise l'humanisme, la santé et la qualité de vie (Figure 1).

Méthode

Cette recherche, basée sur l'approche phénoménologique, privilégie particulièrement la perception que les sujets ont de leur situation. Watson (1988) est d'avis que cette approche est la plus appropriée dans le cadre de sa théorie du « caring ». Cette méthode de recherche en soins infirmiers permet de comprendre l'expérience des phénomènes complexes de santé engageant la globalité de la personne (Leininger, 1985). L'infirmière doit être consciente des perceptions qu'a la soignante naturelle de sa situation et de la réalité des soins infirmiers prodigués (Bergum, 1989). La phénoménologie permet ainsi de respecter et de comprendre l'expérience telle qu'elle est perçue et définie par la personne qui la vit (Poisson, 1990).

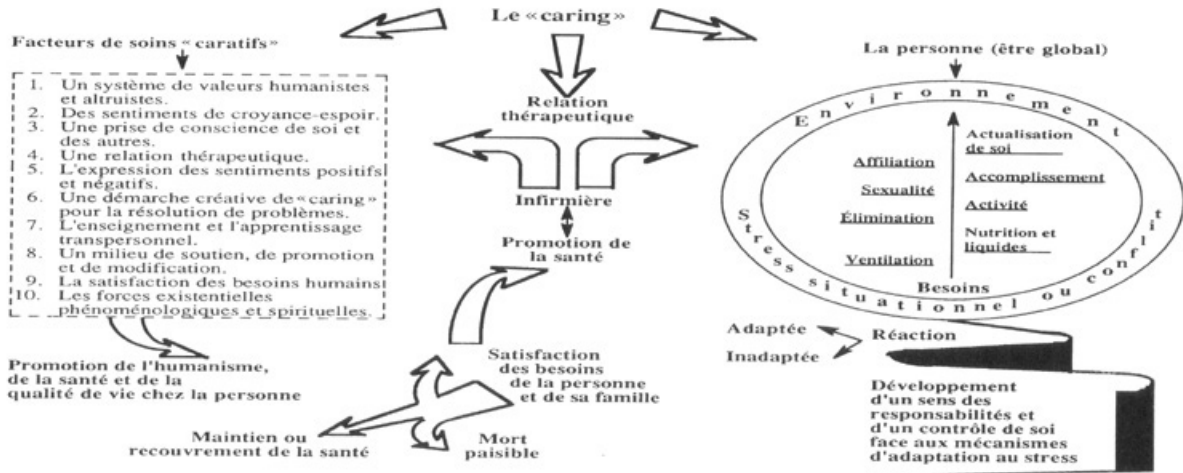


Figure 1

Schématisation de la théorie du « caring » de Watson (Aucoin-Gallant, 1990)

Instruments utilisés

Deux instruments ont servi à réaliser cette recherche : d'abord, un formulaire développé pour recueillir les données sociodémographiques sur la soignante naturelle, puis le questionnaire-entrevue Desjean, Doucet et Gagnon (1983). Ce questionnaire se compose de onze questions ouvertes qui permettent à la famille de décrire comment elle perçoit et vit l'expérience humaine reliée à la chronicité. En phénoménologie, les sujets ne doivent être ni influencés, ni orientés dans leur façon de penser (Aucoin, 1987). Par conséquent, chaque question se veut la plus neutre possible. On demandera, par exemple : qu'est-ce que vous ressentez face aux soins que vous donnez à votre conjoint malade? Le questionnaire-entrevue a été validé, conformément aux exigences de la méthode phénoménologique, par cinq professeurs agrégées et par trois étudiantes de 3^e cycle en sciences infirmières d'une université américaine (Desjean, & Doucet, 1987; Gallant, 1990). Pour cette étude, le questionnaire-entrevue a été adapté à la soignante naturelle et validé, quant à la compréhension des termes, auprès de cinq personnes avant le début de la collecte des données. Les données ont été recueillies par le biais d'une seule entrevue à domicile d'une durée moyenne de 45 minutes. Chaque entrevue a été enregistrée sur magnéto-cassette.

Description de l'échantillon

Les sujets de l'étude sont des femmes qui prennent soin, à domicile, de leur conjoint atteint d'une maladie chronique non terminale contrôlée par un traitement médical. Les sujets vivent avec leur conjoint malade et le soignent depuis au moins deux ans. Au moment de la collecte des données, tous les conjoints malades se situaient dans la phase de stabilité face à leur problème de santé. On a sélectionné les sujets par un échantillonnage de convenance, et tous ont accepté librement de participer à cette étude et signent un formulaire de consentement. On a respecté la confidentialité et l'anonymat tout au long de la recherche.

L'étude porte sur 25 sujets. L'échantillon se compose de femmes, majoritairement d'âge moyen. En effet, 56 % des soignantes naturelles appartiennent au groupe d'âge de 55 à 64 ans et 32 % d'entre elles sont âgées de 45 à 54 ans. Leur niveau d'éducation se situe surtout de l'élémentaire au secondaire. Près de la moitié des sujets (44 %) n'accomplissaient aucun travail rémunérateur au moment de l'étude. Dans cette recherche, quatre groupes de maladies chroniques sont représentées : 40 % des conjoints présentent de l'emphysème pulmonaire, 24 % sont atteints de sclérose en plaque, 20 % ont subi un accident vasculaire-cérébral et 16 % souffrent d'insuffisance rénale. Le tableau 1 démontre que tous les sujets assistent leur conjoint dans au moins une activité de vie quotidienne. La majorité des sujets accomplissent aussi avec leur conjoint une activité de vie instrumentale.

Tableau 1

Caractéristiques des soignantes naturelles liées à la prise en charge du soin de leur conjoint (n = 25)

Caractéristiques des soignantes naturelles	Fréquence	Pourcentage
Perception de leur propre état de santé		
excellent	2	8,0 %
bon	18	72,9 %
passable	5	20,0 %
pauvre	0	0,0 %
Nature du problème de santé du conjoint		
emphysème respiratoire	10	40,0 %
accident cérébro-vasculaire	5	20,0 %
insuffisance rénale chronique	4	16,0 %
sclérose en plaque	6	24,0 %
Nombre d'activités de vie quotidienne effectuées pour le malade (AVQ)*		
1 AVQ	13	52,0 %
2 AVQ	5	20,0 %
3 AVQ	5	20,0 %
4 AVQ et plus	2	8,0 %
Nombre d'activités de vie instrumentale effectuées pour le malade (AVI)**		
aucun	4	16,0 %
1 AVI	13	52,0 %
2 AVI	6	24,0 %
3 AVI	2	8,0 %
Nombre d'heures de soutien informel reçu par semaine		
aucun	18	72,0 %
1-2 heures	4	16,0 %
3-4 heures	1	4,0 %
5 heures et plus	2	8,0 %
Nombre d'heures de soutien formel reçu par semaine		
aucun	18	72,0 %
1-2 heures	3	12,0 %
3-4 heures	3	12,0 %
5 heures et plus	1	4,0 %

* Les activités de vie quotidienne comprennent l'assistance lors du bain et de l'élimination, ainsi que l'alimentation, l'habillement et la mobilité.

** Les activités de vie instrumentale comprennent l'assistance dans les habiletés techniques de soins, par exemple, l'administration des médicaments.

Au moment de l'étude, près de 72 % des sujets ne recevaient aucun soutien continu de la part des professionnels de la santé ni des travailleurs sociaux. Cette donnée appuie les écrits de Strauss et Corbin (1988) qui soutiennent que lorsque la personne malade traverse la phase de retour à la santé ou celle de la stabilité, c'est surtout la soignante naturelle qui veille à répondre à ses besoins.

Procédé d'analyse des données

Pour cette étude, on a utilisé la méthode spécifique d'analyse des données de Giorgi (1975, 1985), dont voici les étapes :

- transcrire le verbatim de chacune des entrevues ;
- lire toute la description émise par le sujet pour en saisir le sens ;
- lire la même description plus lentement pour découvrir toutes les séquences constituantes de la situation, ce qui permet d'avoir une série de séquences constituantes ;
- enlever les répétitions, élucider et élaborer pour soi-même la signification des séquences en les reliant les unes aux autres selon la signification globale de la situation ;
- réfléchir aux différentes séquences exprimées par le sujet, pour découvrir l'essence de la situation, et les écrire dans un langage scientifique. Chaque séquence scrutée attentivement peut révéler des éléments thématiques relatifs à la situation ;
- synthétiser les connaissances acquises dans une description logique de la structure du phénomène étudié.

En résumé, après avoir éliminé les redondances, le chercheur transforme en langage scientifique le contenu de chaque séquence énoncée par le sujet et identifie les éléments thématiques relatifs à la situation. Il regroupe ensuite les éléments retenus dans des catégories générales et procède à l'identification et à la pondération des liens entre les catégories par rapport à l'ensemble du phénomène étudié. Enfin, il apporte des réponses aux questions de recherche. Le contenu de toutes les entrevues semi-structurées des sujets a été analysé en respectant ce modèle. Deux juges détenant chacun un diplôme de deuxième cycle ont refait l'analyse descriptive du contenu des entrevues pour assurer une plus grande objectivité à cette étude. Un pourcentage de similitude de 65 % suffit pour valider les analyses de contenu (Aucoin, 1987; Cara, 1988). Dans cette étude, le pourcentage de similitude des résultats de l'analyse de données est de 80,72%. Miles et Huberman (1984) précisent l'importance de la validation intersubjective pour appuyer davantage les résultats des recherches qualitatives.

Résultats

L'analyse de la perception qu'a la soignante naturelle de sa situation a permis d'identifier les sources de stress. Le tableau 2 présente, par ordre de fréquence, les sources de stress telles qu'elles sont perçues par les sujets, indépendamment du diagnostic médical de leur conjoint. Presque tous les sujets de l'étude (92 %) affirment vivre des limitations sociales liées à des contraintes de temps et à une liberté réduite. Les sujets diminuent la fréquence de leurs visites aux amis et s'engagent très peu dans les activités communautaires.

Tableau 2

Identification des sources de stress perçues par les sujets indépendamment du diagnostic médical de leur conjoint (n = 25)

Sources de stress*	Fréquence	Pourcentage
Limitations sociales	23	92,0 %
Manque d'information de la part des professionnels de la santé	23	92,0 %
Manque de soutien émotionnel de la part des infirmières	23	92,0 %
Incertitude à l'égard de la trajectoire du problème de santé du conjoint	22	88,0 %
Surcroît de responsabilités imposé par le soin ou la fatigue du conjoint	15	60,0 %
Inquiétude des enfants	15	60,0 %
Réponses négatives de comportement social du conjoint	12	48,0 %
Problèmes financiers	8	32,0 %
Peur de la responsabilité du soin aigu	5	20,0 %
Restriction d'activités imposée aux enfants	3	12,0 %

* L'analyse des données a indiqué que la soignante naturelle vit plusieurs sources de stress.

Les sujets apprécient l'information fournie par l'infirmière communautaire, surtout au sujet des soins instrumentaux. Un sujet dit : « À la maison, quand l'infirmière venait, elle disait quoi faire par rapport au masque d'oxygène et aux "pills" ; c'est de quoi qui t'aide. » Toutefois, à deux exceptions près, les sujets soulignent qu'ils auraient aimé que les professionnels de la santé leur donnent davantage d'information sur les soins préventifs et les soins de surveillance. Ils expriment de l'anxiété, de l'inquiétude et de l'incertitude parce qu'ils ne connaissent pas suffisamment le processus de la maladie de leur conjoint. Un sujet affirme : « La maladie, ils te disent pas beaucoup là-dessus ; c'est difficile pour toi de comprendre et de prévenir si personne t'explique. » Les sujets mentionnent qu'ils aimeraient être capables de reconnaître les premiers signes cliniques indiquant une régression de la maladie de leur conjoint. La grande majorité des sujets (92 %) expriment aussi leur désir de recevoir davantage de soutien de la part des infirmières. Un sujet mentionne : « Prendre soin de mon mari c'est pas toujours facile, moi aussi, j'ai besoin d'être supportée, faut de l'aide de l'infirmière. »

La plupart des sujets (88 %) affirment vivre de l'incertitude à l'égard de la trajectoire du problème de santé de leur conjoint. Un sujet dit : « Je me demande ce qui va parvenir de sa maladie; dans le sens, s'il va aller mieux ou pire. » L'incertitude est souvent présente au sein des familles dont l'un des membres est atteint d'une maladie chronique. La majorité des sujets de l'étude (60 %) considèrent que le fait de donner des soins et d'accomplir des tâches ordinairement effectuées par le conjoint constitue un surcroît de responsabilités. Un sujet dit : « Cela demande beaucoup d'énergie de soigner mon mari malade ; tu as toutes les tâches de la maison à faire aussi. » Lors de l'entrevue, les sujets racontent comment les enfants vivent cette situation. La majorité des soignantes naturelles indiquent que les enfants sont inquiets au sujet de la maladie de leur père. D'autres spécifient qu'elles et leurs enfants ne perçoivent pas la situation actuelle avec la même intensité de stress. Un sujet dit : « Les enfants, cela les inquiète moins on dirait ; ils pensent qu'il est mieux qu'il est. Ils ne réalisent pas toute la profondeur de la maladie de leur père. » Au moment de l'étude, la plupart des enfants avaient déjà quitté le foyer familial.

Selon les sujets de l'étude, la majorité des conjoints atteints de problèmes chroniques de santé manifestent des réponses négatives de comportement social. L'irritabilité, la frustration et la manipulation sont les réactions qu'on rencontre le plus souvent chez le conjoint malade. Un sujet dit : « Mon mari, on dirait que tu peux rien faire pour le contenter, il est souvent irritable depuis qu'il est malade. » D'autres sujets mentionnent cependant que leur conjoint présente des réponses positives de comportement social. Un sujet dit : « Mon mari, il n'est pas tannant à soigner, il est toujours de bonne humeur, il est "super", je te dis que cela aide. » Les réponses positives de comportement social du conjoint malade semblent constituer une forme de soutien pour la soignante naturelle.

Discussion

Cette recherche a démontré qu'être soignante naturelle amène plusieurs sources de stress, dont les plus importantes sont les limitations sociales, le manque d'information et de soutien émotionnel, et l'incertitude quant à la trajectoire du problème de santé du conjoint. Dans la littérature portant sur le phénomène du stress, quelques auteurs ont identifié des problèmes communs vécus par les soignantes naturelles. En effet, Snyder et Keefe (1985) précisent que les soignantes naturelles vivent une perte de leur liberté, des limitations sociales et des contraintes financières. Dans le même ordre d'idées, Webster et Newhoff (1981) sont d'avis que les soignantes naturelles vivent un surcroît de responsabilités imposé par le soin, une perte de leur liberté et des limitations sociales. Fever (1987), Hirst et Metcalf (1986) mentionnent que les soignantes naturelles reçoivent très peu d'information et de soutien de la part des professionnels de la santé. Ainsi, les sources de stress identifiées dans cette étude se rapprochent de celles qu'on trouve dans la littérature.

Presque tous les sujets de l'étude vivent des limitations sociales. Fitzgerald (1989) suggère de mobiliser très tôt les sources de soutien social disponibles et de constituer ainsi un réseau de soins collectif avec les autres membres de la famille. Ce même auteur ajoute que ce type de soin procure davantage de temps et de liberté à la soignante naturelle, lui permettant ainsi de participer davantage aux activités sociales.

Il ressort de cette étude que l'information fournie aux soignantes naturelles se limite surtout aux soins instrumentaux. Cependant, celles-ci procurent aussi des soins préventifs, des soins de surveillance et des soins protecteurs. La grande majorité des sujets ont dû indiquer l'importance de recevoir davantage d'information au sujet du processus de la maladie de leur conjoint. Powers (1985) affirme que l'information sur la maladie du conjoint aide la soignante naturelle à faire face à sa situation. Le fait que les soignantes naturelles désirent recevoir davantage de soutien émotionnel des infirmières peut signifier que les soins dispensés ne sont pas toujours des soins intégraux. Il se peut que l'accent mis sur les soins infirmiers soit destiné surtout à évaluer l'habileté de la soignante naturelle à procurer de soins physiques à son conjoint. Le manque de soutien émotionnel a déjà été identifié comme source importante de stress pour la soignante naturelle (Schlepp, 1989).

La grande majorité des soignantes naturelles vivent de l'incertitude quant à la trajectoire du problème de santé de leur conjoint. Wineman (1990) est d'avis que l'incertitude peut nuire à l'adaptation de la personne à sa situation. Lazarus et Folkman (1984) abondent dans le même sens en précisant que lorsque l'avenir n'est pas clairement défini, il peut représenter une menace pour la personne.

Cette recherche met en évidence le fait que les réponses négatives de comportement social du conjoint atteint de maladie chronique sont une source de stress pour la soignante naturelle. Le conjoint peut se servir de sa maladie pour contrôler les comportements des membres de la famille, particulièrement ceux de la soignante naturelle (Wright & Leahey, 1984). L'irritabilité du conjoint est aussi un problème rapporté par les soignantes naturelles dans l'étude de Sexton et Munro (1985). Aucoin (1987) suggère à l'infirmière d'aider davantage la personne malade à exprimer ses sentiments de frustration et d'irritabilité afin qu'elle puisse s'en libérer et accepter son problème de santé pour mieux s'actualiser.

Une approche de soins basée sur la théorie du « caring » de Watson permet à l'infirmière de se soucier de la perception qu'a la soignante naturelle de sa situation. Ainsi, l'infirmière reconnaît les besoins insatisfaits perçus par cette population. Dans cette étude, les besoins prioritaires des soignantes naturelles se trouvent dans le soutien social, éducationnel et psychologique et dans le renforcement. Dans une situation de « caring », l'infirmière aide la soignante naturelle à se prendre en charge, à déléguer des tâches aux amis et à utiliser efficacement les ressources communautaires disponibles dans le milieu. L'infirmière appuie la soignante naturelle de sorte qu'elle puisse rencontrer son besoin d'affiliation afin de mieux s'actualiser.

Selon Watson (1985), une des fonctions importantes de l'infirmière est de dispenser de l'enseignement orienté vers les problèmes réels vécus par la personne. Ainsi, l'infirmière fournit à la famille de l'information en considérant l'aspect global du soin. Cette information permet à la soignante naturelle d'augmenter son habileté à prédire ce qui peut arriver, ce qui favorise un meilleur contrôle d'elle-même et permet de réduire par conséquent son incertitude. Watson (1985), reconnaît aussi la nécessité d'aider la soignante naturelle à développer davantage une pensée positive à l'égard de sa situation. Ainsi, si elle conserve une attitude positive face au changement et si elle obtient de l'information, la soignante naturelle pourra avoir une réaction plus favorable face au stress. Dans une perspective de « caring », l'infirmière fournit du soutien éducationnel et émotionnel à la soignante naturelle et s'assure que les autres lui en procurent aussi. La soignante naturelle a besoin de l'appui de son réseau social et de l'aide de professionnels de la santé afin d'être capable de maintenir son rôle.

Cette étude faite auprès de 25 soignantes naturelles ne tient pas compte, dans la sélection des sujets, de la durée du « caregiving ». Cette limite est minimisée par le fait que tous les conjoints malades se trouvaient dans la phase de stabilité face à leur problème de santé et que les soignantes naturelles vivaient avec leur conjoint malade depuis au moins deux ans. L'emploi de la méthode phénoménologique restreint le nombre de sujets d'étude, à cause de la complexité de l'analyse de contenu de chaque entrevue. Pour cette raison, et

parce que les sujets ont été sélectionnés par échantillonnage de convenance, on ne peut généraliser les résultats de cette étude.

Cette recherche présente les différentes sources de stress perçues par les soignantes naturelles durant la phase de stabilité du problème de santé de leur conjoint. Une étude longitudinale pourrait identifier les sources du stress vécu par la soignante naturelle à toutes les phases de la maladie du conjoint selon le modèle de la trajectoire du problème de santé de Strauss et Corbin (1988). En se référant aux sources importantes de stress mentionnées dans cette étude, nous pourrions explorer les relations existantes entre le soutien social, le « coping », l'incertitude et les besoins éducationnels des soignantes naturelles. D'autres recherches en soins infirmiers, de nature qualitative, pourraient être entreprises afin de décrire, par exemple, ce que c'est qu'être soignante naturelle et la réalité des soins dispensés aux familles. Ces recherches futures permettraient une meilleure compréhension de la situation vécue par la soignante naturelle.

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Ce projet de recherche a été subventionné par la Faculté des études supérieures et de la recherche de l'Université de Moncton durant deux années consécutives.

ABSTRACT

Sources of stress from the perspective of caregivers: A phenomenological study

The purpose of this phenomenological study was to identify the sources of stress experienced by caregivers. Twenty-five spouses were interviewed. All were taking care of their husbands who were living at home with a chronic illness. Two instruments were used: a sociodemographic questionnaire and a semi-structured interview developed by Desjean, Doucet, and Gagnon (1983) specifically for phenomenological studies. Interviews were audiotaped, transcribed, and analyzed by Giorgi's test. The results indicated that being a caregiver is stressful. The unsatisfied needs for education and social support, the uncertainty about the outcome of the illness, and the loss of freedom and social activities are the major sources of stress expressed by caregivers. These findings should encourage nurses to evaluate the caregivers' situation and initiate interventions that assist them in decreasing sources of stress.

LONGITUDINAL PANEL ANALYSIS OF NURSING REGISTRANT DATA

Robert D. Hiscott and Michael T. Sharratt

This paper examines the methodological advantages and limitations of applying techniques of longitudinal panel analysis to nursing registrant databases. Given that the costs for primary data collection are increasing, it is essential to take full advantage of existing data sets through secondary data analysis techniques. Nursing registrant databases (collected regularly by licensing authorities, government agencies and other organizations in many jurisdictions) provide an excellent opportunity for investigating mobility trends and patterns in nursing employment over time. This paper describes one such data set and identifies the strengths and weaknesses of applying longitudinal panel analysis techniques to the data.

All registered nurses working within the profession in the province of Ontario are required to renew their registration with the College of Nurses of Ontario (CNO) on an annual basis. Each year registrants must complete a short survey focusing on the nature of their employment at the time of registration. Variables collected from the survey form include employment status (full-time, part-time or casual), place of employment (a detailed classification of the type of unit or organization nurses are employed by), primary responsibility (or practise specialty within the profession), and position type (according to status and degrees of authority within organizations), along with other information. The CNO has collected such data for many years, but has only recently (since 1984) been recording them in machine-readable form for data processing.

A large population database containing all available nursing registrant survey data (from 1984 to present) was constructed. Data for individual registrants were linked across the years by matching the CNO registration numbers, which were unique for each individual. By processing and analyzing registrant data as a longitudinal panel (covering a number of years), it is possible to track the employment histories of individual registrants over time, and highlight their subtle yet significant transitions in employment. This permits a detailed investigation of patterns of stability and mobility, since it is possible to directly

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compare the classification of individual registrants on a given variable from year to year. Various analyses can be applied to the longitudinal panel data for detecting significant trends.

Longitudinal panel analysis is distinct from more traditional analyses of simple cross-sectional surveys, which do not track individuals over time. Most previous research on the employment of nursing professionals has taken the form of cross-sectional surveys or one-shot case studies. While this may provide profile "snapshots" at distinct times (Uncles, 1988, p.3), much of the change or employment mobility can only be assessed by actually tracking the experiences of individuals over a period of time using a longitudinal panel design.

Even when cross-sectional surveys are retrospective (e.g., covering employment histories), the survey data are inferior to those generated via longitudinal panels. Accurate recall may pose serious problems when long periods of time are being covered by a single cross-sectional survey or when very detailed information about multiple past employment experiences is being requested. Uncles (1988, p.3) summarized that: "Inaccuracy is a problem [with cross-sectional surveys] because people's recollections are relied upon when it is known that their memories are fallible."

A longitudinal panel design avoids problems of recall by requesting only current or very recent information at distinct points in time which may later be merged together for a full-scale panel analysis. The data collected are generally fresh in the minds of registrants as they are completing survey forms, and records are therefore believed to be more accurate (Uncles, 1988, p.4). It has also been suggested that with panel designs there are fewer problems associated with recall loss, recall distortion, and telescoping or over-reporting for a specified recall period (Uncles, 1988, p.4).

Another distinct advantage of working with longitudinal panel data relates to the possibility of establishing causal ordering among study variables. In his book on longitudinal data analysis, Coleman (1981, p.65) stated that: "With panel data some information about the sequence of states is available, and under certain conditions, this information can aid in establishing the causal order." He added that: "This information about causal ordering is in many cases the principal purpose of obtaining panel data rather than depending on cross-sectional data." Uncles (1988, p.5) concurred, noting that with longitudinal panel designs "... spurious statistical effects can be isolated from real behavioural effects."

Longitudinal panel analysis offers a very different research strategy and direction. For the nursing registrant data discussed here, it permits a more systematic and thorough investigation of the employment mobility and stability of Ontario registered nurses. This analysis goes well beyond the detection of aggregate profile differences over time, identifying the changers and their

impact on the nursing profession province-wide, as well as the stable professionals who are contributing to the status quo. Longitudinal panel analysis helps to identify a number of subtle, yet important shifts over time which are not readily apparent from a simple analysis of aggregate profile changes.

As with any data analysis, there are distinct limitations associated with longitudinal panels such as the nursing registrant data described here. One of the most serious limitations relates to changes in the definition of variables over time. For some of the survey variables, new categories were added and old categories deleted to improve the accuracy of the data collected and capture important changes in nursing practice. Campbell, Mutran, and Parker (1986, p.485) observed that managing a complex longitudinal data set requires many difficult decisions, including coding comparability over time.

In the current context, for instance, the category "nursing in several areas" was added to the "primary responsibility" variable to reflect the fact that an increasing proportion of registered nurses were working in more than one specialty. Such modifications have an impact on the distribution of registrants across remaining categories and complicate the analysis of mobility patterns on single variables over time. The variables of marital status and nurses' union membership status were dropped from the CNO registrant survey form in 1989 after there were objections to personal data of this nature being collected. Hence, it is no longer possible to examine the relationship between these factors and critical employment variables over time.

Another limitation of longitudinal panel data analysis is that there are missing data for some critical variables. In some cases the survey form specifically excludes certain segments of the nursing population, such as those working outside of the province of Ontario, or those working outside of the field of nursing. As well, the annual registrant survey does not capture data from first-time registrants — those who have recently entered the nursing field and are registering with the College of Nurses of Ontario for the first time. Survey data on first-time registrants are not collected until their second year of registration.

The non-reporting of data invariably causes problems with surveys where completion is voluntary. Liang and Zeger (1986, p.20) noted that missing data were common in some longitudinal studies, but stressed that they must be completely random (that is, missing status must not be dependent upon a previous outcome) in order to ensure that estimated statistical parameters be consistent. In future, the problem posed by missing data is expected to be lessened. The CNO has introduced new regulations which will make survey form completion mandatory for all registrant surveys beginning in 1990.

As a longitudinal panel, CNO registrant data are further limited since they only capture one classification for each employment variable per year. Multiple

changes in classification in a single year are not captured on the survey form and the true magnitude of employment mobility is underestimated. For instance, short-term switching behaviour, such as moving from a general hospital to a nursing home and back to a general hospital all in the same year, cannot be detected.

Further, since broad categories are used on the survey form other instances of actual mobility may be missed or masked as stability over time. For instance, a nursing registrant may report being employed in a general hospital on 1989 and 1990 survey forms (which would be classified as stability or no change over time), but may have moved to a new general hospital in the interim. In this case, employment mobility would not be evident from the analysis of the longitudinal panel.

It is important to recognize that CNO registrant data were originally collected for administrative, rather than research purposes. Analyses were performed annually. Only recently have data from consecutive years (1984 to present) been linked together via registration identification numbers to construct a longitudinal panel for the Ontario nursing population. While the survey was not originally designed for longitudinal panel analysis, it is certainly possible to restructure registrant data into a longitudinal panel form to derive new insights into the employment mobility of nursing professionals. Despite the aforementioned limitations and problems, it is a rich data source for the analysis of mobility patterns among registered nurses over time.

Data Illustration

A simple example is provided here to demonstrate the advantages of examining nursing registrant data in longitudinal form rather than relying upon cross-sectional survey analysis. While the illustration described here focuses on only one-year change, the techniques of longitudinal panel analysis can easily be extended to examine any time frame of interest. For example, Hiscott (1991) produced two analyses for the period 1984 to 1989, based on registrant data and using all available variables.

Table 1 provides frequency distributions for employment status of registered nurses for the 1989 and 1990 registration years. These figures include registered nurses working both inside and outside of the province of Ontario, who reported their employment status on both 1989 and 1990 survey forms. The figures shown for each year represent results from treating each of the two annual surveys as a simple cross-sectional survey. Since there are negligible differences in the percentages over the two years, one would be tempted to conclude that there was virtually no mobility among registered nurses.

Table 1***Employment Status of Ontario Registered Nurses for 1989 and 1990***

	1989		1990	
	Number	Percent	Number	Percent
Full-Time	45,053	58.6	45,020	58.5
Part-Time	24,817	32.2	25,026	32.5
Casual	7,100	9.2	6,914	9.0
Totals	76,960	100.0	76,960	100.0

The aggregate profile for employment status presented in Table 1 provides a partial picture at best; it does not truly reflect the extent or magnitude of employment mobility along this dimension over time. Table 2 shows employment status data for the same two years treated in longitudinal form — that is, viewed as a longitudinal panel rather than as two independent cross-sectional surveys. Only by examining this turnover table is it possible to ascertain the magnitude of mobility along this employment dimension, to determine the proportion of stable and mobile registrants, and identify patterns of mobility.

Table 2***Mobility Between 1989 and 1990 for Employment Status of Ontario Registered Nurses****

Employment Status 1989	Employment Status 1990			
	Full-Time	Part-Time	Casual	
Full-Time	53.5	3.8	1.2	45,043
Part-Time	3.8	26.4	2.1	24,817
Casual	1.2	2.3	5.7	7,100
Column Total	45,020	25,026	6,914	

* Cell entries are grand percents totalling 100% for the table

The shaded cells of the turnover table (Table 2) represent stability; a total of 85.6% of registrants did not change employment classification between 1989

and 1990. However, the remaining 14.4% of registered nurses (approximately one in seven) were mobile, with a total of 7.3% increasing their status (i.e., moving from part-time to full-time (3.8%), and from casual to full-time (1.2%) or part-time (2.3%)), and 7.1% decreasing their employment status between 1989 and 1990. Equivalent proportions of registered nurses increased and decreased their employment status, as shown by the basic symmetry in the turnover table. The number of registered nurses moving between pairs of categories tend to be comparable (e.g., the number changing from full- to part-time status is very similar to the number moving in the reverse direction, from part- to full-time status). This pattern of symmetry is not necessarily found in other mobility or turnover tables.

Discussion

While little change was evident from Table 1, approximately one in seven registered nurses reported changing their employment status between 1989 and 1990 as seen in Table 2. By treating nursing registrant data as a longitudinal panel rather than as independent cross-sectional surveys, it is possible to determine the actual magnitude of mobility along different employment dimensions. When similar techniques of longitudinal panel analysis were applied to other employment variables, there were relatively high levels of mobility — even over a one-year period. Approximately one in eight (12.4%) of registered nurses reported a change in their place of employment, and a full quarter (25.9%) indicated a change in primary responsibility. The magnitude of mobility increases considerably when longer time frames are examined. Hiscott (1991) found, for example, that over the period 1984 to 1989 31.3% of reporting nurses indicated a change in their employment status. By applying the techniques of longitudinal panel analysis to nursing registrant data, it is possible to achieve a better understanding of employment mobility.

While the illustration provided here is a simple one, a variety of more sophisticated multivariate techniques are appropriate for the analysis of longitudinal panels. For instance, Campbell, Mutran, and Parker (1986) compare three different multivariate statistical methods as applied to longitudinal panel data: multivariate analysis of variance or MANOVA, linear structural relations or LISREL, and a third class of similar models including hazard models, event history analysis, and survival analysis. They conclude that each of these statistical techniques is appropriate for different research problems involving longitudinal panel data, and that no single technique is optimal for all situations.

One can add to this group of statistical methods a class of log-linear models which are appropriate for the analysis of mobility or turnover tables and hence well suited for the analysis of longitudinal panel data. Log-linear modelling is a powerful statistical technique for the analysis and interpretation of relation-

ships or associations between categorical (nominal-level) variables. A particular class of log-linear models (independence, quasi-independence, symmetry and quasi-symmetry) are especially appropriate for the analysis of turnover or mobility tables (Hagenaars, 1990; Hout, 1983). In each case, these models are applied to symmetrical turnover tables which express registrant status at two points in time. Variables must be recoded to ensure the same coding scheme is used for both years providing standardized square (symmetrical) turnover tables. These models were useful for examining the nature of relationships in complex mobility tables for a longer time frame — 1984 to 1989 (Hiscott, 1991).

Whether one wishes to examine data in a simple fashion (i.e., looking at percentage distributions in turnover tables), or through applying more complex multivariate statistical models, the benefits of working with longitudinal panel data are clear. Far more accurate information can be gleaned about the nature and magnitude of employment mobility through treating these nursing registrant data as a longitudinal panel, as opposed to analyzing a series of independent or cross-sectional surveys. Nursing registrant data (whether collected by a licensing body, government agency or other organization), when organized in a longitudinal panel form, can provide important information on the employment mobility of nursing professionals.

Implications

Given that primary data collection through survey research is very costly, it is prudent to make full use of existing survey data sets when possible. The form of secondary data analysis applied in this paper makes fuller use of registrant data that were originally collected by CNO for administrative purposes. When organized in the form of a longitudinal panel, these data help answer some very specific research questions about the employment mobility of nursing professionals.

The methods described here could be applied to registrant data from other jurisdictions (e.g., data collected by other provincial licensing authorities), as well as other professions. To illustrate the latter point, CNO data for registered nurse and registered nursing assistant groups were set up in longitudinal panel form as separate data sets for the analysis of employment mobility patterns of each. Independent analysis of the data for each professional group was essential since important differences in the basic employment profiles had a significant impact on employment mobility patterns.

By applying these techniques to registrant data from other jurisdictions it would be possible to address national trends, and provincial or regional differences in patterns of employment mobility of nursing professionals. Do registered nurses in Ontario, for example, experience more or less employment mobility than nurses in British Columbia or Atlantic Canada? Does the form of employment mobility differ from province to province? Comparisons between

provinces or regions could yield important information on differences in employment mobility trends among nursing professionals. However, in order to conduct such regional comparisons, data collection would have to be highly standardized. For instance, it would be helpful if all provincial licensing authorities used a common survey questionnaire for the collection of registrant information. Such standardization would help to ensure that any comparisons between provinces or regions would be accurate and reliable.

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This paper is based on research conducted by the Ontario Nursing Human Resources Data Centre, which is a joint venture of the College of Nurses of Ontario and the Centre for Applied Health Research, University of Waterloo, with funding provided by the Ontario Ministry of Health.

We wish to thank Bonnie Turner who generated computer output and prepared the tables presented in this report. We would also like to thank the College of Nurses of Ontario for making registrant data available to us.

RÉSUMÉ

Analyse d'une étude longitudinale sur les personnes inscrites en sciences infirmières

Cet article concerne les techniques d'analyse d'études longitudinales sur les personnes inscrites en sciences infirmières. Ces informations sont recueillies chaque année par l'Ordre des infirmières et infirmiers de l'Ontario. Le traitement des données recueillies sous une forme longitudinale au cours de plusieurs années permet d'examiner en détail les différents schémas de mobilité d'emploi des professionnels en sciences infirmières de l'Ontario. Cette technique permet de suivre pendant quelque temps l'historique d'emploi des personnes inscrites en sciences infirmières, et d'identifier celles qui changent de statut dans le cadre de leur emploi pendant une certaine période. Un exemple simple est fourni pour démontrer les forces de ce type d'analyse, et les avantages méthodologiques par rapport aux recherches transversales simples sont décrits. Les limitations quant au travail sur des données recueillies longitudinalement sont également évoquées.

PSYCHOSOCIAL ADJUSTMENT IN POST-MENOPAUSAL WOMEN

Jacqueline Roberts, Lesley F. Chambers,
Jennifer Blake, and Colin Webber

The menopause is defined as cessation of menses for longer than six months. Most women experience the menopause at about 50 years of age, and it is estimated that 30% of the population will be menopausal by the year 2000. Recently there has been considerable interest in the relation between hormone replacement therapy (HRT) for menopausal women and the incidence of osteoporosis, cardiovascular disease, and cancer of the breast and endometrium. Of equal importance is the effect of menopause and related therapies on the quality of life of these women. The purpose of this study was to examine the psychosocial adjustment to menopause in subjects enrolled in a trial of hormone replacement and in subjects attending a family practice unit. In addition, the effects of different HRT regimes on the quality of life of menopausal women were compared. The results of bone mass measurements showing increased bone mass for HRT groups are reported elsewhere (Blake, Chambers, Roberts & Webber, 1993).

Literature Review

The research literature on menopause is vast and the subject has been broached by different disciplines. The findings are divergent. It was suggested by Wilson and Wilson (1963) that estrogen solves all the problems of the post-menopausal woman. Utian (1972), on the other hand, concluded that only hot flushes and atrophic vaginitis were directly associated with estrogen deficiency; depression, irritability, angina pectoris, insomnia, palpitations as well as other reported signs, were not.

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Epidemiological studies have surveyed menopausal symptoms and searched for relationships between them. Hunter, Battersby, and Whitehead (1986) used principal component analysis to examine the association between symptomatology, general health, and psychosocial factors. They found that certain psychological and somatic symptoms occurred in clusters. Some, such as vasomotor symptoms and sexual changes, were most closely associated with menopausal status; others were more clearly associated with psychosocial factors such as social class, employment status, and age. Kaufert, Gilbert, and Hassard (1988) searched for relationships between physical, menopausal, and psychological symptoms using factor analysis and found a significant association only between vasomotor symptoms and menopause. A recent Danish study (Koster, 1990) found that hot flushes (49%) and psychological symptoms (33%) were the two most common reasons women gave for starting HRT.

Psychological studies have been reviewed by Dennerstein (1987) and showed that clinicians need to be aware of underlying personality factors that may be important determinants of a woman's response to hormonal changes. For example, in a small sample size correlational study, women who were anxious and detached were shown to be more likely to develop symptoms in the peri-menopausal period (Collins, Hanson & Eneroth, 1983). However, Youngs (1990) concluded that contemporary epidemiologic and clinical studies failed to substantiate the existence of menopausal depression as a separate entity; Gath and Iles (1990) considered that depressive disorders are no more common at the time of menopause than at other physiological stages.

Social scientists have maintained that the psychological symptoms of mid-life are not causally related to biological changes, but reflect expectations and attitudes of particular socio-cultural groups. Cultural norms and values determine the significance of youth, menstruation, fertility, menopause, and aging. More menopausal complaints are expected from women living in youth-oriented cultures where fertility is valued and aging is feared. For example, Arabian women report few or no menopausal symptoms (Maoz, 1973). Similarly, women from India eagerly await menopause because their social status improves; more respect is given to elders in Indian society (Flint, 1975).

Socio-demographic variables such as unemployment have been associated with menopausal, somatic, and anxiety symptoms (Hunter, Battersby & Whitehead, 1986). Thus, many psychosocial factors may be important in determining women's experience of menopause. In a double-blind, crossover trial of HRT in women undergoing surgical menopause (Dennerstein et al., 1979), treatment had a beneficial effect on anxiety, irritability, and insomnia in part due to the alleviation of hot flushes.

The nursing literature has examined various means of assessing women's attitudes towards menopause, including a questionnaire developed by Bowles (1986) and tested in a group of 923 women. It was based on self-assessment of

20 factors on a seven-point scale. This menopause attitude scale was shown to be a valid and reliable instrument for the assessment of attitudes towards menopause. The Massachusetts Women's Health Study, as reported by Avis and McKinlay (1991), indicated that symptom reporting during menopause was related to women's negative attitudes prior to menopause.

Recently, there have been interdisciplinary analyses of studies from the medical, nursing, social, and psychological literature. It is apparent that in addition to endocrine changes, socio-cultural, attitudinal, and psychological factors all contribute to symptoms associated with the menopause. However, there are few studies that examine how women adjust psychosocially with or without medical therapy. One study by Polit and Larocco (1980) explored the relationship between social and psychological characteristics of women and the manifestation of menopausal symptoms. Twenty percent of subjects said their symptoms were somewhat severe. The social factors that appeared to be related to the reporting of more symptoms were a lower level of education, unemployment, and a perception of poor general health. However, symptom reporting was not related to such social factors as marital status, religion, age, parity or income. The number of symptoms reported was significantly related to psychological variables such as self-confidence and personal adjustment, but unrelated to others such as heterosexuality or autonomy.

In 1933, 10% of 1,220 women included in a survey said they were incapacitated by menopausal symptoms (Council of Medical Women's Federation, 1933), and in 1974 McKinlay and Jefferys found that 20% of 638 women sought medical treatment for menopause-related symptoms. These figures are similar to those reported by Newton and Odon (1964): of 80 women surveyed, 10% claimed that menopausal symptoms interfered with their work and 23% consulted a physician. Studies have asked women to list symptoms of menopause, but rarely examined the effect of these on the menopausal woman's quality of life or the impact of HRT.

Research questions

What is the incidence of poor psychosocial adjustment in a sample of post-menopausal volunteers who entered a study of the effect of HRT upon bone mass (Sample A)? How does the psychosocial adjustment of Sample A compare to a sample of post-menopausal women attending a family practice clinic for other health reasons (Sample B)?

Is the change in psychosocial adjustment over an 18-month treatment period different between groups of menopausal women receiving calcium alone or calcium plus HRT (Sample A)?

METHODOLOGY

Sample A

Volunteers for a menopause research clinic were recruited by means of advertisements in local newspapers and on radio and television. All 258 respondents were contacted. Eligible candidates were within 10 years of last menstrual period (LMP), were not currently using HRT, and were in good health. Those meeting the eligibility criteria were invited to enter a trial of treatment with calcium alone or calcium and HRT for two years. Measures of socio-demographic variables, perceived knowledge of menopause, psychosocial adjustment to menopause, bone strength, and the effects of therapy upon expressed symptoms were taken.

Thirty-five women chose to enter the calcium-alone group. Eighteen were randomized to receive continuous 0.3 mg Premarin and 2.5 mg Provera, and 19 to receive 0.625 mg Premarin on days 1-25 and 5.0 mg Provera on days 16-25. All women visited a research clinic every six months where they were able to discuss all questions about menopause with the clinic gynecologist or with a research assistant.

Sample B

To test if women in Sample A were representative of other post-menopausal women, 37 women attending a family practice clinic were also studied. They had begun menopause within the preceding five years, were not on HRT, and were visiting their family physician for various health reasons. Of 185 individuals approached, only 37 who were not on HRT were eligible for the study.

Sample A volunteers were asked to complete all of the data sheets and questionnaires as described in the following section; Sample B participants completed all but the symptomatology checklist.

Socio-demographic data

The socio-demographic data sheet requested information on marital status, age, employment status, date of last menstrual period, number of children, exercise level, and use of drugs such as caffeine, tobacco, alcohol, and calcium. In addition, subjects were asked if they had a past history of fractures, hysterectomy or a family history of osteoporosis. Body mass index (BMI) was determined from weight and height.

Menopause knowledge

A menopause knowledge questionnaire was constructed by the authors in order to assess each subject's level of understanding of menopausal concerns.

The higher the score, the higher the level of understanding. Also measured was their degree of comfort when discussing these concerns with others, and the sources of information that each subject found useful were identified.

Face and content validity was assessed by three expert clinicians as good. Criterion validity was assessed by correlating their level of unanswered questions with a question in the Psychosocial Adjustment to Illness Scale Self Report (PAIS-SR) questionnaire asking if the person had many unanswered questions. There was a modest positive correlation ($r = 0.29$).

Psychological adjustment questionnaire

Psychosocial adjustment was measured using the Psychosocial Adjustment to Illness Scale (PAIS) self-report questionnaire developed by Derogatis and Lopez (1983) to measure psychosocial adjustment to illness. The questionnaire measures the individual's interaction with other individuals and institutions representing the sociocultural environment. The PAIS-SR is comprised of 46 questions divided into seven domains of psychosocial adjustment: health care orientation, vocational environment, domestic environment, sexual relationships, extended family relationships, social environment, and psychological distress derived from their widespread acceptance in health care practice. Each question was rated on a four-point scale. It is considered reliable and valid for a population of people with chronic illness (Morrow, Chiarello & Derogatis, 1978). It has not previously been used to determine psychosocial adjustment to menopause. In this study, reliability (internal consistency) of the PAIS-SR was determined by measuring Cronbach's alpha for each subscale ($\alpha = 0.65, 0.86, 0.88, 0.81, 0.55, 0.95, 0.93$).

The PAIS-SR questionnaire was used, but the word "menopause" was substituted for "illness." Brenner and Wrubel (1989) define illness as the human experience of loss, dysfunction or concern, and they indicate that a symptom is an interruption, an inconvenience or a health worry. Illness is the human response to the symptom. Thus, it was considered that, at least with respect to psychosocial adjustment, it was justifiable to substitute the word "menopause" for "illness." Subjects had no difficulty answering the PAIS questions as related to menopause. Assessments of psychosocial adjustment were made at enrolment for sample A and B and after 18 months of therapy in Sample A.

Symptomatology checklist

The symptomatology checklist was a 16-item questionnaire which asked subjects to rate a number of signs and symptoms (benefits and side effects) as increased, unchanged or decreased after therapy. Signs and symptoms included weight gain, bloating, headaches, breast tenderness, hot flushes, vaginal dryness, appetite, sleep disturbance, sexual interest, feelings of depression, feelings of well being, feelings of optimism, feelings of attractiveness, clearer thought

process, and heavy heartbeat or heart flutter. These were divided into beneficial effects and negative effects of HRT. The symptomatology checklist was completed after six months of therapy.

Results

Sample A

The comparison of baseline socio-demographic and lifestyle measures for the three groups of volunteer menopausal women in Sample A is shown in Table 1. There were no statistically significant differences among the three groups, except for marital status. On the average, the women were approximately 54 years of age, had been menopausal for about three years, had 2-3 children, were not heavy drinkers of alcohol or coffee, and were mostly non-smokers. Most were married and working.

The psychosocial adjustment scores are given in Table 2. A score greater than 50 is considered to represent poor adjustment (Derogatis and Lopes, 1983) while a score between 35 and 50 is considered to represent fair adjustment as determined in a previous study (Browne et al., 1985).

The mean total PAIS score for the 72 women was 21.6 at enrolment, indicating that most were well adjusted. There was no statistically significant difference between groups as determined by analysis of variance or Kruskal-Wallis (when non-homogeneity of variances was evident) in any of the subscale or total PAIS scores before therapy (Table 2). Psychosocial adjustment was generally good in all three groups. In total, three women were poorly adjusted and seven were fairly adjusted for a total of 10; therefore, 14% of the sample was not well adjusted. As measured by the subscales, the most poorly adjusted area was in health care orientation, followed by psychological distress, and altered sexual relationships. The health care orientation subscale is comprised of eight questions about health attitudes and reception of menopause-related health care information. The psychological distress subscale asked women whether the menopause had made them feel more anxious, depressed or worried or had altered their body image. The sexual relations subscale dealt with adjustment to, interest in, and the quality of interpersonal sexual relationships.

No differences were detected when the three treatment groups were compared with respect to perceived knowledge of menopausal issues (Table 3). All three groups demonstrated a poor understanding of bone health and the safety and efficacy of estrogen replacement therapy. In all three groups women indicated that they would be more comfortable discussing their menopausal concerns with health professionals and friends than with husbands or relatives. All groups indicated that in the past they had found written sources the most useful for learning about menopausal concerns.

Table 1

Comparison of Socio-demographic, Lifestyle and Bone Health Variables for Three Groups of Postmenopausal Women (Sample A)

	Calcium only (n = 35)	Continuous HRT ² (n = 18)	Cyclic HRT (n = 19)	Statistic		
	Mean (SD) ¹	Mean (SD)	Mean (SD)	F _{2,69}	P	
Age	54.4 (3.0)	54.6 (3.3)	53.1 (3.4)	1.28	0.28	
BMI	25.6 (5.1)	23.9 (3.3)	24.1 (4.3)	1.13	0.33	
Years Since Last Menstrual Period	2.5 (1.7)	2.8 (2.3)	3.0 (1.8)	0.49	0.62	
Children	2.9 (1.5)	2.4 (1.7)	2.4 (1.2)	1.02	0.37	
Coffee: Cups/Day	2.7 (2.1)	2.9 (2.6)	2.4 (1.7)	0.27	0.77	
Alcohol: Drinks/Week	2.6 (2.6)	3.7 (2.4)	3.1 (2.5)	1.05	0.36	
	N %	N %	N %	X ²	df	P
Current or Former Smoker	12 34%	9 50%	5 26%	2.35	2	0.35
Little Exercise	17 49%	10 56%	11 58%	0.50	2	0.78
History of Fracture	11 31%	7 39%	3 16%	2.60	2	0.28
History of Osteoporosis	17 49%	7 39%	8 42%	0.51	2	0.78
Hysterectomy	4 11%	3 17%	2 11%	0.39	2	0.82
Calcium Use	15 43%	6 33%	6 32%	0.85	2	0.66
Working	21 60%	13 72%	13 68%	0.90	2	0.64
Married	33 94%	12 67%	16 84%	7.01	2	0.03*

¹ SD: standard deviation

² HRT: hormone replacement therapy

*p ≤ .05

Table 2

Psychosocial Adjustment at Enrolment for Sample A

	Calcium only (n = 35)		Continuous HRT ² (n = 18)		Cyclic HRT (n = 19)		Statistic ANOVA or Kruskal-Wallis	
	Mean	(SD) ¹	Mean	(SD)	Mean	(SD)	F(KW)	P
Health Care Orientation	6.5	(2.3)	6.8	(3.6)	6.3	(3.1)	0.32	0.73
Vocational Environment	1.8	(1.9)	1.6	(3.1)	1.5	(1.9)	(1.3)	0.53
Domestic Environment	2.1	(2.6)	2.3	(4.5)	1.5	(2.4)	(1.6)	0.45
Sex Relations	3.8	(3.3)	2.7	(2.9)	2.8	(2.5)	1.1	0.35
Extended Family Relations	1.0	(1.9)	0.7	(1.6)	0.5	(0.7)	(0.37)	0.83
Social Relations	2.4	(2.6)	2.9	(4.9)	2.4	(3.5)	(0.18)	0.91
Psychological Distress	5.0	(3.6)	4.6	(4.9)	5.4	(3.6)	0.22	0.80
TOTAL PAIS	22.3	(13.2)	21.7	(20.3)	20.4	(11.5)	(0.50)	0.61
	N	%	N	%	N	%	χ^2	P
Not Well Adjusted	6	17	2	11	2	11	0.61	0.74

¹ SD: standard deviation

² HRT: hormone replacement therapy

Changes in signs and symptoms after six months of therapy are shown in Table 4 for each of the three treatment groups. In the calcium-only group there was a perceived worsening of hot flushes, vaginal dryness, and more sleep disturbance, whereas for both HRT groups these signs and symptoms improved. It is of interest that there was some correlation between vaginal dryness and sexual interest ($r = 0.41$), feelings of optimism ($r = 0.26$) and feelings of attractiveness ($r = 0.24$). Hot flushes correlated with sleep disturbance ($r = 0.18$), while sleep disturbance correlated with feelings of well being ($r = 0.38$), optimism ($r = 0.32$), and attractiveness ($r = 0.26$). Compared to the calcium-only group, the HRT groups experienced an increase in sexual interest, breast tenderness, and bloating, in addition to feelings of optimism and attractiveness ($p < 0.05$). Correlations of psychosocial adjustment scores with symptomatology scores indicated some important non-associations: PAIS score did not correlate well with hot flushes ($r = 0.13$), vaginal dryness ($r = 0.09$), breast tenderness ($r = 0.01$) or sleep disturbance ($r = 0.03$).

Table 3

Level of Understanding of Menopause Issues at Enrolment

	Calcium		Continuous		Cyclic		Statistic	
	Mean	(SD) ¹	Mean	(SD)	Mean	(SD)	F _{2,69}	P
Hot Flushes	4.6	(1.8)	5.2	(2.1)	3.8	(1.8)	2.47	0.09
Mood Changes	4.4	(1.9)	4.3	(2.1)	4.1	(1.9)	0.17	0.84
Bone Strength	2.9	(1.8)	3.6	(2.0)	2.6	(1.8)	1.20	0.31
Safety of Estrogen	2.2	(1.8)	2.5	(1.8)	2.4	(1.4)	0.17	0.84
Need for Estrogen	2.4	(1.8)	2.9	(2.1)	3.3	(2.1)	1.45	0.24
Sexuality	4.7	(1.9)	5.0	(1.7)	4.2	(1.8)	0.89	0.42
Physical Changes	4.3	(1.8)	3.8	(2.1)	4.1	(1.8)	0.27	0.77
Diet	4.9	(1.9)	4.3	(2.3)	4.6	(1.9)	0.51	0.61
Exercise	5.4	(1.8)	5.1	(2.1)	5.4	(1.5)	0.16	0.85
Calcium	3.6	(1.9)	3.9	(2.3)	3.8	(2.1)	0.15	0.86
TOTAL SCORE	39.3	(12.3)	40.7	(14.1)	38.2	(13.0)	0.17	0.84

¹ SD: standard deviation

Scoring range: 1 = many unanswered questions; 7 = know as much as is needed

There was an 18% improvement in the total psychosocial adjustment score for all three groups combined when the baseline measure was compared with that made after 18 months of treatment (Table 5). The most significant changes were in the subscales of health care orientation, psychological distress, and social relationships. The total changes were not as great in the HRT groups as in the calcium-alone group, but the difference was not statistically significant (Table 6). This change in score did not correlate well with changes in symptoms such as hot flushes, headaches, and vaginal dryness ($r = 0.01$ to 0.10).

After 18 months of therapy the number of subjects who were not well adjusted had dropped from 10 (14%) to 6 (8%). Only in the cyclic HRT group did the number of poorly adjusted subjects fail to drop; both at baseline and after 18 months of HRT two people were poorly adjusted, although they were not the same two people.

Table 4

Change in Symptoms After Six Months of Treatment

	Calcium		Continuous		Cyclic		F _{2,69}	P
	Mean	(SD) ¹	Mean	(SD)	Mean	(SD)		
Weight Gain	+0.17	(0.6)	+0.39	(0.6)	+0.42	(0.6)	1.44	0.24
Bloating	+0.09	(0.3)	+0.17	(0.5)	+0.42	(0.5)	4.08	0.02*
Headaches	+0.09	(0.4)	+0.22	(0.4)	+0.05	(0.4)	0.99	0.38
Breast Tenderness	+0.09	(0.3)	+0.22	(0.4)	+0.42	(0.5)	4.57	0.01*
Hot Flushes	+0.40	(0.7)	-0.50	(0.7)	-0.42	(0.6)	14.6	0.00*
Vaginal Dryness	+0.31	(0.5)	-0.44	(0.7)	-0.63	(0.5)	22.8	0.00*
Appetite Alteration	0.00	(0.00)	+0.06	(0.2)	-0.05	(0.2)	1.97	0.14
Sleep Disturbance	+0.31	(0.5)	-0.17	(0.6)	-0.26	(0.7)	7.49	0.00*
Feelings of Depression	-0.14	(0.4)	-0.06	(0.2)	-0.11	(0.3)	0.45	0.65
Heavy Heart Beat or Flutter	+0.11	(0.3)	-0.11	(0.5)	+0.05	(0.2)	2.53	0.08
Sexual Interest	-0.0	(0.3)	+0.06	(0.2)	+0.32	(0.5)	8.79	0.00*
Feelings of Well Being	-0.14	(0.4)	+0.33	(0.9)	+0.32	(0.7)	2.10	0.12
Feelings of Optimism	+0.09	(0.4)	+0.33	(0.5)	+0.42	(0.5)	4.16	0.02*
Feelings of Attractiveness	0.00	(0.2)	+0.06	(0.4)	+0.26	(0.5)	3.48	0.04*
Clearer Thought Process	+0.03	(0.2)	+0.17	(0.4)	0.00	(0.3)	0.93	0.15

¹ SD: standard deviation

Scoring range: -1 = reduced; 0 = no change; +1 = increased

*p ≤ .05

Table 5***Mean Change in Psychosocial Adjustment for Three Treatment Groups After Six Months of HRT (Sample A)***

	At Enrolment		At 6 Months		Difference		Statistic	
	Mean	(SD) ¹	Mean	(SD)	Mean	(SD)	Paired t	P
Health Care Orientation	6.4	(2.8)	5.0	(2.3)	1.4	(2.9)	4.06	0.00*
Vocational Environment	1.7	(2.2)	1.5	(1.8)	0.2	(2.3)	0.65	0.51
Domestic Environment	2.0	(3.1)	1.6	(2.5)	0.4	(2.8)	1.17	0.25
Sex Relations	3.3	(3.0)	3.3	(3.1)	0.0	(3.1)	0.00	0.99
Extended Family Relations	0.8	(1.6)	0.8	(1.5)	0.0	(3.1)	0.13	0.89
Social Relations	2.5	(3.5)	1.7	(2.9)	0.8	(3.6)	1.98	0.05*
Psychological Distress	5.0	(3.9)	4.0	(4.0)	1.0	(4.0)	2.10	0.04*
TOTAL PAIS	21.6	(14.7)	17.8	(13.0)	3.8	(14.4)	2.26	0.03*

¹ SD: standard deviation

*p ≤ .05

Sample A versus Sample B

The socio-demographic and lifestyle measures of the research (Sample A) and family practice samples (Sample B) were compared. Results indicated that the latter had more cumulative menopausal years, and fewer used calcium or had a family history of osteoporosis (Table 7). There were no statistically significant differences between the two samples in the PAIS subscale and total scores (Table 8). Four (11%) of the family practice group were not adjusting well to menopause. Both groups of women had the PAIS subscales ranked in precisely the same order of adjustment.

Table 6

Changes in Psychosocial Adjustment Scores After 18 Months of Treatment (Sample A)

	Calcium (n = 35)	Continuous (n = 18)	Cyclic (n = 19)	Statistic ANOVA or Kruskal-Wallis	
	Mean (SD) ¹	Mean (SD)	Mean (SD)	F(KW)	P
Health Care Orientation	1.2 (2.6)	1.7 (4.3)	1.4 (2.1)	(0.09)	0.95
Vocational Environment	0.1 (1.7)	0.5 (3.4)	-0.5 (2.2)	(0.63)	0.73
Domestic Environment	0.4 (2.1)	1.3 (4.3)	-0.5 (2.1)	(1.56)	0.46
Sex Relations	0.7 (3.1)	-0.6 (2.4)	-0.7 (3.4)	1.8	0.18
Extended Family Relations	0.2 (1.8)	0.3 (1.8)	-0.6 (1.6)	1.9	0.16
Social Relations	0.9 (3.3)	0.7 (5.1)	0.7 (2.3)	(1.26)	0.53
Psychological Distress	1.1 (2.8)	0.1 (6.5)	1.7 (2.9)	(4.7)	0.10
TOTAL PAIS	4.7 (11.6)	4.1 (22.8)	1.9 (8.4)	(2.7)	0.26

¹ SD: standard deviation

Women in Sample B indicated that they did not have many unanswered questions and thought they had a high level of understanding of menopausal issues (Table 9). Differences were detected between sample groups in all areas except questions concerning estrogen, diet and exercise.

Sample B indicated they were more comfortable than Sample A in discussing menopausal concerns with their physician. Although many women from both groups indicated they found books a useful resource, more women from the family practice clinic indicated that their physician was a useful source of information about menopause.

Table 7

Demographic Variables of Samples A and B

	SAMPLE A		SAMPLE B		t	p
	Mean	(SD) ¹	Mean	(SD)		
Age	54.1	(3.2)	55.4	(2.8)	2.17	0.03*
Years Since Last Menstrual Period	2.7	(1.9)	5.1	(3.0)	5.16	0.01*
Number of Children	2.6	(1.5)	2.3	(1.3)	1.21	0.23
Coffee/Day	2.7	(2.1)	2.8	(2.3)	0.03	0.97
Alcohol Drinks/Week	3.0	(2.6)	2.8	(4.1)	0.76	0.45
	N	%	N	%	χ^2	p
Used Calcium	27	38	5	14	6.78	0.01*
Working	47	65	26	70	0.28	0.60
Previous Fracture	21	29	5	14	3.30	0.07
Hysterectomy	9	13	6	16	0.28	0.59
History of Osteoporosis	32	44	4	11	12.50	0.01*
Married	61	85	26	70	3.17	0.08
Smoker	6	8	6	16	1.55	0.21

¹ SD: standard deviation

*p ≤ .05

Table 8
PAIS Scores of Samples A and B

	SAMPLE A		SAMPLE B		t	p
	Mean	(SD) ¹	Mean	(SD)		
Health Care Orientation	6.4	(2.8)	6.6	(4.0)	0.37	0.71
Vocational Relations	1.7	(2.2)	1.1	(1.8)	1.23	0.22
Domestic Relations	2.0	(3.1)	1.4	(2.7)	1.99	0.33
Sexual Relations	3.3	(3.0)	2.5	(2.7)	1.37	0.17
Extended Family Relations	0.8	(1.6)	0.5	(1.6)	0.78	0.44
Social Relations	2.5	(3.5)	1.6	(3.1)	1.29	0.20
Psychological Distress	5.0	(3.9)	4.4	(3.7)	0.82	0.41

¹ SD: standard deviation

Table 9
Comparison of Level of Understanding of Menopause Issues

	SAMPLE A		SAMPLE B		t	p
	Mean	(SD) ¹	Mean	(SD)		
Hot Flushes	4.5	(1.9)	5.2	(2.1)	1.66	0.10
Mood Changes	4.3	(1.9)	5.0	(2.1)	1.70	0.09
Bone Strength	3.0	(1.9)	4.2	(2.5)	2.60	0.01*
Safety of Estrogen	2.3	(1.7)	3.3	(2.5)	2.05	0.04*
Need for Estrogen	2.8	(1.8)	3.4	(2.8)	1.24	0.22
Sexuality	4.6	(1.8)	5.5	(2.0)	2.40	0.02*
Physical Changes	4.1	(1.9)	4.9	(2.2)	1.95	0.05*
Diet	4.6	(2.0)	5.2	(2.3)	1.29	0.20
Exercise	5.3	(1.8)	5.4	(2.2)	0.08	0.94
Calcium	3.8	(2.0)	5.0	(2.4)	2.87	0.01*
TOTAL LEVEL (10-70)	39.4	(12.8)	47.0	(17.0)	2.37	0.02*

¹ SD: standard deviation
 Scoring range: 1 = many unanswered questions; 7 = know as much as is needed
 *p ≤ .05

Discussion

This study has shown that approximately 14% of women were not adjusting well to menopause. They had many concerns about health care issues and difficulties in their sexual relationships. They experienced such psychological distress as anxiety, nervousness, anger, and body image difficulties. However, the majority of women were adjusting well to menopause and coping well with psychosocial issues at this time of their lives.

These results were obtained from a volunteer sample of women and our conclusions may be biased by the volunteer effect. That is, we may inadvertently have selected women for Sample A who were particularly sensitive to the problems of adjustment to menopause, whose questions were not answered and needs were un-met by family physicians. It was thought that by studying another non-volunteer sample of menopausal women, any bias in our volunteer sample might be detected. Nevertheless, although the two samples had different levels of understanding of menopausal issues, they exhibited comparable degrees of psychosocial adjustment to menopause. On average, all women in Sample A experienced an improvement in psychosocial adjustment, with the greatest change occurring in the health care orientation subscale.

Calcium supplementation (which was not expected to influence psychosocial adjustment) and both HRT regimes, along with counselling, appeared to improve quality of life. Of importance is the fact that there was no difference in change of psychosocial adjustment between calcium-alone or calcium-plus-HRT groups. It is reasonable to conclude that involvement in a research program that focused on menopause-related concerns led directly to the observed improvement in psychosocial adjustment. Subjects felt comfortable discussing such concerns with health professionals and found written material useful. Consequently, it would be useful to provide peri-menopausal women with better access to counselling services and reliable documentation concerning menopause. Hormone replacement therapy may not be the panacea for all quality of life issues, and individual counselling may be a more important factor in assisting women with psychosocial issues during menopause.

Future research should examine the effect of different counselling methods for peri-menopausal women in conjunction with medical therapies. One method for improving psychosocial adjustment that could be examined is cognitive behavioural or problem-solving therapy.

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RÉSUMÉ

Adaptation psychosociale des femmes post-ménopausiques

La ménopause est un événement marquant aux niveaux socio-culturel, psychologique et physiologique pour les femmes dans la quarantaine. La fréquence d'un déséquilibre psychosocial face à la ménopause et l'effet d'un traitement hormono-supplétif (HRT) sur les femmes sont abordés ici. Soixante-douze femmes reçurent un apport complémentaire de calcium pendant six mois. Elles choisirent ensuite de continuer à prendre le calcium seul ou avec le traitement hormono-supplétif. Les sujets qui prenaient le traitement hormono-supplétif furent répartis au hasard afin de recevoir sans interruption 0,3 mg de Prémarine et 2,5 mg de Provera, ou 0,625 mg de Prémarine (du 1^{er} au 25^e jour) et 5 mg de Provera (du 16^e au 25^e jour). Les facteurs psychosociaux furent enregistrés au début, puis après 18 mois de traitement. Les trois groupes furent conseillés individuellement au sujet de la ménopause par un médecin et par l'assistant de recherche. Tous les groupes eurent une meilleure adaptation psychosociale à la ménopause pendant la période de traitement de 18 mois, et aucune différence significative ne fut notée d'un point de vue statistique entre les groupes. Trente-sept femmes ménopausées qui ne prenaient pas le traitement hormono-supplétif furent recrutées dans un cabinet de consultation de famille et on leur a demandé de remplir les mêmes questionnaires que les trois groupes sous traitement. Il n'apparut pas de différence significative d'un point de vue statistique au niveau de l'adaptation psychosociale entre les sujets qui avaient pris le traitement hormono-supplétif et les femmes qui ne l'avaient pas pris.

A PROFILE OF PART-TIME FACULTY IN CANADIAN UNIVERSITY NURSING PROGRAMMES

Doreen Westera

Part-time workers in Canada are predominantly women. In 1988, 70% of part-time workers and 43% of all workers in Canada were female (Statistics Canada, 1988). Within Canadian university environments women are more likely than men to become and remain part-time academics (Lundy & Warne, 1990). To date, few Canadian studies have evaluated the status of faculty members. Ahmed (1989) reported on a McMaster University survey of the part-time faculty there. He also refers to two studies in his article, conducted in Saskatchewan and Alberta. Lundy and Warne (1990) reported on studies of part-time faculty at York University in 1983 and again in 1988. The author knows of no study which focused solely on female part-time academics.

A significant proportion of faculty members in Canadian university nursing programmes are part-time, and the majority are employed on a permanent or occasional basis (CAUSN Faculty Profile, 1987). It would seem reasonable to expect the employment of part-time faculty to continue, and perhaps increase, as university nursing programmes face fiscal restraints and women increasingly seek work arrangements that are more conducive to combining family and career.

The issue of part-time employment of nurse educators has not been extensively reported on in the literature. Bower, Fairchild, Hawkins, and Koundakjian (1980) addressed the responsibilities, opportunities, and employment terms of part-time nursing faculty. Hawkins, Bower, Fairchild, Koundakjian, and Simon (1987) conducted a study of role perceptions of part-time BSN faculty. Feldman and Keidel (1987) reported on the satisfactions and dissatisfactions, concluding that although part-time teaching allowed time for other pursuits, it lacked the compensation and benefits of full-time employment. Jackson (1988) suggested policies to accommodate this growing sub-group in nursing education. To the author's knowledge, these four American references comprise the most

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extensive reporting on part-time nursing faculty members. The author's own experience as a part-time nursing faculty member and the apparent lack of Canadian reports on this subject prompted the current study.

Purpose

The purpose of this research was to develop a profile of part-time faculty in Canadian university nursing programmes, focusing primarily on individuals' perceptions of their part-time role.

Research Questions

The specific questions addressed were as follows:

What are the characteristics of part-time nursing faculty?

What perceptions do part-time faculty have of their job responsibilities, security, and benefits?

What job satisfactions and/or dissatisfactions do part-time faculty have?

Method

This study is a replication of that conducted by Hawkins et al. (1987). The author wrote to all deans and directors of the 27 Canadian university nursing programmes to describe the study and invite them to participate. As these deans/directors responded, appropriate numbers of questionnaires were sent to the participating institutions for distribution to their part-time faculty. Data were collected in the spring of 1989. To ensure anonymity, questionnaires were not coded nor was the responder identifiable in any way.

All part-time faculty members from nursing programmes who agreed to participate in the study were included in the sample. The author classified as "part-time" those individuals who the school or faculty in question regarded as part-time, a definition consistent with that of the Canadian Association of University Schools of Nursing.

The questionnaire used in this study was the same as that used by Hawkins et al. (1987), and was comprised of four parts. Section A was designed to determine the reasons for faculty choosing part-time employment. Section B consisted of 16 statements on job responsibilities, security, and benefits. Respondents were asked to complete a Likert-type scale indicating their degree of agreement on each of these statements. Section C was composed of 20 items describing different kinds of opportunities a part-time position might offer.

Respondents were again asked to complete a Likert-type scale indicating their degree of satisfaction with these job characteristics. Section D included 16 items designed to provide demographic information.

The reliability of this research tool was as follows: Cronbach's alpha 0.86; standardized alpha 0.86 for the satisfaction scale. A panel of experts (part-time faculty not included in the sample) was used to determine face and content validity of the tool.

Results

Of the 27 deans/directors approached, 18 agreed to participate in the study (67%). A total of 221 questionnaires were mailed to the participating institutions; 60 were completed and returned by part-time faculty (27%).

The questionnaire completed by deans/directors established that all schools and faculties participating in the study employed part-time faculty members, with the possible exception of one, which stated it "occasionally" did so. The mean number of full-time faculty per school was 21; and part-time, 13.

The sample of 60 part-time respondents had spent a mean number of 4.6 years in their current positions, with a range of 0-23 years. They had been practicing for an average of 13 years (range 0-35), with a mean of 1.8 years of stop-out time for family. Eighty-three percent were employed part-time by choice. The reasons for working part-time are in Table 1. "Family obligations" headed the list (53%). As one respondent stated, "I enjoy my part-time appointment immensely. It allows me to be at home with my young children 2 1/2 days a week." Another person echoed this sentiment: "The university has offered me the flexibility to meet family and personal work/development needs." Both of these respondents voiced a common theme that saw part-time employment as a temporary arrangement while their children were young.

Of the 60 faculty respondents, 85% were married. The mean number of children living at home per respondent was 1.4 with a range of 0-5; 65% of parents had 0-2 children in the preschool age range. Thirty-two percent reported no children living at home. The average age of the part-time faculty members was 39 years, with a range of 25-56. Fifty-seven percent listed a baccalaureate in nursing as their highest degree; 41% had master's degrees in either nursing or education; 2% had doctoral degrees. Sixty-five percent were at the level of lecturer or clinical instructor, and 93% were not in tenure track positions.

Three-quarters of the part-time faculty in the sample were responsible for 50% or more of a full-time workload (Table 2). The majority (68%) worked as part of a team. Their specific responsibilities are in Table 3. The mean salary for respondents (n = 54) was \$20,719 with a range of \$700 to \$58,000. Seventy

Table 1

Reasons for Accepting Part-time Faculty Employment (n = 60)

Reason	Percentage
Family obligations	53
Interest in part-time career only	40
Need for supplemental income	28
Involvement in another professional position	25
Interest in trying out teaching without a major career commitment	25
Involvement in clinical practice	20
Full-time position not available	17
Insufficient educational preparation for full-time position	12
Pursuit of advanced degree	12
Need for teaching experience as a prerequisite for a full-time position	3
Postponement of probation period toward tenure	2
Other	8

Table 2

Percentage of Full-time Work Load Reported by Part-time Faculty (n = 57)

% of Full-time Work Load	Part-time Faculty (%)
0 - 24	0
25 - 49	25
50 - 74	46
75 - 99	23

percent of individuals received 0-24% of full-time fringe benefits; 17% obtained 25-49%; 6% received 50-99%; and 7% received full benefits (n = 54).

Faculty members' opinions about their part-time teaching experiences are in Table 4. Items examined were perceptions of salary, job security, opportunities to learn and advance, freedom, and workload. Over 75% of respondents stated they should have similar responsibilities and benefits to full-time faculty, with respect to teaching and scholarly work (items 1, 2, 11, 12, 14, 15, and 16 in

Table 3

Responsibilities of Part-time Faculty (n = 60)

Responsibility	Percent
Clinical Supervision	87
Student Advisement	77
Attend Faculty/School Meetings	75
Classroom Teaching	65
Attend Professional Meetings	33
Own Clinical Practice	17
Publishing	13
Community Service	13
Research	10

Table 4). Fifty-eight percent believed they should serve on committees in their school or faculty. One respondent commented that she "...would like to become more involved on committees and decision-making...but I am the exception — many of my co-workers (part-time) expect or demand remuneration for attending meetings." Several respondents commented on the difficulties of trying to attend committee meetings scheduled on their non-working days. Eighty-four percent agreed there was little job security; seven respondents expressed frustration with this. Although 75% of respondents felt that part of their job satisfaction came from working with colleagues (item 8 in Table 4), 25% felt "looked down on," "unappreciated," "exploited," or "abused" by their colleagues. However, 85% felt that part-time faculty have a positive effect on the quality of education. This tension between perceived response from the faculty and pride in their work was illustrated in such comments as: "I love clinical nursing and patient contact and interaction...I feel my job as a clinical instructor is not highly recognized although it remains the basis of the nursing pyramid"; "I feel that people who *choose* part-time work make as good if not better employees, because they are giving their all on the days they work and really enjoying it...I do feel part-time faculty are looked down on (by full-time faculty)..."; "I feel part-time faculty are used and not appreciated or acknowledged for their contribution to student education"; "At times, full-time staff give the impression that clinical experience is less significant than the hours spent in the lecture halls. However, students feel they are truly 'nursing' through their hands-on work...teaching [of this nature] is very rewarding and challenging."

Table 4

Faculty Opinions (%) of the Part-time Teaching Role (n = 60)

	STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE	NOT APPLICABLE
1. I should be involved in test construction.	25	47	3	15	2	8
2. I should be involved in determining course content for the courses I am teaching.	43	38	5	10	0	3
3. I am more vulnerable to administrative direction and decisions than my full-time colleagues.	20	24	19	27	9	2
4. I am less able than my full-time colleagues to make demands in terms of size of class or clinical groups.	17	35	7	35	3	3
5. My present position offers little job security.	59	25	5	9	0	2
6. I have had little orientation or in-service preparation for my position.	30	32	0	25	10	3
7. I am interested in participating in governance on a faculty/ school of nursing and/or university level.	14	12	36	29	3	7
8. Part of my job satisfaction comes from association with faculty colleagues.	22	53	2	18	5	0
9. Part-time faculty have a positive effect on the quality of education.	32	53	12	3	0	0
10. As a part-time faculty person, I carry a comparatively heavy teaching load with regard to contact hours.	27	37	5	30	2	0
11. My part-time faculty salary should be at the same rate as that of full-time faculty.	40	38	13	7	2	0
12. I feel that I should get fringe benefits along with my other pay.	42	46	3	5	2	2
13. As a part-time faculty person, I feel that part of my job description should be to serve on faculty/school of nursing committees.	15	43	20	18	3	0
14. I should have a vote in faculty/ school of nursing committees and meetings.	23	55	12	8	2	0
15. I should accrue time toward tenure.	25	50	10	13	2	0
16. I should be allowed to advance in rank.	32	57	7	3	0	2

Faculty were also asked to indicate their degree of satisfaction with various job characteristics in their current position, using a Likert-type scale (Table 5). Respondents appeared to be most satisfied with their collegial relationships, the opportunity to fully use their knowledge and skills, the ability to build a professional reputation, and with the freedom/flexibility in their role. They seemed least satisfied with job benefits (items 2, 4, 16, 17) and opportunities for professional growth. One faculty member wrote, "It was my choice to transfer to part-time work (family responsibilities) — this certainly put a 'cap' on my progress through the academic ranks." Another said, "Part-time allows for little or no career planning. It appears to suit the needs of the university but short-changes it as well because part-time faculty tend to do their work and do not have time for the scholarly activities which would add to the faculty as a whole." Still another respondent commented: "My main frustration is that I cannot advance...as a part-time faculty member I am not eligible for tenure."

Comparison to Original Study

In the study conducted by Hawkins et al. (1987) on part-time faculty in the United States, 193 of the possible 380 baccalaureate nursing programmes in that country agreed to participate in the study. From a sample of 800 part-time faculty, 526 returned questionnaires (66% response rate). In the present study, 18 of the 27 university nursing programmes in Canada agreed to participate. From a sample of 221 part-time faculty, 60 returned questionnaires (27% response rate).

With the above disparity in response rates in mind, some highlights of the comparison between the two studies can be made. In both studies, respondents were similar in age, marital status, mean number of children, average number of years nursing practice, mean stop-out time from career for family reasons, and the percentage of full-time workload for which they were responsible. The American respondents had been in their current positions longer than the Canadians had (mean of 4.6 years compared to 2.9), and had a lower average yearly salary (\$8,962 compared to \$20,710). For both groups, the percentage of full-time fringe benefits was similar at both ends of the scale (100% and less than 25% of full-time benefits), but more Canadian respondents received 25-49% of full-time fringe benefits.

With respect to faculty opinions about their part-time teaching experiences, both groups felt that they should have teaching and scholarly work responsibilities and benefits similar to full-time faculty. However, a larger number of Canadian respondents felt strongly about having equality with full-time faculty salary scales and fringe benefits. Fewer American faculty stated that they should serve on committees in their school or faculty, (49% compared to 58%), and fewer agreed that they had little job security (70% compared to 84%). Although both groups strongly agreed that part of their job satisfaction came from working

Table 5

Faculty Perceptions (%) of Job Satisfaction Criteria (n = 60)

	VERY SATISFIED	SATISFIED	UNDECIDED/NEUTRAL	DISSATISFIED	VERY DISSATISFIED	NOT APPLICABLE
1. To advance myself in my chosen career.	2	53	7	25	12	2
2. To earn the salary I feel I deserve	3	33	10	35	15	3
3. To work with colleagues who share my goals and beliefs.	10	65	7	17	2	0
4. To feel secure from layoffs.	0	12	20	27	37	5
5. To grow and gain new knowledge and skills through faculty development programs.	8	33	10	42	7	0
6. To have an opportunity for further education.	3	28	20	32	10	7
7. To work no harder than is comfortable for my life style.	3	39	30	10	10	7
8. To have a position with status.	2	52	23	0	17	7
9. To be able to deal with important social issues in nursing.	3	45	23	27	0	2
10. To enhance my professional growth and development.	8	55	7	28	2	0
11. To make full use of my present knowledge and skills.	15	56	7	19	3	0
12. To have freedom to carry out my own ideas.	5	60	8	25	2	0
13. To build up my professional reputation.	8	63	8	18	2	0
14. To work for people whose professional judgment and ability I respect.	12	60	15	12	2	0
15. To have a ranked faculty position.	3	22	18	28	15	13
16. To accrue time toward promotion in rank and/or tenure.	0	5	12	42	25	17
17. To receive fringe benefits.	2	14	9	48	20	9
18. To be appreciated for the contributions I make to the nursing program.	10	38	15	23	12	2
19. To publish and do research.	0	22	21	33	9	16
20. To work the number of hours I work each week.	11	56	7	9	12	5

with colleagues, more American faculty agreed with this statement (89% compared to 75%). Similar proportions of Canadians and Americans felt that part-time faculty have a positive effect on the quality of education. More Canadians felt that they had less power than their full-time colleagues to control the size of classes or clinical groups (52% compared to 41%); but significantly fewer were interested in participating in faculty or school governance (25% compared to 41%), a potential avenue for increasing their power base.

According to job satisfaction criteria, American faculty expressed overall higher levels of satisfaction with their current positions. Job characteristics giving highest satisfaction were the same for both groups (collegial relationships, using knowledge and skill, enhancing professional reputation, and flexibility). Both groups were least satisfied with their job benefits. Canadian faculty felt more dissatisfied with opportunities for professional growth.

Discussion

This is a preliminary study and, as with any survey design, it has accompanying limitations. Obtaining the data via a written questionnaire did not allow for intensive probing and analysis, both of which would have been desirable.

It is interesting to note that 83% of individuals in this study voluntarily chose part-time work, probably in part due to family obligations. "Family obligations" was the most commonly cited reason (53%) for accepting to work part-time. One can predict that this will become an increasingly important reason for choosing a part-time career, not only to allow for the care of children, but also aging parents. However, between 12 and 25% of respondents were also committed to other professional activities (clinical practice, other job, pursuing an advanced degree). Seventeen percent indicated that at least one reason they were working part-time was because there were no full-time positions available. Given that the funds for Canadian universities are currently dwindling, it can be expected that this percentage will increase. This raises the issue of voluntary versus involuntary part-time employment. Lundy and Warne (1990) reported that whether or not one is voluntarily a part-time faculty member has a strong impact on job satisfaction.

Part-time faculty contribute significantly to the education of nurses in Canadian university programmes. Three-quarters of the part-time faculty in this study were responsible for 50% or more of the workload of a full-time faculty member. Most part-time faculty were in unranked positions, indicated that a baccalaureate was their highest degree, had clinical supervision as their major responsibility (although the majority did some classroom teaching), and received a lower salary proportionate to the workload with virtually no fringe benefits. Few conducted research or published. Many respondents were dissatisfied with several aspects of their positions, notably: an insufficient salary, and

the lack of job security, opportunities to grow and advance in their careers, fringe benefits, and opportunities to publish and do research.

There are sure to be both short- and long-term effects of having much of the teaching of future nurses done by dissatisfied faculty who have insufficient academic qualifications (in terms of what is normally expected in a university setting). Franklin (1988) described part-time employment in academic settings as "a short-sighted management practice." Hartleb and Vilter (1986) supported this view. On the other hand, Leslie (1989) argued that in some cases a program is strengthened by having part-time faculty. Respondents in the study by Lundy and Warne (1990) felt that part-time faculty injected "new blood" and good teachers into the program. Students were seen to gain by contact with those who were out there in "the real world," and this contact strengthened ties between the university and the community. Munsey (1986) wrote that some hiring of part-time faculty could potentially strengthen a program by increasing the scope of course offerings. It can be argued that part-time, baccalaureate level faculty who are close to the real world of nursing in a clinical sense can actually contribute more to a student's knowledge of clinical nursing than an academically well-accredited faculty member who has not been clinically active. Lundy and Warne (1989) found that students were indifferent to the official status of their professors. McGaughey (1985) maintains that knowledge base, communication ability, and commitment to and motivation for teaching are the key issues in having quality instruction, not whether a faculty member is full-time or part-time. McGaughey's findings raise the issue of faculty evaluation: full-time, tenure-track faculty undergo vigorous evaluation when they apply for tenure and promotion, but part-time faculty do not.

Perhaps the key to dealing with many of the above issues is in team work. Given that most part-time faculty work as part of a team, their particular strengths can be merged with those of full-time faculty (e.g. in research) to provide a quality "package" of instruction for future nurses.

A further issue raised by this study is the exploitation of part-time faculty. Many commented that they receive negative feedback from their full-time colleagues, and most were grappling with inequities in many job areas. Abuse of part-time faculty has been discussed by several authors (Ahmed, 1989; Franklin, 1988; Gordon, 1987). Lundy and Warne (1990) stated that part-time faculty are on the periphery of the professorate, as witnessed by the lack of discussion about them in a major 1984 report on Canadian Universities, *To Know Ourselves: The Report of the Commission on Canadian Studies*. Breslauer (1985) maintains it is difficult to prove that part-time faculty, who are mostly women, are indeed disadvantaged because there are insufficient data on female academics. Despite the fact that part-time hiring is on the increase (Ahmed, 1989), universities do not submit such data to Statistics Canada regarding the relevant numbers, location, rank, or fields (Lundy & Warne, 1990). As long as

there is no profile of part-time faculty, it will be difficult to develop policies, conditions, or standards to deal with their exploitation and abuse. Vaughan (1986) maintains that part-time faculty tend to be more subservient to the whims of administrators; the impetus for change may therefore not come from them. However, in 1987 the Canadian Union of Educational Workers sponsored the first Canadian conference on part-time teaching in the university. At the conference much frustration was expressed by part-time faculty and it was made clear that there is a need to grapple more forcefully with issues such as pay equity, fair procedures, and academic freedom (Gordon, 1987).

Recommendations for Further Study

This survey attempted to construct a profile of part-time faculty in Canadian university nursing programmes. The findings point to the need for further study, including the following:

An in-depth study of part-time faculty in university nursing programmes should be organized on a national level, but carried out independently at each university. This would identify university guidelines or contractual obligations related to the appointment of part-time nursing faculty and issues that part-time faculty share nationally. Students, administrators, unions, and full- and part-time faculty should be included. Such a study would allow for policies, conditions, and standards to be developed for a given university, as each institution would have different goals, needs, and priorities.

Each nursing program should carefully examine how it is strengthened and weakened by part-time faculty. A concerted effort should be made to diminish the factors that weaken the program (e.g. carefully plan team work at the program and course levels).

A study comparing the faculty who work part-time voluntarily and those who do so involuntarily could identify how these two groups impact on the program and the faculty environment in general. Recommendations may not be the same for both groups.

A study examining the workloads of part-time faculty is in order. It would be important to discover whether they have adequate time for course preparation and whether there is a workload inequity between full- and part-time faculty. Excessive workloads could cause them to look elsewhere for more manageable employment, with subsequent loss by the university of their expertise.

CONCLUSION

Canadian universities can no longer ignore the growing presence of part-time faculty, and university nursing programmes must look at the impact of part-time faculty on the quality and outcome of their programmes. Nursing, unlike some university programmes, has a competency-based, outcome-oriented curriculum. It is important to know whether the use of part-time faculty, particularly if they are not permanent, causes major disruption to the program as a whole. How many university nursing programmes appoint part-time or sessional faculty at the last minute, and what are the results? Since part-time faculty members will probably continue to be part of university nursing programmes, there must be a concerted effort to integrate them into the life of the program. Integration is also essential for part-time faculty members themselves, so that they will feel valued, respected, and important to the programme. Part-time faculty members must discuss the issues involved among themselves and with their full-time counterparts. Further study is needed. All of these efforts will help to meet the needs of part-time faculty and their institutions. This important sector of the nursing faculty must be acknowledged and dealt with if we are to maintain and improve the quality of education of future nurses.

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RÉSUMÉ

Portrait du professeur de faculté enseignant à mi-temps dans les programmes en sciences infirmières des universités canadiennes

Cet article fournit des données élémentaires sur les professeurs des facultés en sciences infirmières qui enseignent à mi-temps dans les programmes en sciences infirmières des universités canadiennes. Soixante enseignants de la faculté travaillant à mi-temps ont rempli un questionnaire où ils ont noté leurs responsabilités, les possibilités d'avancement, leurs périodes d'emploi, la perception de leur rôle et leur satisfaction ou leur mécontentement. La plupart d'entre eux étaient employés à mi-temps par choix, surtout pour des raisons familiales. La responsabilité principale de ces enseignants consistait à superviser les étudiants d'un point de vue clinique. Néanmoins, la plupart d'entre eux pensaient qu'ils devraient avoir des responsabilités d'enseignement identiques à celles des enseignants à plein temps. Les personnes interrogées semblaient tout à fait satisfaites de leurs relations collégiales, de leur contribution professionnelle et de la flexibilité dans leur travail. Les avantages sociaux et les possibilités d'avancement étaient les points qui les satisfaisaient le moins.

Cette étude montre que les professeurs de facultés qui enseignent à mi-temps et qui ont été interrogés participent de façon significative à la formation des infirmiers et infirmières dans les programmes universitaires canadiens. Une recherche complémentaire doit s'attacher à l'apport des enseignants des facultés travaillant à mi-temps sur la qualité et les résultats des programmes en sciences infirmières. On doit également prêter attention aux politiques, aux normes et aux conditions qui visent à la satisfaction des besoins des enseignants des facultés travaillant à mi-temps et de leurs institutions. Ces démarches doivent contribuer à garantir le maintien et l'amélioration de la qualité de l'enseignement dispensé aux futurs infirmiers et infirmières.

THE NURSING PERFORMANCE OF PRECEPTED AND NON-PRECEPTED BACCALAUREATE NURSING STUDENTS

Olive Yonge and Lorraine Trojan

In the 1960s professors who taught nursing began experimenting with preceptorship as a method of teaching clinical nursing skills. Until that time students were taught in small groups of eight to 12, usually during the day shift, in a health care facility within driving distance of the educational institution. Using a preceptorship method, one student (preceptee) is placed with one experienced nurse (preceptor), works any shift, and theoretically may undergo preceptorship in any health care facility in Canada. Students who have undergone preceptorship have cited many advantages: the teaching is individualized; there is more feedback, independence, self-confidence, and support; other health care staff are more accepting of the student, and it is less stressful. The disadvantages are that there are no post-conferences, students work 12-hour shifts, and the preceptor may have insufficient knowledge in physiology and anatomy.

At the University of Alberta, preceptorship was introduced in 1985 to the third year baccalaureate nursing students who are required to take a compulsory six-week spring session course entitled "Nursing 464 - Nursing of Clients with Health Deviations." It is an intense course, offering students the chance to care for "individuals and/or groups with complex behavioural" and "organic deviations." Students are advised not to take other courses concurrently. The major thrust of the course is for the nursing student to consolidate clinical nursing skills and to integrate theoretical and practical knowledge.

Prior to 1985, students completed Nursing 464 in Edmonton and were taught in small groups of eight by a Faculty of Nursing professor. With the introduction of preceptorship, students requested placements in small rural hospitals in Alberta, in speciality areas (e.g, emergency, neonatal intensive care), and in the Yukon and Northwest Territories. Since this course was a six-week block scheduled for completion at the end of the third year, the students quickly took

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advantage of a unique opportunity and requested placements that, until then, had been unavailable to them.

Research questions

Clearly, the preceptorship method of teaching provides students in Nursing 464 with an opportunity to learn skills in various clinical settings, but is the nursing performance of such students different than if they had been taught in small groups? Do the students acquire satisfactory nursing skills regardless of the method of instruction? Since faculty members may arrange a preceptorship hundreds of miles away from the university, they may never see the preceptor and have no method of directly assessing the student's performance. Therefore, this study was designed to obtain information about the validity of the preceptorship experience. The specific research question was: What is the difference between the nursing performance of preceptored and non-preceptored baccalaureate nursing students as noted by students themselves, the preceptors and professors?

Literature Review

There have been seven publications describing the effect of preceptorship on baccalaureate nursing students (Bashoff, 1988; Clayton, Broome, & Ellis, 1989; Dobbs, 1988; Infante, Forbes, Houldin, & Naylor, 1989; Itano, Warren, & Ishida, 1987; Myrick & Awrey, 1988; Scheetz, 1989). Clayton et al. (1989) and Scheetz (1989) both reported positive effects of preceptorship. Clayton et al. (1989) assessed preceptored and non-preceptored baccalaureate students using Schwirian's Six Dimension Scale of Nursing Performance and found that at a six-month follow-up, the preceptored group scored significantly higher on four of the six subscales: leadership, teaching/collaboration, interpersonal relations and communications, and planning and evaluation. Scheetz (1989) compared the clinical competence of baccalaureate students who underwent preceptorship and those working as nursing assistants during a summer work program, and found that the preceptored students showed significantly greater clinical competence.

In two studies, Corwin's Nursing Role Conception Scale was used to examine the effects of preceptorship on baccalaureate students. Dobbs (1988) found that students felt less role deprivation after their preceptorship experience. Itano et al. (1987) found no difference between students who had experienced preceptorship and those who experienced a traditional program. Since the two studies looked at role conception at different times in the student's program, it is difficult to compare the two, and they do not necessarily contradict each other. Another study completed by Myrick and Awrey (1988) compared seven preceptored and five non-preceptored fourth-year nursing students using the Six

Dimensional Scale of Nursing Performance (6-D Scale) and Slater Nursing Competencies Rating Scale. They found that the preceptored students had a more positive view of their performance and the non-preceptored students engaged in more planning and evaluative behaviours as rated by their teachers.

If sufficient research on preceptorship demonstrates that it is as or more effective than traditional instruction, this will have implications for curriculum design and financial management. If the entire Nursing 464 course was preceptored, the cost of the course would be halved since only half of the current quota of professors would be needed to coordinate the preceptorship experiences. At the University of Alberta this would be an approximate saving of \$25,000 per year. Advantages of conducting this study at the University of Alberta include the availability of a large sample size and the opportunity to repeat this study in successive years.

Method

The study design was quasi-experimental, using a non-preceptored group and preceptored group. Random assignment was not possible because the students had already selected their clinical agency, and depending on their selection, underwent preceptorship or traditional training. As a means of comparing the two groups the students were asked to fill out a brief demographic section indicating age, gender, whether they had a rural or urban placement, and estimated grade point average in the third year. Of the 74-member class, 71 consented to participate: 38 students were preceptored and 33 received non-preceptored teaching. The study involved three professors and 33 preceptors.

Definition of Terms

Preceptor: A registered nurse who is an expert practitioner and is willing to teach a baccalaureate nursing student in the clinical area for a three- or six-week period.

Preceptee: A third-year nursing student who registered in Nursing 464 and chose to be taught by a registered nurse rather than a professor.

Instrument

The Six Dimensional Scale of Nursing Performance (6-D Scale), is composed of 52 items grouped into six performance subscales: leadership (five items); critical care (seven items); teaching/collaboration (11 items); planning/evaluations (seven items); interpersonal relations and communications (12 items); and professional development (10 items) (Schwirian, 1978). The 52 items were the end result of extensive pilot testing and factor analysis. Internal consistency reliability scores, using coefficient alpha, range from 0.84

for the leadership/employer subscale to 0.98 for the professional development/self subscale (Ibid). Content validity was addressed by obtaining consensus among the instrument developers, consultants, and pilot respondents as to what were positive nursing behaviours. Concurrent and predictive validity were tested. That is, nurses were asked to appraise their own performance, and their supervisors evaluated them and also predicted who would be the "high performers." It was previously shown that nurses who scored highest on all [*sic*] subscales also were rated as the most promising by their employers. Permission to use this instrument was obtained.

Procedure

Data were collected on the first day of clinical practice (pre-clinical) and on the last day (post-clinical), when students were asked to rate their performance on the 6-D Scale. The instructors and preceptors were asked to rate the students using the 6-D Scale during the last clinical week. Accordingly, the following non-preceptored students received questionnaires: eight students in psychiatry (six-week placement), eight in pediatrics (three-week placement), and 17 in surgery (three-week placement). The preceptored students who received questionnaires included: eight in psychiatry (three-week placement), seven in medicine (three-week placement), four in obstetrics (three-week placement), and 19 in hospitals or clinics outside of Edmonton (six of which were six-week placements). The professors and preceptors also received questionnaires at the end of the placements.

All data pertaining to preceptorship were collected through the mail and subjects were provided with stamped, addressed envelopes to increase the response rate; data from the non-preceptored groups were collected in person. Although the course was six weeks in length, the students were able to choose two three-week sections in two different sites. To control for bias and equalize the two groups of students, testing was conducted in the first three weeks or over the full six weeks. Bias would have occurred because some students changed clinical areas or type of teaching (preceptored or non-preceptored) after the first three weeks.

Setting

All non-preceptored training sites were in large, acute care teaching hospitals in Edmonton, Alberta. Preceptorship sites were in the same institutions as the traditional training sites as well as in rural Alberta, the Yukon, and the Northwest Territories. There were a total of 19 non-preceptored students and three preceptored students in Edmonton, compared with six preceptored students outside of Edmonton.

Results

In the preceptored group a complete set of data was obtained for only nine students (9/38) in comparison with 19 students (19/33) in the non-preceptored group. The mean age of the students who returned their questionnaires was 22.6 years for the preceptored group and 23.78 years for the non-preceptored group. There was one male in the non-preceptored group.

The means and the standard deviations for the six criteria are categorized by preceptored and non-preceptored groups. Pre-clinical, post-clinical, and professors'/preceptors' evaluations are presented in Table 1. The preceptored group had pre-clinical mean values for leadership, teaching, planning, and professionalism that were higher than in the non-preceptored group. The non-preceptored group had higher pre-clinical means for critical care and interpersonal relationships and higher post-clinical means for all the factors except professionalism. The professors' evaluation of their non-preceptored group was lower than the students' for all criteria except leadership. The preceptors' evaluation of students was higher than the professors' for all factors except leadership. The preceptors rated their students higher than the students rated themselves on all factors except professionalism.

Table 1

Means and Standard Deviations of Nursing Performance of Preceptored and Non-preceptored Nursing Students as Measured by the Six Dimensional Scale of Nursing Performance

Non-preceptored Group (n = 19)

Variable	Pre-clinical		Post-clinical		Professors	
	mean	SD ¹	mean	SD	mean	SD
Leadership	2.48	0.55	2.96	0.54	3.07	0.52
Critical Care	2.32	0.47	3.04	0.53	2.81	0.55
Teaching	2.28	0.37	2.88	0.64	2.79	0.56
Planning	2.70	0.37	3.19	0.51	3.11	0.44
Interpersonal Relations	3.02	0.43	3.33	0.46	3.14	0.48
Professional Development	3.18	0.37	3.47	0.38	3.31	0.45

¹SD: Standard Deviation

Table 1 (continued)**Preceptored Group (n = 9)**

	Pre-clinical		Post-clinical		Preceptors	
	mean	SD ¹	mean	SD	mean	SD
Leadership	2.55	0.61	2.68	0.84	3.02	0.42
Critical Care	2.26	0.63	2.62	0.37	3.10	0.51
Teaching	2.30	0.29	2.68	0.34	2.97	0.42
Planning	2.72	0.53	3.08	0.49	3.22	0.39
Interpersonal Relations	2.92	0.60	3.18	0.37	3.29	0.50
Professional Development	3.42	0.35	3.57	0.30	3.42	0.29

¹ SD: Standard Deviation

Homogeneity of variance tests, Cochran, and Bartlett-box tests were done to detect if the within-group variances of the non-preceptored and preceptored groups were significantly different from one another. The results were nonsignificant. These homogeneity of variance tests were also performed on the pre-clinical and post-clinical subgroups. Results indicated that the within-group variances were not significantly different except for the factor: "teaching." When the same tests were performed on the pre-clinical, post-clinical, and preceptors' and professors' evaluations of the two groups, heterogeneity of variances appeared for critical care, interpersonal relationships, and professionalism.

To find if the group effect for the non-preceptored and preceptored groups was zero, the first ANOVA for repeated measures was done. The results were nonsignificant, indicating that the non-preceptored and preceptored groups were similar. To test for change over time between the pre-clinical and the post-clinical evaluations of the two groups, ANOVA for repeated measures was performed (Table 2). The results showed that the means for all six criteria were significant, indicating that all factors changed over time.

The third ANOVA for repeated measures was performed on the pre-clinical and post-clinical evaluations of the two groups to see if there was a time and group effect (Table 3). The results were not significant, indicating that there were no interactions between the tests and the groups, although this could be due to the small sample size. An ANOVA for repeated measures was done so a comparison for means between the six criteria in the 6-D scale for the pre-clinical, post-clinical, and the professors' or preceptors' evaluations could be made. The ANOVA is the preferred initial test because it is a more complete, effective test which indicates significant overall differences among the factors while the t-test does not indicate the interpretable levels of significance (Norman & Streiner, 1986).

Table 2

Time-ANOVA to Detect Change Over Time for Repeated Measures (Pre-clinical versus Post-Clinical) Between the Non-preceptored (n = 19) and Preceptored (n = 9) Groups

	Mean Square hypothesis	Mean Square error	DF	F	P
Leadership	1.14	0.11	(1,26)	10.17	0.00*
Critical care	3.56	0.10	(1,26)	34.50	0.00*
Teaching	2.91	0.12	(1,26)	23.93	0.00*
Planning	2.27	0.15	(1,26)	15.38	0.00*
Interpersonal Relations	0.99	0.07	(1,26)	13.97	0.00*
Professional Development	0.59	0.03	(1,26)	20.00	0.00*

DF: degrees of freedom

* $p \leq .05$

Table 3

*Group*Time ANOVA for Repeated Measures to Detect a Time or Group Effect in the Non-preceptored (n = 19) and Preceptored (n = 9) groups*

	Mean Square hypothesis	Mean Square error	DF	F	P
Leadership	0.36	0.11	(1,26)	3.16	0.08
Critical Care	0.42	0.10	(1,26)	4.06	0.05*
Teaching	0.16	0.12	(1,26)	1.31	0.26
Planning	0.05	0.15	(1,26)	0.36	0.55
Interpersonal Relations	0.01	0.07	(1,26)	0.08	0.77
Professional Development	0.07	0.03	(1,26)	2.34	0.13

DF: degrees of freedom

* $p \leq .05$

Table 4 indicates that there are significant differences among the pre-clinical, post-clinical, and professors' means for leadership, teaching, and planning in the non-preceptored group. Table 5 shows that in the preceptored group a significant difference between the means of the three scores was found only for teaching. The professor and preceptor evaluations of the students, and students' self-evaluation were completed at the end of the clinical practice. The Scheffe tests for multiple comparisons revealed the following significant differences in the non-preceptored group: in leadership, between pre-clinical and post-clinical, and between pre-clinical and professors' evaluations; in teaching between pre-clinical and post-clinical, and between pre-clinical and professors' evaluations; and in planning between pre-clinical and post-clinical, and between professors' and pre-clinical evaluations. In the preceptored group, the only significant difference was for teaching between the pre-clinical and preceptors' scores. In the non-preceptored group, interpersonal relations and professionalism, and two factors in the preceptored group, planning and professionalism, have differences approaching statistical significance.

Table 4

A Comparison of Pre-clinical, Post-clinical, and Professors' Scores of Non-preceptored Nursing Students (n = 19) Using ANOVA

	Mean Square hypothesis	Mean Square error	DF	F	P
Leadership	1.86	0.26	(2,36)	7.08	0.00*
Teaching	2.02	0.23	(2,36)	8.61	0.00*
Planning	1.33	0.22	(2,36)	6.12	0.00*
Interperson Relations	0.45	0.18	(2,36)	2.5	0.09
Professional Development	0.41	0.15	(2,36)	2.68	0.08

DF: degrees of freedom

* $p \leq .05$

Table 5

A Comparison of Pre-clinical, Post-clinical, and Preceptors' Scores of Preceptored Nursing Students (n = 9) Using ANOVA

	Mean Square hypothesis	Mean Square error	DF	F	P
Leadership	0.50	0.25	(2,16)	2.00	0.16
Teaching	1.01	0.15	(2,16)	6.56	0.00*
Planning	0.60	0.21	(2,16)	2.91	0.08
Interpersonal Relations	0.32	0.27	(2,16)	1.18	0.33
Professional Development	0.06	0.02	(2,16)	2.63	0.10

DF: degrees of freedom

* $p \leq .05$

Table 6

T-test for Non-preceptored and Preceptored Groups, Comparing Pre-clinical and Post-clinical Evaluations

	Non-preceptored (n = 19)		Preceptored (n = 9)	
	pre-clinical to post-clinical		pre-clinical to post-clinical	
	t	p	t	p
Leadership	- 4.41	0.00*	- 0.84	- 0.42
Critical Care	—	—	—	—
Teaching	- 4.64	0.00*	- 4.25	0.00*
Planning	- 3.80	0.00*	- 2.30	0.05*
Interpersonal Relations	- 4.20	0.00*	- 1.63	0.14
Professional Development	- 4.84	0.00*	- 2.39	0.04*

* $p \leq .05$

Pearson correlations were examined, and no significant correlations were found between age or grade point average and the six test criteria.

In the non-preceptored group there were significant mean differences between pre-clinical and post-clinical scores for five of the six factors in this study (Table 6). (Critical care was omitted from the comparison because the students in psychiatry did not provide nursing care in that area). In contrast, the preceptored group had only two factors, teaching and professionalism, with a significant difference between pre-clinical and post-clinical scores. In the preceptored group there was a significant difference between pre- and post-clinical scores for critical care, teaching, planning, interpersonal relations, and professionalism.

Table 7 indicates that the pre-clinical and post-clinical t-test values are nonsignificant for the preceptors' and professors' evaluations. However, in the study by Myrick and Awrey (1988) planning was significant at the 0.05 level, and interpersonal relations at the 0.10 level.

Table 7
T-test Values Comparing Pre-clinical, Post-clinical, Professors' and Preceptors' Evaluations

	Pre-clinical		Post-clinical		Evaluations	
	Non-preceptored-preceptored		Non-preceptored-preceptored		Instructors/preceptors	
	t	p	t	p	t	p
Leadership	- 0.29	0.77	1.05	0.31	0.33	0.75
Critical Care	0.26	0.79	2.17	0.04	1.18	0.25
Teaching	- 0.18	0.86	0.89	0.38	- 0.83	0.41
Planning	- 0.09	0.93	0.55	0.59	- 0.64	0.53
Interpersonal Relations	0.51	0.61	0.84	0.41	0.72	0.48
Professional Development	- 1.66	0.11	- 0.65	0.52	- 0.66	0.52

An ANOVA tested for any difference between the two locations of Edmonton and outside Edmonton (Table 8). Because of the small sample size, the two groups were not separated. As indicated in Table 9, there was a significant difference in professionalism between the two locations.

Table 8

Mean Values for Nursing Performance as a Function of Location

	Edmonton		Outside of Edmonton	
	pre-clinical (n = 22)	post-clinical (n = 22)	pre-clinical (n = 6)	post-clinical (n = 6)
Leadership	2.46	2.90	2.65	2.72
Teaching	2.24	2.82	2.42	2.77
Planning	2.65	3.12	2.89	3.29
Interpersonal Relations	2.94	3.27	3.13	3.31
Professional Development	3.18	3.46	3.55	3.65

Table 9

ANOVA for Pre-clinical Evaluations as a Function of Location

(Compares Edmonton (n = 22) and Outside Edmonton (n = 6))

	Mean Square hypothesis	Mean Square error	DF	F	P
Leadership	0.01	0.52	(1,26)	0.02	0.88
Teaching	0.00	0.28	(1,26)	0.00	0.94
Planning	0.29	0.30	(1,26)	0.95	0.33
Interpersonal Relations	0.17	0.26	(1,26)	0.64	0.43
Professional Development	1.48	0.21	(1,26)	7.18	0.01*

DF: degrees of freedom

*p ≤ .05

Discussion

The students were evaluated by themselves, their professors, and their preceptors on the six criteria of leadership, critical care, teaching, planning, interpersonal relationships, and professionalism. The preceptored students rated themselves higher than did the non-preceptored students on the pre-clinical evaluation in the areas of teaching, planning, leadership, and professionalism, but on the post-clinical evaluation only on professionalism. Ironically, the preceptors rated the preceptored group higher than the non-preceptored group on all criteria except professionalism. With the exception of the professionalism criterion, the preceptors' ratings of the preceptored students were higher than students' evaluations and more favorable than the professors' ratings of the non-preceptored students. The preceptors were therefore not unduly hard on their students. The finding that professors rate student's performance lower than do preceptors has implications for the validity of student evaluations.

In terms of length of the rotation, significant differences were found when the Scheffe test for multiple comparisons was used. In the non-preceptored group, significant differences were found between pre-clinical and post-clinical, and between pre-clinical and professors' evaluations in the areas of leadership, teaching, and planning. In the preceptored group a significant difference between the pre-clinical and preceptors' scores was found only in teaching. Over time, a non-preceptored experience might have more impact on developing the student's nursing abilities or conversely, preceptorship might be most effective when limited to a time period not exceeding three weeks. When the Scheffe test was applied, significant differences were obtained in the non-preceptored group in the areas of leadership, teaching, planning, and interpersonal relationships; leadership and teaching were significant in the area of psychiatric nursing. These results suggest nursing performance is based on the adequacy of the clinical area and that a student's perception of a clinical area is influenced more when not in a preceptorship program. Perhaps students in a clinical group are taught to focus on leadership and teaching, as was the case for psychiatry, or by virtue of being in a group, they encourage each other to engage in these nursing actions.

The post-clinical results in this study do not corroborate those of Myrick and Awrey (1988). In the current study, the non-preceptored group had significantly higher scores for all factors except critical care, and the preceptored group had only two significantly higher factors: teaching and professionalism. Myrick and Awrey found that there were significantly higher scores for professionalism in the non-preceptored group and all factors except leadership in the preceptored group. This difference could be partly explained by the fact that the present study used third year baccalaureate nursing students, and included 19 non-preceptored subjects and more than one professor. Myrick and Awrey's study used fourth year students, and included only five non-preceptored subjects. The effect of clinical site and length of time in the clinical area could also have affected

nursing performance. Given these differences, our finding that the non-preceptored group performed better than the preceptored group must be interpreted with caution.

Limitations

This study is limited by the small sample size and a bias for students or professors/preceptors to give socially desirable responses on the instrument. Since students were not randomly assigned to type of teaching experience, variables other than preceptorship may have affected nursing performance. Also, evaluation of each preceptored student required three mailings (pre-clinical, post-clinical, and preceptor), and often only two of the three were received for a given participant. The number of preceptored students was thereby reduced from 33 to nine.

Another limitation of the current study is that preceptors volunteered rather than being preselected. This meant there was no control for educational background or previous experience with preceptorship. There was also no standardized orientation for the preceptors; some of the faculty members responsible for preceptors gave on-site, one-to-one orientations while others telephoned preceptors who lived in rural areas.

This study design had other problems. The preceptors did not have a comparison group against which to measure clinical performance; this introduced a bias. As well, the instrument was designed for practicing nurses rather than student nurses, so a caveat was placed at the top of the instrument: "Please note: This instrument was designed for registered nurses and so there may be items you will not be able to fill out." In reviewing the instrument for appropriateness of administration to student nurses, it was felt the items were general enough to be relevant to both groups of nurses (e.g.: seek assistance when necessary, develop a plan of nursing care for a patient, or give emotional support to family of dying patient).

Since the results of the present study do not corroborate those of Myrick and Awrey (1988), the authors are cautious about drawing any conclusions regarding the differences between preceptored and non-preceptored students. The differences observed may be due more to the professors and preceptors than the students. More research with a larger sample size is needed to assess nursing performance and other variables such as actual clinical site, length of program, year of student's program, first versus second preceptorship experience, and impact of theoretical knowledge (physiology) on performance.

Conclusion

The research question asked was, "What is the difference between the nursing performance of preceptorship and non-preceptored baccalaureate nursing students as rated by themselves and preceptors or professors?" The difference, regardless of statistical application, was that the non-preceptored group had significantly higher post-clinical scores on more factors than did the preceptored group. Further research in this area is warranted with more replication, a larger sample size, management of random assignment, and control for extraneous variables.

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The authors would like to acknowledge Dr. T. Taerum for his assistance with the analysis.

RÉSUMÉ

Les résultats des étudiants en sciences infirmières qui préparent un bac en suivant une formation individuelle ou en groupe

Cette étude compare l'efficacité de deux méthodes d'enseignement différentes, à savoir une formation individuelle ou en groupe. Ces méthodes ont pour but d'apporter les connaissances cliniques aux étudiants en sciences infirmières de troisième année de baccalauréat dans un cours obligatoire de six semaines à la session de printemps. Une échelle de six niveaux de performance en sciences infirmières a été utilisée pour l'auto-évaluation des étudiants, de même que pour l'évaluation des étudiants par les professeurs en formation individuelle ou en groupe. Cette étude est semblable à une étude antérieure appelée Canclain et qui a été faite par Myrick and Awrey (1988), mais les résultats sont radicalement différents. À la fin du cours clinique, les étudiants qui ont reçu une formation en groupe (19) avaient des évaluations bien plus positives quant aux facteurs d'animation, d'enseignement, de planification, de relations interpersonnelles et de professionnalisme comparativement aux évaluations pré-cliniques. Selon Myrick and Awrey (1988), seul le facteur de professionnalisme était nettement plus élevé dans cette comparaison. En ce qui concerne le groupe en formation individuelle (9), seuls l'enseignement et le professionnalisme étaient considérés comme bien plus positifs après six semaines d'expérience clinique. Cette étude était limitée à cause de la petite taille de l'échantillon, du manque d'attributions aléatoires et de l'influence des préjugés. Une recherche supplémentaire serait justifiée.

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

Cumulative Index

Volume 24 - 1992

AUTHORS

Arseneault, A.M. See Thomas, B.	24(2), 33
Arseneault, A.M. See Thomas, B.	24(2), 49
Barrett, C. See Myrick, F.	24(3), 53
Blake, J. See Roberts, J.	24(4), 29
Bouchard, J. See Thomas, B.	24(2), 33
Chambers, L.F. See Roberts, J.	24(4), 29
Chapman, J.S. See Saxe-Braithwaite M.E.	24(3), 69
Choudhry, U.K. Faculty Practice Competencies: Nurse educators' perceptions	24(3), 5
Côté, E. See Thomas, B.	24(2), 33
Côté, J.K. & Fortin, M.F. Processus d'adaptation à la maladie chez des personnes atteintes du syndrome d'immunodéficience acquise	24(3), 19
Ducharme, F. & Rowat, K. Conjugal Support, Family Coping Behaviours and the Well-being of Elderly Couples	24(1), 5
Duquette, A. See Sandhu, B.	24(1), 51
Fortin, M.-F. See Côté, J.K.	24(3), 19
Gallant, G. Sources de stress perçues par les soignantes naturelles: une étude phénoménologique	24(4), 5
Gottlieb, L. A Time for Reflection: A prelude to change	24(3), 1
Gottlieb, L. Nurses not Heard in the Health Promotion Movement	24(4), 1
Heaman, M. Stressful Life Events, Social Support, and Mood Disturbance in Hospitalized and Non-hospitalized Women with Pregnancy-induced Hypertension	24(1), 23
Hills, M. See Lindsey, E.	24(1), 39
Hiscott, R.D. & Sharratt, M.T. Longitudinal Panel Analysis of Nursing Registrant Data	24(4), 19
Jeans, M.E. A Fond Farewell	24(2), 1
Jeans, M.E. Clinical Significance of Research: A growing concern	24(1), 1
Keddy, B. The Coming of Age of Feminist Research in Canadian Nursing	24(2), 5
Kérouac, S. See Sandhu, B.	24(1), 51
Kisilevsky, B.S. How to Judge a Successful Research Career	24(2), 11
Kristjanson, L.J. Conceptual Issues Related to Measurement in Family Research	24(3), 37
Lindsey, E. & Hills, M. An Analysis of the Concept of Hardiness	24(1), 39
Morse, J.M. The Myth of the Programmatic Research Grant	24(2), 15
Myrick, F. & Barrett, C. Preceptorship Selection Criteria in Canadian Basic Baccalaureate Schools of Nursing - A survey	24(3), 53
Neff, J.A. & Summers, S. Client-Environment Interaction: Context for nursing care	24(2), 26
Roberts, J., Chambers, L.F., Blake, J. & Webber, C. Psychosocial Adjustment in Post-menopausal Women	24(4), 29
Rowat, K. See Ducharme, F.	24(1), 5
Sandhu, B.K., Kérouac, S. & Duquette, A. A Case Study of a Nursing Assignment Pattern	24(1), 51

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

Cumulative Index

Volume 24 - 1992

AUTHORS

Saxe-Braithwaite, M.E. & Chapman, J.S. Life on Hold: The experience of the support person involved in a lung transplant program	24(3), 69
Sharratt, M.T. See Hiscott, R.D.	24(4), 19
Stanton, S. See Thomas, B.	24(2), 33
Summers, S. See Neff, J.A.	24(2), 26
Thomas, B. & Arseneault, A.M. Organizing your School for Accreditation	24(2), 49
Thomas, B., Arseneault, A.M., Bouchard, J., Coté, E. & Stanton, S. Accreditation of University Nursing Programmes in Canada	24(2), 33
Tourigny, J. État émotionnel des mères et comportement de l'enfant lors d'une chirurgie mineure	24(1), 65
Trojan, L. See Yonge, O.	24(4), 59
Webber, C. See Roberts, J.	24(4), 29
Westera, D. A Profile of Part-time Faculty in Canadian University Nursing Programmes	24(4), 45
Yonge, O. & Trojan, L. The Nursing Performance of Preceptored and Non-preceptored Baccalaureate Nursing Students	24(4), 59

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

Cumulative Index

Volume 24 - 1992

TITLES

<i>A Case Study of a Nursing Assignment Pattern:</i> Sandhu, B., K��rouac, S. & Duquette, A.	24(1), 51
<i>A Fond Farewell:</i> Jeans, M.E.	24(2), 1
<i>A Profile of Part-time Faculty in Canadian University Nursing Programmes:</i> Westera, D.	24(4), 45
<i>A Time for Reflection: A prelude to change:</i> Gottlieb, L.	24(3), 1
<i>Accreditation of University Nursing Programmes in Canada:</i> Thomas, B., Arseneault, A.M., Bouchard, J., C��t��, E. & Stanton, S.	24(2), 33
<i>An Analysis of the Concept of Hardiness:</i> Lindsey, E. & Hills, M.	24(1), 39
<i>Client-Environment Interaction: Context for nursing care:</i> Neff, J.A. & Summers, S.	24(2), 26
<i>Clinical Significance of Research: A growing concern:</i> Jeans, M.E.	24(1), 1
<i>Conceptual Issues Related to Measurement in Family Research:</i> Kristjanson, L.J.	24(3), 37
<i>Conjugal Support, Family Coping Behaviours and the Well-being of Elderly Couples:</i> Ducharme, F. & Rowat, K.	24(1), 5
<i>��tat ��motionnel des m��res et comportement de l'enfant lors d'une chirurgie mineure:</i> Tourigny, J.	24(1), 65
<i>Faculty Practice Competencies: Nurse educators' perceptions:</i> Choudhry, U.K.	24(3), 5
<i>How to Judge a Successful Research Career:</i> Kisilevsky, B.S.	24(2), 11
<i>Life on Hold: The experience of the support person involved in a lung transplant program:</i> Saxe-Braithwaite, M.E. & Chapman, J.S.	24(3), 69
<i>Longitudinal Panel Analysis of Nursing Registrant Data:</i> Hiscott, R.D. & Sharratt, M.T.	24(4), 19
<i>Nurses not Heard in the Health Promotion Movement:</i> Gottlieb, L.	24(4), 1
<i>Organizing your School for Accreditation:</i> Thomas, B. & Arseneault, A.M.	24(2), 49
<i>Preceptorship Selection Criteria in Canadian Basic Baccalaureate Schools of Nursing - A survey:</i> Myrick, F. & Barrett, C.	24(3), 53
<i>Processus d'adaptation �� la maladie chez des personnes atteintes du syndrome d'immunod��ficience acquise:</i> C��t��, J.K., Fortin, F.	24(3), 19
<i>Psychosocial Adjustment in Post-menopausal Women:</i> Roberts, J., Chambers, L.F., Blake, J. & Webber, C.	24(4), 29
<i>Sources de stress per��ues par les soignantes naturelles: une ��tude ph��nom��nologique:</i> Gallant, G.	24(4), 5
<i>Stressful Life Events, Social Support and Mood Disturbance in Hospitalized and Non-hospitalized Women with Pregnancy-induced Hypertension:</i> Heaman, M.	24(1), 23
<i>The Nursing Performance of Preceptored and Non-preceptored Baccalaureate Nursing Students:</i> Yonge, O. & Trojan, L.	24(4), 59
<i>The Coming of Age of Feminist Research in Canadian Nursing:</i> Keddy, B.	24(2), 5
<i>The Myth of the Programmatic Research Grant:</i> Morse, J.M.	24(2), 15

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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

