

*THE CANADIAN JOURNAL
OF
NURSING RESEARCH*

Summer / Été 1990 Vol. 22, No. 2

*REVUE CANADIENNE
DE RECHERCHE
EN SCIENCES INFIRMIÈRES*

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

Volume 22, No. 2

Summer/Été, 1990

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

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

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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 cet numéro.

ISSN 0844-5621

Dépot légal - 1er trimestre 1974; Bibliothèque Nationale du Québec

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ADVANCING DOCTORAL PREPARATION FOR NURSES

On September 27th and 28th, 1990 the Faculty of Nursing of the University of Alberta, in conjunction with the Faculty of Extension, sponsored an international conference entitled "Advancing Doctoral Preparation for Nurses: charting a course for the future". This Forum was the first on doctoral education in Canada. While the speakers and the program reflected international content, the majority of people attending the meeting were from Canadian institutions. Attendance was particularly strong from those Canadian universities that are in the process of developing Ph.D. programs in Nursing.

The program began with a review of the history of doctoral education for nurses in the U.S. and in the United Kingdom, Europe and other countries. These presentations were made by Rozella Schlotfeldt and Lisbeth Hockey; Janet Kerr recounted the traditions of education in Canada. The historical aspects were followed by a discussion of social, political and economic influences in the advancement of doctoral preparation. Ginette Roger spoke on the relation of these influences to the professional association and Mary Ellen Jeans examined them from the perspective of the university and the provincial ministries of education.

The second day of the conference was devoted to presentations by Lisbeth Hockey, on the philosophical underpinnings of doctoral education for nurses, and Dorothy Pringle who led a discussion of pathways to doctoral education. Interestingly, there seems to be unanimous agreement that doctoral preparation in Canada should lead to a Ph.D. in Nursing, and not a professional degree. However, Pringle reminded the conference that a significant number of nurses who have undergraduate and master's degrees in a variety of disciplines may wish to seek doctoral preparation; as such, there is a need, at the outset, for us to have reasonably flexible policies that will promote doctoral studies. Carol Lindeman presented an excellent discussion of the structure and substance of doctoral education for nurses; it also highlighted the differences between Canada and the U.S. in the actual structure of programs.

Overall the conference was very successful, particularly the discussion of issues and identification and problems that have occurred in other countries. Through such discussion we have an opportunity to learn what to avoid and what to pursue. It was refreshing to identify the similarities in structure and principle objectives of doctoral objectives in Canadian universities that are planning them. It was also important to learn how different universities will be able to provide research training at the doctoral level in specific areas that have already been developed in many of our university schools of Nursing.

That is, while the program structures may be similar across Canada, the areas of expertise will differ according to each school of Nursing faculty complement and the areas of research that are well developed in each school.

To date, there are several universities in Canada that are at various stages of planning or offering doctoral studies in Nursing. The University of Alberta had approval for a Ph.D. program in Nursing some four years ago, and are still awaiting provincial funding for the program. In the interim, they have accepted three special case doctoral students. The University of Montreal and McGill University have university approval for a joint doctoral Nursing program in Quebec. They are currently awaiting final approval and funding from the Ministry of Education. In the interim, McGill has accepted six special case (ad-hoc) doctoral students, and graduated its first Ph.D. in Nursing in October 1990. The University of Toronto and the University of British Columbia are submitting proposals for doctoral programs during the 1990 academic term. Other universities are also following a five-year agenda.

From these updates it seems evident that we will have three or four funded doctoral programs in Canada within the next five years. It is also evident that, in 1990, we have begun to graduate our own doctorally-prepared nurses in order to fill the enormous need in academia for leadership and for advanced research training.

Dr. Peggy-Anne Field and her committee from the University of Alberta's Faculty of Nursing should be congratulated for organizing an excellent conference that we all enjoyed and from which we benefited greatly. The question now remains, should we in Canada plan a regular forum on doctoral education? Certainly, in the United States, this is a well-established and ongoing activity. It is my opinion that the time has come for us to formalize our discussions and planning for doctoral education in Canada. I would like to see a conference every two or three years that is devoted to this topic. However, I would like it to remain a relatively small group of Canadian nurse faculty, in order to encourage discussion and interchange of ideas and to plan various lobbying strategies that may help facilitate the process of doctoral education development. Certainly the conference in Alberta was an excellent example of this type of sharing and collaborative discussion. All of our university Nursing schools are members of the Canadian Association of University Schools of Nursing; it may, therefore, be appropriate to put this item on the agenda for our next council discussion. I think that, if we wish to formalize and regularize these discussions, this could well be done in conjunction with one of our CAUSN council meetings. I look forward to further discussion and, in particular, further progress in our endeavours to launch Ph.D. programs in Nursing.

Mary Ellen Jeans

L'AVANCEMENT DES ÉTUDES DE TROISIÈME CYCLE POUR LES INFIRMIERS

Les 27 et 28 septembre 1990, la faculté des sciences infirmières de l'Université d'Alberta, avec la collaboration de la faculté d'éducation permanente, a organisé un colloque international intitulé *Advancing Doctoral Preparation for Nurses: charting a course for the future*. Il s'agissait d'une première au Canada. Si les conférenciers et le programme reflétaient le caractère international de la conférence, la majorité des participants représentaient des établissements canadiens. Les délégations des universités qui mettent actuellement en place des programmes de troisième cycle étaient particulièrement nombreuses.

D'entrée de jeu, les conférenciers ont tenu à faire le point sur l'histoire de la formation des infirmiers au niveau du troisième cycle aux États-Unis, au Royaume-Uni, en Europe et ailleurs. Ces présentations ont été confiées à Rozella Schlotfeldt et Lisbeth Hockey; Janet Kerr, pour sa part, a relaté les traditions d'enseignement au Canada. Aux aspects historiques de la question, a succédé une suite d'exposés sur les facteurs sociaux, politiques et économiques qui influent sur l'avancement des programmes de doctorat. Ginette Roger a analysé les rapports qui existent entre ces facteurs et l'association professionnelle et Mary Ellen Jeans les a situés dans la conjoncture des relations universités-ministères provinciaux de l'Éducation.

Le second jour du colloque a été consacré à l'étude des principes qui sous-tendent toute la question de la formation des infirmiers au niveau du troisième cycle: au programme, un exposé de Lisbeth Hockey et un débat mené par Dorothy Pringle sur les chemins qui mènent à des études à ce niveau. Nous notons avec intérêt que les universités canadiennes conviennent à l'unanimité que les études de troisième cycle en sciences infirmières doivent être sanctionnées par un doctorat d'université (Ph.D.) en sciences infirmières plutôt que par un grade professionnel. Mme Pringle a toutefois tenu à souligner qu'un nombre important d'infirmiers titulaires de grades universitaires de premier et de deuxième cycles spécialisés dans différentes disciplines, pourraient souhaiter poursuivre leurs études au niveau du doctorat; il y aura donc lieu d'adopter d'emblée des politiques assez souples de nature à favoriser la poursuite d'études de troisième cycle. Carol Lindeman a brossé un tableau très complet de la structure et de la teneur de l'enseignement de troisième cycle pour les infirmiers dans lequel elle a souligné les différences qui existent entre le Canada et les États-Unis au chapitre de la structure des programmes.

Dans l'ensemble, nous pouvons affirmer que le colloque a remporté un franc succès et que l'examen des questions et problèmes soulevés dans d'autres pays a été particulièrement instructif. Ces échanges nous donnent l'occasion de découvrir les éléments à retenir et les écueils à éviter. Nous avons constaté avec satisfaction les similitudes qui existent sur le plan de la structure et des objectifs de principe entre les différentes universités canadiennes qui entendent mettre en place des programmes de doctorat. À ce stade, il était également important de savoir comment les différentes universités entendent offrir une formation de recherche à ce niveau dans les disciplines déjà privilégiées dans nos écoles de sciences infirmières. C'est dire que, même si les structures des programmes sont similaires dans les différentes universités canadiennes, les domaines de spécialisation varient d'un établissement à l'autre en fonction du corps professoral et des recherches qui se font déjà dans chacune des écoles.

À ce jour, plusieurs universités canadiennes offrent des programmes de troisième cycle ou sont en voie de les mettre en place. La faculté des sciences infirmières de l'Université d'Alberta a fait approuver, il y a environ quatre ans, son programme d'études de doctorat en sciences infirmières et attend toujours le déblocage des crédits provinciaux qui permettront de donner le coup d'envoi au programme. En attendant, l'université a admis trois étudiants extraordinaires à son programme de troisième cycle. La faculté des sciences infirmières de l'Université de Montréal et l'École des sciences infirmières de l'Université McGill ont obtenu l'autorisation de leur Université de mettre en place un programme de doctorat conjoint au Québec. Pour l'heure, on attend que le projet soit sanctionné et financé par le ministère de l'Éducation. En attendant, McGill a admis six étudiants extraordinaires à son programme de doctorat et décerné son premier doctorat en sciences infirmières en octobre 1990. L'Université de Toronto et l'Université de Colombie-Britannique déposeront leur projet de programme de doctorat durant l'année universitaire 1990. Un certain nombre d'autres écoles universitaires de sciences infirmières ont inclus l'enseignement de troisième cycle dans leur plan de développement quinquennal.

Selon ces données, trois ou quatre programmes de doctorat dont le financement est assuré devraient être en place dans les universités canadiennes d'ici cinq ans. Nous avons par ailleurs commencé à décerner des doctorats en sciences infirmières en vue de répondre à l'importante demande de professeurs qualifiés doués de qualités de leader et aptes à assurer la formation des chercheurs au niveau du troisième cycle.

Nous tenons à féliciter Mme Peggy-Anne Field, de la faculté des sciences infirmières, et son comité d'avoir organisé un colloque aussi percutant qui nous a bénéficié à tous. Nous devons maintenant nous demander s'il y a lieu de nous réunir régulièrement pour faire le point sur les études de doctorat en

sciences infirmières au Canada. C'est une tradition qui est d'ores et déjà solidement établie aux États-Unis. À mon avis, le moment est venu de structurer nos réflexions et de rationaliser la planification des enseignements de troisième cycle en sciences infirmières au Canada. On pourrait organiser une conférence sur cette question tous les deux ou trois ans. Je pense toutefois qu'il serait préférable de réunir un groupe relativement restreint de professeurs de sciences infirmières en vue d'encourager les débats et les échanges d'idées et de mettre au point différentes stratégies d'intervention auprès des autorités pour accélérer l'élaboration et la mise en place de programmes de doctorat. Le colloque albertain illustre précisément le type de concertation et de réflexion de groupe que nous souhaitons poursuivre. Toutes les écoles universitaires de sciences infirmières sont membres de l'Association canadienne des écoles universitaires de nursing; cette question pourrait donc figurer à l'ordre du jour de la prochaine réunion du conseil. Je crois que si nous projetons d'avoir régulièrement des échanges concertés sur ces questions, nous pourrions les insérer dans le cadre d'une des assemblées de l'A.C.E.U.N. C'est avec confiance que j'anticipe la poursuite de ces discussions et nos progrès futurs vers l'établissement des programmes de doctorat en sciences infirmières.

Mary Ellen Jeans

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The University of Calgary invites applications for two tenure-track appointments in the Faculty of Nursing programmes. Faculty members teach across all programmes which include a generic baccalaureate programme, a Post-Diploma baccalaureate programme and a Master of Nursing Programme which prepares advanced nurse practitioners for clinical specialization, management and education.

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SCHOLARLY PRODUCTIVITY OF UNIVERSITY NURSING FACULTY

Sonia Acorn

Nursing research is actively promoted within the profession. Since the first nursing research journal appeared in 1952, there has been a steady increase in nursing publications (Brown, Tanner & Padrick, 1984). Nursing faculty recognize the importance of research as a means of fostering the discipline of Nursing within the academic community. According to Davis and Williams (1985) nursing faculty have greater difficulty than faculty from other disciplines in establishing and succeeding in institutions of higher learning. The purpose of this study was to identify the scholarly productivity level of faculty in selected Canadian university schools of nursing.

Literature Review

Success in academia is dependent on scholarly productivity; yet definitions of scholarly productivity and faculty productivity differ in the literature. Faculty productivity, as defined by Andreoli and Musser (1986), is the quantity and quality of teaching, research, service and practice. The authors acknowledge that faculty productivity expectations vary according to nursing degree program: diploma, associate degree, baccalaureate or higher education. According to Davis and Williams (1985), the research productivity role (scholarly productivity) is the most highly valued role in academia. Megel, Langston & Creswell (1988), define scholarly productivity measures as research publications, publications other than research, chapters in books, conference poster sessions and numbers of ongoing research projects.

In determining the scholarly productivity level of doctorally-prepared nurses, Megel (1987) used a convenience sample of all doctorally-prepared nurses listed in one of two directories: the 1984 American Nurses' Association *Directory of Nurses with Doctoral Degrees* and the 1983 Sigma Theta Tau *Directory of Nurse Researchers* (all those listed with doctorates and American addresses). The sample of 343 reported a mean of 2.34 (SD=3.11) research articles published in refereed journals over the preceding three-year period, and a slightly lower mean of 2.25 (SD=3.15) of non research articles published.

Sonia Acorn, R.N., Ph.D. is Assistant Professor in the School of Nursing, at the University of British Columbia, in Vancouver.

These results are similar to findings of a second study by Megel et al. (1988), where the sample was chosen from among faculty members of NLN-accredited schools and colleges of nursing granting master's and/or higher degrees. Deans of these schools and colleges were asked to identify the four leading doctorally-prepared nurse researchers at that school or college, excluding themselves. The 94 doctorally-prepared, tenured nursing faculty in the sample, reported a mean of 2.3 (SD=2.8) research articles published in the previous three years and a slightly higher mean of 2.8 (SD=3.6) non research articles published. The authors do not report whether or not these publications are in refereed or non-refereed journals. The subjects were then subdivided into four groups: Group 1 = those with no published research in the past three years, Group 2 = those with 1 to 4 articles published in the last three years, Group 3 = those with 5 to 7 articles published in the last three years and Group 4 = those with 8 to 16 articles published in the last three years. Thirty-three (35.1%) were in Group 1 (no published research in the last three years), 42 (44.7%) in Group 2, 14 (14.9) in Group 3 and 5 (5.3%) in Group 4.

Examining lifetime publications, Ostmo (1986) reported on 261 full-time, tenure track faculty in seven schools of nursing that offered baccalaureate, master's and doctoral programs. In assessing publication productivity levels, the quantity of publications was defined as the "self-reported cumulative number of single-author, co-authored and multiple authored books, edited books, monographs, book chapters and professional journal articles accepted for publication" (p. 208). Care was taken to define the quality of publication productivity; only articles accepted in refereed journals, utilizing blind review and involving a nurse in the final manuscript selection were included in the data. A weighted quantity of publication formula was used: a single-authored work was counted as one, a co-authored work as one-half and multiple authored work as one-fourth. A non-weighted score was also computed using a straight counting of publications.

Findings indicated a mean of 6.5 unweighted, lifetime publications per nurse faculty member and 5.5 weighted publications. This is higher than that found by Lia-Hoagberg (1985), who reported a mean of 4.31 unweighted, lifetime published journal articles for nurse doctorates, compared to a mean of 9.53 for academic women in other disciplines and with doctorates.

Method

Data presented here are part of a study that compared joint academic-clinical appointed faculty and non-joint appointed faculty on selected variables. The sample was selected from the five Canadian university nursing faculties reporting the highest proportion of joint academic/clinical appointees; this sampling procedure was based on the sample requirements

of the larger study. These five represented 20% of the 25 university schools of nursing in Canada. Four of the five had master's programs, none had doctorate programs as these are only now starting in Canada. One hundred and sixty-two (162) questionnaires were mailed to full-time employed nurse faculty members, of which 123 (75.9%) were returned. A total of 113 usable responses were included in the analysis; ten were deleted as they did not meet the sampling criteria of full-time employed, or were late returns.

Instrument

The instrument used to collect data on scholarly productivity contained eight measures of scholarly productivity that were based on the work of Megel et al. (1988) and 13 items on personal or professional characteristics. The productivity items asked for single counts of research products over the preceding three year period: research articles published or accepted for publication in refereed journals, journal articles other than research, chapters in books, books, conference papers or poster sessions presented, research projects involved in as principal or co-investigator and external research grants received.

Results

Background characteristics

The majority of the respondents (29%), were between 41 and 45 years of age and were experienced nurses and teachers, with the largest number (28%) having between 6 and 10 years university teaching experience. Sixty (53%) of the respondents had over 20 years nursing experience.

Seventy (62.5%) held a master's degree as their highest educational level and forty-two (37.5%) hold a doctorate degree; one study subject did not report this information. Forty-four (39%) hold the academic title of Assistant Professor and 39% the title of Associate Professor; thirteen (11.5%) hold the title of Professor and twelve (10.6%), the title of Lecturer or other. Thirty-three (29%) held a joint academic-clinical appointment with a health care facility.

Scholarly productivity

The number of scholarly works in the areas of research, writings and conference presentations for the preceding three years indicate that faculty were most productive in publishing research articles, current research projects and presenting papers at conferences (Table 1). Less productivity was shown in publishing articles other than research, writing chapters in books and publishing books.

Table 1***Scholarly Productivity (N=113)***

Performance Measure	Preceding 3 years	
	x	SD
Research articles in refereed journals	2.23	4.00
Articles other than research in refereed journals	0.82	1.16
Chapters in books	0.77	1.61
Books	0.20	0.69
Conference paper presentations	5.39	5.77
Conference poster presentations	1.47	2.03
Research projects as principal or co-investigator	2.35	1.92
Number of external research grants	1.63	1.78

Faculty were then grouped into four categories, similar to the categorization used by Megel et al. (1988). As shown in Table 2, 40% of the total group had not published any research during the preceding three years and the most prolific publishers had 8 or more articles in the past three years.

Table 2***Research Articles Published in Refereed Journals (N=112)****

Groups	x	SD
Group 1: No research articles in past 3 years (n=45, 40.2%)	0	0
Group 2: 1 to 4 research articles in past 3 years (n=52, 46.4%)	1.96	0.97
Group 3: 5 to 7 research articles in past 3 years (n=8, 7.1%)	5.75	0.71
Group 4: 8 or more research articles in past 3 years (n=7, 6.3%)	14.57	7.44

* Data missing from 1 respondent.

Research publications of doctorally-prepared and master's-prepared faculty were found to differ significantly (Table 3).

Table 3

Research Publications in Refereed Journals of Doctorally-prepared and Masters-Prepared Faculty**

	Doctorates (N=42)		Master's (N=69)		t value	2-tailed probability
	x	SD	x	SD		
Number of publications	3.45	4.96	1.52	3.12	-2.26	.027*

* Significant at $p < .05$

** Data not provided by two respondents.

Research publications of the respondents who were doctorally-prepared can be seen in Table 4.

Table 4

Research Articles Published by Doctorally-prepared Faculty (N=42)

	x	SD
Doctorates	3.45	4.96
Doctorate and tenured (n=30)	4.13	5.72
Doctorate and professor (n=12)	7.75	7.65

Conclusions and Discussion

The findings from this study cannot be generalized beyond the particular sample. There is also the limitation of self-reporting; did all respondents understand which are refereed journals? Subjects were not requested to provide lists of publications. Subjects were also not requested to indicate whether or not the publications were single, co-authored or multiple authored.

The profile of this particular group of university nursing faculty is one of a group of experienced nurses and experienced teachers. The majority are between 41 and 45 years of age and in a very productive period of their lives. The majority hold a master's degree as their highest educational level and are at either the assistant professor or associate professor rank.

The most frequently used format to share knowledge with colleagues is through presentation of papers at conferences. The opportunity to meet colleagues at conferences may be highly valued in a country where there is a large geographic area and a small population. Publishing research articles in refereed journals was the second most frequently used format to disseminate knowledge. Publishing of books or chapters in books was the least frequently used output of scholarly productivity; this may be due to the fact that tenure and promotion criteria do not provide enough rewards in relation to the amount of effort required to justify the time required. An additional reason may be that most of the nursing texts in North America continue to be published in the United States and involvement in these publications requires contacts by Canadian scholars with their American counterparts.

Research articles published by the total sample in this study are similar in number to the doctorally-prepared nursing faculty in both the Megel (1987) and the Megel et al. (1988) studies. In both studies subjects reported a mean of 2.3 research articles published in the previous three years. In this study, the reported mean was 2.2 for the previous three years. However, when the doctorally-prepared faculty responses are analyzed separately from faculty with master's preparation, the average of published research article rises to 4.1 for the preceding three years.

Nursing faculty, as they continue to establish their presence in academia, should define scholarly productivity in nursing and estimate desired levels of productivity. Further research is required to provide a more comprehensive profile of scholarly productivity within Canadian nursing faculties. An additional study could replicate the design of the Megel et al.(1988) study and examine the scholarly productivity of individuals identified by the nursing community as leading nurse researchers. An additional study, of scholarly productivity of all doctorally-prepared nurses in Canada, would provide a data base from which to determine if the anticipated increase in doctorally-prepared nurse faculty will have an impact on various scholarly activities. Any future research should incorporate means to measure quality as well as quantity of publications.

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This research was supported by a grant from the Canadian Nurses Foundation.

RÉSUMÉ

Publications érudites de professeurs de sciences infirmières oeuvrant dans le milieu universitaire

La présente étude avait pour objectif d'évaluer le niveau de productivité des professeurs de différentes écoles universitaires de sciences infirmières. Huit mesures de productivité définie en fonction des publications, d'après Megel, Langston et Creswell (1988), ont été utilisées dans un questionnaire auto-administré visant à recueillir des données auprès de 113 professeurs de sciences infirmières employés à plein temps.

Les résultats révèlent que 40 % des professeurs n'ont rien publié au cours des trois années précédant le questionnaire. Ceux qui ont publié des articles font état en moyenne de 2,23 (ET 4.00) rapports de recherche publiés dans des revues avec évaluation confraternelle au cours des trois années précédant le questionnaire. Ces résultats corroborent ceux des études de Megel (1987) et de Megel et al. (1988) menées auprès de professeurs ayant suivi une formation de troisième cycle où les répondants affirmaient avoir publié en moyenne 2,3 articles au cours des trois années ayant précédé le questionnaire. Dans la présente étude, si l'on analyse séparément les réponses des professeurs titulaires d'une maîtrise et des professeurs titulaires d'un doctorat, les pourcentages varient considérablement, le nombre d'articles publiés passant à 4,1 pour les trois années précédant le questionnaire chez les professeurs qui détiennent un Ph.D. Ces derniers publient donc nettement plus d'articles que les professeurs qui ont une formation de deuxième cycle. Les communications données dans le cadre de colloques sont perçues comme un excellent moyen de diffusion des connaissances.

**Canadian Journal
of Community
Mental Health**

**An Interdisciplinary Journal
Biannual, ISSN 0713-3936**

Editors

**Edward Bennett, Ph.D.
Department of Psychology
Wilfrid Laurier University**

**Barry Trute, D.S.W.
School of Social Work
University of Manitoba**

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LA QUALITÉ DE VIE DE PARAPLÉGIQUES ET QUADRIPLÉGIQUES: ANALYSE RELATIVE A DES VARIABLES DE L'ENVIRONNEMENT

Louise Gagnon

Cet article constitue le deuxième volet du compte-rendu d'une étude (Gagnon, 1988) effectuée auprès d'individus ayant subi un traumatisme accidentel de la moelle épinière. La première partie du compte-rendu a été rapportée dans le numéro précédent [22,(1)]. Cette étude vise à déterminer l'influence de différents facteurs reliés à la personne ou à l'environnement dans le processus de réaction initié par l'individu, en vue d'une meilleure qualité de vie.

En effet, la façon de réagir face à un changement de condition si brutal est vue par plusieurs auteurs comme un point déterminant pour la vie future (Adams et Lindemann, 1974; Pearlin et Schooler, 1978) et se trouve, à son tour, plus ou moins directement influencée par des facteurs propres à l'individu ou encore à l'environnement de celui-ci (Moos & Tsu, 1977).

Deux facteurs reliés à l'environnement ont été retenus: le support social et le support parental antérieur. Ils font l'objet de cet article et seront traités tout autant d'un point de vue théorique que par l'aspect empirique basé sur les résultats obtenus. Le cadre théorique de Moos et Tsu (1977) concernant la situation de crise vécue suite à une maladie ou à une blessure physique grave a été utilisé pour cette étude et a été décrit précédemment (Gagnon, 1990). La figure 1 présente le modèle théorique initial à la base de cette étude.

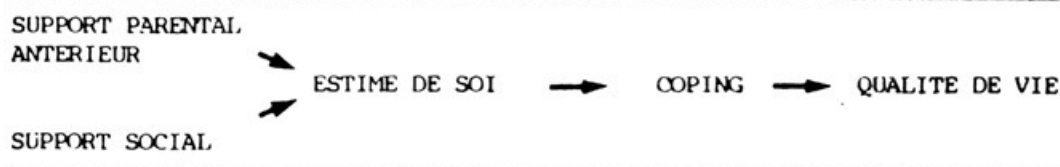


Figure 1
Modèle théorique initial

Louise Gagnon, R.N., Ph.D. est professeure agrégée à la Faculté des sciences infirmières, à l'Université de Montréal.

Dès 1964, Caplan s'est intéressé au concept de support social et cette appellation est devenue courante dans les années soixante-dix suite à ses nombreux travaux. Ses premières préoccupations en la matière se sont manifestées par l'investigation concernant la présence de personnes significatives pour l'individu, en relation avec le maintien de l'intégrité personnelle tant au point de vue physique que psychologique. Pour Caplan, ces personnes importantes peuvent provenir de la famille, être des amis, des voisins ou s'avérer des ressources externes. D'autres auteurs rejoignent cette vision globale des sources possibles de support social: entre autres, Collins et Panoosian (1976) appuient sur l'existence de nombreuses formes de support apporté par les non-professionnels qui peuvent inclure, par exemple, les groupes d'aide organisés (associations de personnes ayant un problème particulier, services d'écoute téléphonique, etc.) tandis que Gottlieb (1976, 1978) illustre les composantes de ce nombre considérable de personnes en choisissant, au sein de la communauté, les professeurs, les ecclésiastiques et les médecins de famille, ceux-ci ayant tous un contact étroit avec le public et ayant été formés pour aider leur clientèle respective.

Selon Hirsch (1979), le réseau social d'un individu englobe l'ensemble des personnes avec lesquelles celui-ci a des interactions au point de vue social. Cependant cette définition très large peut facilement être limitée aux personnes significatives qui ont actuellement de telles interactions avec l'individu (Hirsch, 1980). Le support social s'avère donc un concept plus limité au sein du réseau social d'un individu; c'est ainsi que Lieberman l'interprète en affirmant que le support social repose sur la présence, dans le réseau social de l'individu, de personnes sur lesquelles celui-ci peut se fier (1982).

Caplan (1974) suggère que le réseau de support social agit dans le sens que les personnes significatives vont aider l'individu à mobiliser ses ressources psychologiques et à maîtriser son fardeau émotionnel. Les tâches seront partagées et ces personnes significatives apporteront à l'individu l'aide monétaire et matérielle, lui donneront les directives cognitives nécessaires à induire sa prise en main de la situation ou encore lui fourniront les outils indispensables à l'acquisition d'habiletés spécifiques. Cette nouvelle tendance dans le but de définir ce qu'est le support social a été exploitée par Gottlieb à qui nous devons une contribution importante en ce qui concerne l'évaluation du réseau de support social d'un individu. En effet, il a été l'un des premiers, en 1978, à s'intéresser à la spécification des diverses activités impliquées lorsqu'il s'agit de formes naturelles de support. C'est ainsi que furent facilités les travaux visant à classifier les comportements naturels d'aide, comportements qui constituent la base d'une des approches utilisées pour la mesure du concept de support social. Plusieurs autres auteurs ont

émis de telles classifications et c'est ainsi que nous parlons de formes ou encore de fonctions du support social.

Bozzini et Tessier (1985) ont effectué une revue de l'évolution des stratégies de recherche concernant le support social: ils distinguent trois étapes à la base de cette évolution. Au départ, l'approche utilisée était strictement quantitative, cette approche se préoccupait donc uniquement du nombre de liens sociaux. Bien qu'ayant fait ses preuves, cette approche s'est vue complétée par une deuxième tendance qui veut, en plus, prendre en considération la qualité du support reçu. Enfin, dans la dernière et plus actuelle étape de recherche, c'est la dynamique des ressources sociales qui importe. Il s'agit alors d'étudier diverses caractéristiques formelles des réseaux (étendue, densité, accessibilité, etc.) afin de les mettre en relation avec les processus de support et de résolution de problèmes.

Un autre facteur, relié à l'environnement de l'individu ayant subi un traumatisme accidentel de la moelle épinière, peut se rapprocher du support social en tant que support parental: il regroupe les attitudes et comportements des parents envers l'enfant. Bien que rarement nommés comme tel, ces attitudes et comportements constituent des indices qui permettent d'évaluer le support social donné à l'enfant par des personnes bien spécifiques qui sont ses parents ou leurs substituts. Pour l'adulte, il sera alors question de support parental antérieur, en ce sens qu'il a été donné ou non durant l'enfance et l'adolescence; il s'agit de l'évaluation actuelle d'un phénomène ayant eu lieu dans le passé.

Quels sont donc ces comportements et attitudes que les enfants doivent subir ou encore qu'ils se réjouissent de voir apparaître au sein de leur relation avec leurs parents? Un moyen de les définir ou du moins d'en délimiter l'étendue est de décrire deux concepts qui servent souvent de limites extrêmes entre lesquelles s'échelonnent une multitude de manifestations de la part des parents envers leurs enfants. Ces concepts sont la surprotection et le rejet. Osterrieth (1967) les illustre en parlant de situation où l'amortissement des pressions extérieures est soit insuffisant (le rejet) ou soit exagéré (la surprotection) par rapport aux moyens dont l'enfant dispose déjà pour y faire face.

Symonds (1939) brosse une image de l'enfant rejeté: celui-ci n'est pas accepté par son père ou sa mère et en conséquence ne reçoit pas les soins, l'affection et la protection nécessaires; concrètement, le rejet peut se manifester alors par les comportements typiques suivants: les parents n'ont pas de temps et ne manifestent aucun intérêt pour l'enfant, ils ne l'aident et ne le soutiennent aucunement mais vont plutôt le blâmer, le punir ou encore le ridiculiser.

Qu'est-ce qui peut pousser des parents à rejeter leur enfant? Précisons d'abord que même si de nombreuses personnes considèrent naturel le fait d'accepter son enfant, de lui prodiguer des soins et d'assurer sa protection tandis qu'il leur semble contre nature de le rejeter, il s'agit pourtant d'un phénomène tout aussi naturel qui peut arriver, lui aussi, en certaines circonstances (Bolton, 1983). Certaines personnes ne peuvent, en effet, accepter cette relation parent-enfant, ce qui se traduit par l'incapacité de répondre aux besoins d'attachement instinctifs de l'enfant. Osterrieth (1967) retrace les théories qui sont énoncées le plus souvent en vue d'expliquer le rejet parental. Premièrement, le rejet pourrait s'avérer une conséquence de l'identification des parents à leurs propres parents. Comme c'est le cas pour de nombreux phénomènes, dont la violence, les parents auraient alors tendance à démontrer les mêmes comportements que leurs propres parents, c'est ainsi que de génération en génération nous assisterions au rejet de l'enfant par le parent qui, lui-même, a été rejeté dans son enfance. Une deuxième théorie vient plutôt illustrer le point de vue contraire, c'est ainsi que le rejet devient une attitude réactionnelle de la part des parents: ceux-ci se trouvent donc à réagir contre l'attitude surprotectrice que leurs parents ont démontrée envers eux. D'autres théories nous ramènent à des explications plus actuelles, soit le fait que l'enfant devienne le bouc émissaire parfait en cas de conflits conjugaux sérieux, ou encore les cas où celui-ci devient un symbole désagréable comme cela peut arriver s'il est perçu en tant que celui qui a causé une diminution de la liberté ou de l'aisance matérielle.

Devant un tel tableau faisant partie d'un contexte principalement axé sur le rejet parental, nous sommes portés à vouloir explorer le concept de surprotection parentale, peut-être avec l'espoir d'y trouver quelque consolation ou compensation. Selon Kolb (1973), la surprotection de la part des parents est plus fréquente que la négligence mais, hélas, cause les mêmes effets néfastes, c'est-à-dire rend l'enfant dépendant, immature et dans la majorité des cas, hostile.

Celui-ci est couvé, il est maintenu dans un univers factice où il ne rencontre guère d'exigences ou de menaces, ce qui augmente son niveau de dépendance naturelle (Osterrieth, 1967). Pour Fitz-Simons (1935), l'enfant surprotégé a droit à une indulgence excessive de la part de ses parents qui ont tendance à se séparer le moins possible de lui, à le gâter, à le valoriser à l'extrême et à le protéger contre tout risque, que ce dernier soit actuel, potentiel ou inexistant. Cette surprotection amène les enfants à être anxieux du fait que tout risque est, la plupart du temps, exagéré à l'extrême par les parents surprotecteurs. Call appuie également sur le fait que l'anxiété prédomine chez un enfant surprotégé, ce qui sera facilement observable lorsque celui-ci vivra des situations nouvelles (1980).

Une constatation des plus intéressantes faites par Osterrieth (1967) en ce qui a trait à la surprotection parentale concerne ses causes possibles. Une

analyse d'études consacrées à ce sujet lui a permis de démontrer que les causes possibles de surprotection parentale sont très semblables à celles du rejet parental. On y retrouve donc encore les théories d'identification parentale et d'attitude réactionnelle face aux parents; de plus, la surprotection peut être vue comme une réaction inconsciente à une attitude hostile envers l'enfant ou encore découler d'une composante anxieuse du caractère du parent qui ne peut alors supporter le moindre risque pour son enfant.

Cette analyse du rejet parental et de la surprotection parentale nous amène à en conclure que ces deux attitudes, qui peuvent nous apparaître opposées au départ, ne sont pas aussi indépendantes l'une de l'autre (Wattier, 1955). La surprotection et le rejet apparaissent plutôt comme deux expressions d'une même incapacité profonde ou encore d'un refus de prendre l'enfant au sérieux, de l'accepter pour ce qu'il est vraiment et de lui donner toutes les chances d'exploiter efficacement ses possibilités. Des similitudes entre les enfants rejetés et les enfants surprotégés sont clairement posées par Osterrieth (1967) à partir des études de Coulon-Allègre (1956), Osterrieth et Rahier (1954) et Rahier-Cambier (1953) et sont présentées comme suit:

1. Égocentrisme et incapacité à se détacher de soi-même.
2. Évitement du contact avec la réalité et tendance à se réfugier dans la rêverie et l'imaginaire.
3. Difficultés dans le contact social avec les pairs.
4. Passivité, manque d'initiative, incapacité à se défendre.
5. Sentiments d'infériorité et de non-valeur.
6. Dépendance et tendance à "rester petit".
7. Manque d'intérêt pour l'avenir.

Hypothèses

Les hypothèses formulées relatives aux facteurs de l'environnement sont:

1. Il existe une relation positive entre la mesure de réseau de support social et le niveau d'estime de soi de l'individu atteint de paraplégie ou de quadriplégie.
2. Il existe une relation positive entre les résultats de la dimension caring de l'instrument de support parental antérieur et le niveau d'estime de soi de l'individu atteint de paraplégie ou de quadriplégie.
3. Il existe une relation négative entre les résultats de la dimension surprotection de l'instrument de support parental antérieur et le niveau d'estime de soi de l'individu atteint de paraplégie ou de quadriplégie.

Méthode

Échantillon et collecte de données

L'échantillon et la procédure de collecte de données ont été décrits dans un article précédent (Gagnon, 1990). Rappelons le profil des 135 participants: sujets en majorité de sexe masculin (80,7%) âgés de 20 à 59 ans ($x = 32,6$ ans) étant paraplégiques (54,8%) ou quadriplégiques (45,2%) depuis au moins deux ans ($x = 9,5$ ans).

Instruments de mesure

Le *Arizona Social Support Interview Schedule* (ASSIS), version française modifiée (Gagnon, 1988) a été utilisé comme instrument de mesure du support social. L'ASSIS a été développé en anglais par Barrera en 1980 en vue d'évaluer le réseau de support social dont bénéficie tout individu. Il permet d'identifier les personnes qui apportent du support sous les formes spécifiques suivantes.

1. La facilitation de l'expression de sentiments personnels.
2. L'aide matérielle.
3. Les informations et les conseils.
4. La rétroaction positive.
5. L'assistance physique.
6. La participation sociale.

Deux questions ont été développées pour chacune de ces formes de support social afin que les sujets identifient les membres de leur réseau de support potentiel et ceux de leur réseau de support actuel (support reçu depuis le dernier mois). Les sujets doivent aussi évaluer leur besoin actuel de support face à chaque forme de support ainsi que la satisfaction éprouvée face au support reçu dans chacune durant le dernier mois. Une autre dimension de l'instrument de mesure constitue l'identification des individus qui s'avèrent être des sources de conflits interpersonnels pour le sujet.

La validité et la fidélité de l'ASSIS ont été démontrées par Barrera (1980) et Barrera, Sandler et Ramsay (1981) tandis qu'une telle démarche a été effectuée par Lepage (1984) en ce qui concerne la version française. Cette version française de Lepage a dû être légèrement modifiée pour cette étude car Lepage avait adapté l'instrument de mesure pour une population spécifique (mères ayant un jeune bébé). La version utilisée pour cette étude se rapproche donc davantage de l'instrument de mesure original de Barrera.

Le *Parental Bonding Instrument* (PBI), version française (Gagnon, 1988) a été utilisé comme instrument de mesure du support parental antérieur. Le

PBI a été développé en anglais par Parker, Tupling et Brown (1979). Il s'avère l'un des rares instruments qui évaluent la perception des caractéristiques parentales à avoir subi avec succès des épreuves de fidélité et de validité (Parker, 1983). Le PBI contient 25 items qui représentent différents comportements ou attitudes que les parents peuvent avoir face à leurs enfants. Ces items sont classifiés selon deux dimensions:

1. Une dimension *caring*, c'est-à-dire soins, attention et implication (dimension 1:12 items);
2. Une dimension contrôle et surprotection (dimension 2:13 items).

Les réponses des sujets au PBI sont données sur une échelle de Likert; le sujet doit répondre au questionnaire selon les souvenirs qu'il a des comportements ou attitudes de ses parents envers lui, durant ses 16 premières années de vie. Lors de l'entrevue, le questionnaire a été administré à deux reprises afin de permettre de rapporter séparément les comportements ou attitudes du père et ceux de la mère ou encore de leur substitut.

Analyse statistique

L'analyse des données a été effectuée au moyen du programme informatisé LISREL VI (Linear Structural Relationships: Jöreskog et Sörbom, 1984). Cette technique et ses avantages ont déjà été présentés (Gagnon, 1990), tout comme la justification de la réduction des données.

Nous allons maintenant expliquer de quelle façon s'est effectuée cette réduction de données pour les variables "support social" et "support parental antérieur".

Le support social

La mesure de réseau de support social contient trois aspects distincts: la taille du réseau, l'évaluation des besoins et la satisfaction du support reçu. La taille du réseau est évaluée autant pour le réseau de support potentiel que pour le réseau de support actuel tandis que l'évaluation des besoins et la satisfaction du support reçu ne concernent que le réseau de support actuel.

La taille du réseau de support social actuel. La taille du réseau de support social actuel n'a pas été retenue comme variable illustrant, dans cette étude, le support social. Dans le but prioritaire d'effectuer une réduction des données, il a été jugé préférable de conserver la dimension qualitative qu'est la satisfaction du support reçu. En effet, nous pensons que cette décision s'explique rationnellement par le fait qu'il soit plus important d'être satisfait du support social reçu, quel que soit le nombre de personnes à le fournir, que d'avoir un nombre considérable de personnes qui contribuent à apporter du support sans que le sujet soit satisfait pour autant de l'impact de ce support.

De plus, lors des entrevues, l'investigatrice et son assistante ont remarqué que, la plupart du temps, les mêmes personnes étaient nommées dans l'évaluation de la taille du réseau de support social actuel et dans l'évaluation du réseau de support social potentiel; comme cette dimension quantitative est la seule à avoir été évaluée en ce qui concerne le réseau de support social potentiel, elle a été conservée aux fins d'analyse et reflétera, d'une certaine manière, la dimension également quantitative de la taille du réseau de support social actuel.

La satisfaction du support reçu face aux besoins de support perçus. La dimension du support social actuel privilégiée dans cette étude, c'est-à-dire la satisfaction du support reçu, a été jumelée à la perception par le sujet de ses besoins de support. Cette opération, appelée une pondération, permet de considérer une deuxième dimension dans le but d'effectuer une évaluation plus juste de la dimension première. C'est ainsi que la satisfaction éprouvée face au support reçu prendra aussi en considération la quantité des besoins ressentis (multiplication des deux scores obtenus). Nous voyons ainsi une énorme différence entre le sujet qui serait peu satisfait du support social reçu face aux nombreux besoins qu'il perçoit et celui qui déclarerait être peu satisfait du support social reçu face à des besoins très minimes.

Après avoir obtenu cette valeur (satisfaction x besoins) pour chaque fonction de support, une analyse en composantes principales a permis de faire ressortir les principaux facteurs sous lesquels ces valeurs peuvent être regroupées. Ce sont ce que nous pouvons concevoir comme la satisfaction des besoins de "support moral" qui explique 29,8% de la variance et la satisfaction des besoins de "support physique" qui explique 19% de la variance. Le tableau 1 illustre les résultats de l'analyse en composantes principales.

Tableau 1
Analyse en composantes principales: Support social actuel

Items (fonctions)	Saturation	
	Satisfaction des besoins de support moral	de support physique
Expression sentiments	0,732	-0,042
Aide matérielle	0,292	0,369
Informations-conseils	0,719	0,232
Rétroaction positive	0,716	0,026
Assistance physique	-0,067	0,804
Participation sociale	0,072	0,654
Variance expliquée	29,8%	19,0%

Le support social potentiel. L'instrument de mesure investiguait uniquement la taille du réseau de support social potentiel pour chacune des fonctions de support ainsi que les interactions négatives. Ce réseau de support a été divisé en deux catégories selon sa composition: famille et autre que famille. Une analyse en composantes principales a permis de faire ressortir les principaux facteurs sous lesquels peuvent être regroupées les catégories du réseau de support social potentiel. Ce sont le réseau "autre que la famille" qui explique 29% de la variance, le réseau "famille en ce qui concerne le support moral" qui explique 17,8% de la variance, le réseau "famille en ce qui concerne le support physique" avec 8,7% de la variance expliquée et enfin le réseau "d'interactions négatives" potentielles avec 7,7% de la variance expliquée. Le tableau 2 illustre les résultats de l'analyse en composantes principales.

Tableau 2

Analyses en composantes principales: Taille du réseau de support potentiel

Items (fonctions)	Réseau autre que famille	Saturations		Réseau général d'interaction négatives
		Réseau famille Support moral	Support physique	
Expression sentiments:				
Famille	0.736	<u>0.746</u>	0.343	0.084
Autre	<u>0.733</u>	0.090	0.005	0.232
Aide matérielle:				
Famille	0.041	0.081	<u>0.877</u>	-0.014
Autre	<u>0.691</u>	0.039	0.340	-0.264
Informations-conseils:				
Famille	0.113	<u>0.720</u>	0.350	-0.250
Autre	<u>0.651</u>	0.256	0.152	0.219
Rétroaction positive:				
Famille	0.064	<u>0.886</u>	-0.099	0.073
Autre	<u>0.721</u>	0.174	-0.154	0.186
Assistance physique:				
Famille	0.095	0.500	<u>0.517</u>	0.067
Autre	<u>0.750</u>	-0.028	-0.111	-0.062
Participation sociale:				
Famille	0.018	0.436	<u>0.699</u>	0.186
Autre	<u>0.715</u>	-0.060	0.351	-0.013
Interactions négatives:				
Famille	0.003	0.047	0.089	<u>0.784</u>
Autre	0.389	-0.048	-0.003	<u>0.520</u>
Variance expliquée				
	29.0%	17.8 %	8.7%	7.7%

Le support parental antérieur

L'instrument de mesure permettait d'évaluer deux dimensions distinctes (*caring* et surprotection) pour chacun des deux parents, ce qui constitue, en fait, quatre échelles de mesure. Des corrélations effectuées entre ces quatre échelles ont démontré qu'il n'existe pas de lien entre les dimensions *caring* et surprotection mais que les comportements des deux parents sont reliés. Suite à ces conclusions, les dimensions *caring* et surprotection ont donc été conservées mais elles seront considérées face à une seule échelle parentale, échelle constituée par la moyenne des scores maternels et paternels. Le tableau 3 illustre les corrélations entre les différentes échelles de l'instrument de support parental antérieur.

Tableau 3

Corrélations entre les sous-échelles de support parental antérieur

	Surprotection paternelle	<i>Caring</i> maternel	Surprotection maternelle
<i>Caring</i> paternel	0,125 p=0,159	0,572 p=0,001	0,086 p=0,329
Surprotection paternelle		0,106 p=0,230	0,631 p=0,001
<i>Caring</i> maternel			0,182 p=0,035

Le tableau 4 présente une vue d'ensemble de la composition des variables suite à la réduction des données.

Résultats

Les résultats ici présentés sont ceux qui découlent directement de l'influence démontrée par les deux variables traitées dans cet article: le support social et le support parental antérieur. Ils sont complétés par l'énumération des relations significatives ayant émergé entre ces deux variables et les différentes variables-contrôle.

Tableau 4*Composition des variables suite à la réduction des données*

Variable	Dimension(s) retenue(s)	Abréviation aux fins de représentation schématique
Support social		
Actuel	Satisfaction des besoins de support moral	SATMOR
	Satisfaction des besoins de support physique	SATPHY
Potentiel	Réseau autre que la famille	AMIS*
	Réseau famille pour support moral	FAMMOR
	Réseau famille pour support physique	FAMPHY
	Réseau d'interactions négatives	NEGA
Support parental antérieur	<i>Caring</i>	CARE
	Surprotection	OVER
Estime de soi	Score global d'estime de soi	J**
Réactions de <i>coping</i>	Habiletés de <i>coping</i> générales	COPING 1
	Habiletés de <i>coping</i> d'évitement	COPING 2
Qualité de vie	Score global de qualité de vie	QVIE

* Ainsi nommé car ce réseau est principalement constitué d'ami(e)s.

** Tel que spécifié par Fitts (1965).

Le modèle cinq (5) constitue le résultat final du processus d'analyse; les résultats du test effectué sur ce modèle final sont illustrés schématiquement par la figure 2. Nous y retrouvons deux relations significatives engendrées par la variable "satisfaction de besoins de support moral": celle la reliant à l'activité (-0,261: cette satisfaction favorise l'activité) et aux habiletés générales de *coping* (*coping* 1: 0,309: cette satisfaction favorise l'utilisation de ces habiletés de *coping*). De plus, deux relations significatives sont initiées par la dimension *caring* de l'instrument de support parental antérieur: celle la reliant à l'estime de soi (0,360) et à la qualité de vie (0,285).

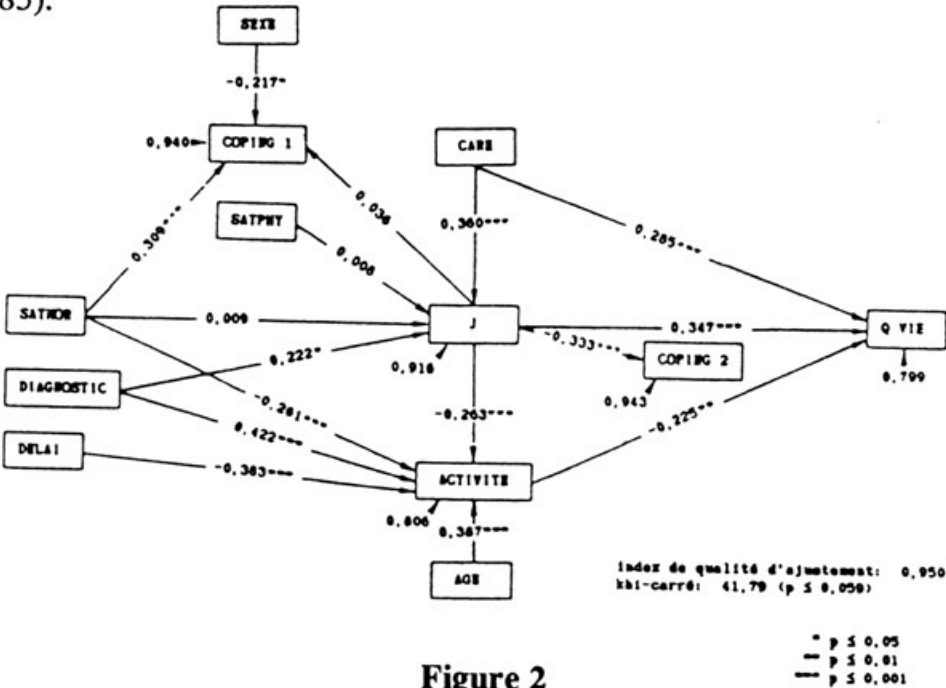


Figure 2
Test du modèle final (5)

Verification des hypotheses relatives aux facteurs de l'environnement

1. Il existe une relation positive entre la mesure de réseau de support social et le niveau d'estime de soi de l'individu atteint de paraplégie ou de quadriplégie.

Cette hypothèse est infirmée car aucune relation significative n'a été établie entre ces deux variables.

2. Il existe une relation positive entre les résultats de la dimension *caring* de l'instrument de support parental antérieur et le niveau d'estime de soi de l'individu atteint de paraplégie ou de quadriplégie.

Cette hypothèse est confirmée par l'existence d'une relation significative entre ces deux variables (0,360; p<0,001).

3. Il existe une relation négative entre les résultats de la dimension sur-protection de l'instrument de support parental antérieur et le niveau d'estime de soi de l'individu atteint de paraplégie ou de quadriplégie.

Cette hypothèse a été infirmée par l'absence de relation significative entre ces deux variables lors de l'évaluation des trois premiers modèles. Ce fait a entraîné la disparition de la variable surprotection lorsqu'il a été nécessaire d'effectuer une réduction des variables, ce qui explique qu'elle n'apparaisse pas dans les modèles 4 et 5.

Discussion

Le support social est un concept qui a soulevé l'intérêt de nombreux chercheurs, depuis plusieurs années déjà. Comme le souligne Roberston (1987) il n'existe pas de consensus, même face à la définition du support social; voilà peut-être un facteur contributif aux résultats parfois contradictoires obtenus dans les recherches qui s'y intéressent.

C'est ainsi que Cassel (1976) et Henderson (1977) situent l'impact le plus important du support social en tant qu'effet modérateur sur les conséquences néfastes du stress, tandis que Garrity, Somes et Marx, 1977 et Miller, Ingham et Davidson, 1976 ne supportent pas ces conclusions par les résultats qui découlent de leurs études. D'autres auteurs soutiennent que la relation incluant stress, support social et réactions de *coping* prendrait un visage différent selon qu'il s'agisse de maladies physiques ou encore de symptômes psychologiques (Andrews, Tennant, Hewson & Schonell, 1978), le support social, entre autres, étant peut-être davantage pertinent lorsqu'il s'agit de santé mentale.

Une autre facette du support social se dévoile lorsqu'il s'agit de décider sous quel aspect nous devons le considérer. Est-ce la grandeur du réseau de support qui importe ou encore son efficacité? Cette question est beaucoup plus complexe qu'il n'y paraît mais certains auteurs ont pris position en suggérant que la qualité du support des relations émotionnelles est plus importante que la quantité de support disponible (Chan, 1977; Henderson, 1977; Schaefer, Coyne & Lazarus, 1981).

Ce fait semble être ressorti de la présente étude car la seule catégorie de support ayant un impact significatif prend en considération la satisfaction du support reçu face aux besoins de support éprouvés. Il ne s'agit plus dès lors de considérer l'accumulation de ressources potentiellement ou effectivement supportives mais bien de comptabiliser la valeur réelle de telles ressources, par rapport aux besoins individuels en constant changement.

Dans la littérature portant sur le support social, il est souvent fait mention de l'estime de soi. Ainsi, une étude de Muhlenkamp et Sayles (1986) rapporte que le support social exercerait une influence indirecte sur des indicateurs positifs du mode de vie, à travers son influence directe sur l'estime de soi. Cependant dans la présente étude, aucune influence du sup-

port social n'est rapportée sur l'estime de soi et cette conclusion peut s'expliquer, à notre avis, par la situation particulière des sujets de cette étude. Voyons donc en quoi ils se distinguent et comment ce fait peut influencer les rapports mettant en cause les concepts de support social et d'estime de soi.

McNett (1987) a effectué une étude auprès de 50 sujets utilisant un fauteuil roulant (20 quadriplégiques, 24 paraplégiques et 6 individus victimes d'un accident vasculaire cérébral), étude qui a permis, par l'émergence de résultats inattendus, de faire ressortir certains faits caractéristiques reliés à ce genre de population. Pour appuyer sa conclusion qui stipule que l'utilisation de support social n'a pas d'effet direct significatif sur l'efficacité des réactions de coping, McNett avance l'importance du coût associé à l'utilisation du support social pour une population telle que la sienne. La population de la présente étude, tout comme celle de McNett, reflète bien l'existence d'un tel processus. En effet, les individus affligés d'une incapacité physique fonctionnelle vivent l'inégalité de l'échange, en ce qui concerne le support social, entre les personnes ressources (celles qui donnent du support) et eux-mêmes qui bénéficient d'un tel support (McNett, 1987). A ce sujet, Roberston (1987) affirme qu'il faut tenter de résoudre les aspects d'équité et de réciprocité concernant le soutien, sinon nous assisterons à la destruction des liens émotifs par le détachement graduel des membres de la famille, les uns envers les autres. L'inégalité entre celui qui reçoit et ceux qui donnent le support a plusieurs conséquences qui ne rendent pas la situation plus satisfaisante d'un côté que de l'autre. En effet, pour sa part, l'individu qui est diminué au point de vue fonctionnel se sent toujours débiteur face à ceux qui l'aident, que ce soit d'une façon ou d'une autre. Notre société est ainsi faite qu'il est normal de s'entr'aider, principe qui implique que tôt ou tard les services reçus soient rendus, directement ou indirectement. D'un autre côté, le cheminement quasi unidirectionnel du support social contribue à épuiser plus ou moins rapidement les personnes qui le fournissent, ce qui peut se traduire concrètement par l'existence de frustrations, de symptômes, de maladies même, conditions idéales au surgissement de conflits interpersonnels (Roberston, 1987).

Dans une étude effectuée avec des sujets paraplégiques, Cogswell (1977) a découvert que mettre fin à une relation peut s'avérer un moyen plus efficace de promouvoir le *coping* que d'essayer, par exemple, d'en établir de nouvelles. Pourquoi? C'est que lorsqu'ils essaient de se faire de nouveaux amis, ces individus, souffrant d'une incapacité fonctionnelle, cherchent à compenser celle-ci en choisissant quelqu'un qui leur est inférieur d'une façon ou d'une autre (niveau socio-économique, intelligence, beauté...). Ils se trouvent ainsi à contrebalancer les implications négatives de leur incapacité.

Ces derniers arguments, soit celui du coût attribuable à l'acceptation du support social et la rationalisation concernant l'établissement de nouvelles relations sociales sont, à notre avis, grandement impliqués lorsqu'il s'agit de commenter les résultats de cette étude. Dans le modèle final (figure 2), nous ne retrouvons qu'une variable ayant trait au réseau de support social de l'individu (la satisfaction éprouvée face au support en ce qui concerne les besoins d'ordre moral) et celle-ci n'a aucun lien direct avec l'estime de soi ou encore la qualité de vie de l'individu.

Finalement les résultats ici commentés, résultats qui illustrent le peu d'influence du support social, peuvent être reliés à la situation même des sujets. La littérature s'est en effet peu souciée de faire une différence entre les événements de la vie qui impliquent en eux-mêmes une perte de support (divorce, décès) et les autres. La situation de l'individu devenu brusquement paraplégique ou quadriplégique peut s'apparenter aux situations stressantes impliquant en soi une perte de support; l'individu doit changer tellement de choses dans sa vie qu'il perd automatiquement contact avec certaines personnes, plusieurs de celles-ci ayant pu s'avérer, antérieurement, d'importantes sources de support pour lui. Nous convenons alors facilement qu'il devient plutôt difficile de trancher entre une perte de support, un manque de support et l'inefficacité de celui-ci. Jusqu'à quel point ce manque d'efficacité est-il ou non relié à l'événement ayant induit la perte de support?

Revenons maintenant à la dimension du support social qui démontre, par les résultats de cette étude, un impact positif sur l'utilisation des habiletés générales de *coping* et sur le niveau d'activité. Il s'agit d'une variable que nous avons nommée "satisfaction des besoins de support moral"; elle est issue du support social actuel et regroupe la satisfaction éprouvée face aux formes de support moral, c'est-à-dire qui ne sont pas directement reliées à des activités physiques ou à de l'aide matérielle. Il s'agit plutôt des catégories de support suivantes: expression de sentiments personnels, informations et conseils ainsi que rétroaction positive. Le niveau de satisfaction éprouvée a été calculé face à la quantité de besoins ressentis.

Comment expliquer le fait que ce soit plutôt la satisfaction face aux besoins d'ordre moral qui semble prédominante? Il s'agit d'un phénomène qui est relié aux services que reçoivent les individus souffrant d'une incapacité fonctionnelle. En effet ils bénéficient, pour la plupart, des services d'un préposé en ce qui concerne leurs besoins physiques les plus importants (soins d'hygiène, traitements lorsque maladie passagère) et parfois même pour l'entretien du lieu d'habitation. Ces services sont donnés par le Centre local de services communautaires ou par des organismes de soins à domicile. Par contre, tout ce qui concerne les besoins autres que ceux d'ordre purement physique ou matériel n'incombe à personne en particulier et, de ce fait, prend une place plus importante au sein des échanges entre l'individu et son réseau de support social.

Les solutions aux préoccupations d'ordre moral, social ou psychologique ayant souvent tendance à être moins claires et moins bien définies que lorsqu'il s'agit de problèmes davantage matériels, il est logique de penser que de telles préoccupations peuvent empêcher l'individu de fonctionner adéquatement ou, du moins, selon ses habitudes. La contribution du réseau de support social devient alors primordiale, tout comme nous le démontre cette étude, surtout si ce réseau constitue la ressource unique, sinon privilégiée par l'individu. Une contribution positive de la part du réseau de support social permettra alors à l'individu de réagir en vue de rétablir sa situation (habiletés générales de *coping*), ce qui, simultanément, amorce une période d'activité (implication, diminution de l'apathie...).

En ce qui concerne le support parental antérieur, la dimension *caring* démontrée par les parents envers l'individu dans son enfance s'avère ici importante car elle a un impact significatif sur le niveau d'estime de soi ainsi que sur la qualité de vie de cet individu.

Janis (1958) affirme que lors d'un événement où l'individu se sent lésé injustement, se sent victime en quelque sorte, celui-ci réagira de façon bien spécifique. En effet, se produira alors l'activation de structures profondes de la personnalité et, de ce fait, le retour à des mécanismes d'adaptation acquis et mis en pratique bien antérieurement, c'est-à-dire dans l'enfance. Ce phénomène a été remarqué par Guttman (1976) chez des individus ayant subi un traumatisme de la moelle épinière. Il est également relevé par Orbaan (1986) lorsqu'il parle du retour à un mode de réaction ayant appartenu à un stade antérieur de développement de la personnalité.

Une telle constatation nous sensibilise à l'importance de phénomènes faisant partie du passé et nous ramène, plus ou moins directement, au rôle des parents lorsqu'il est question du développement de l'enfant. La dimension *caring* de l'attitude des parents envers leurs enfants sous-entend les concepts d'affection, de chaleur émotionnelle et d'empathie (Parker, 1983); une absence de *caring* étant illustrée, d'après cet auteur, par des comportements ou des attitudes qui reflètent de la froideur et de l'indifférence, le tout allant même jusqu'au rejet.

Bowlby (1979) relève une forte relation entre l'expérience que l'enfant vit avec ses parents et la capacité future de celui-ci à s'engager émotionnellement. Les parents devraient comprendre les comportements d'attachement de leur enfant, répondre à ses besoins d'amour et d'attention, mais également respecter le désir légitime de l'enfant lorsqu'il s'agit de l'établissement et de l'exploration de relations inter-personnelles avec ses pairs ou encore d'autres adultes. Il s'agit en fait d'un juste équilibre entre dépendance et indépendance, d'un dosage équilibré qui, selon Bowlby, éviterait à l'enfant de devenir anxieux, insécurité et dépendant, conditions qui, lors d'un stress, le

prédisposent à réagir de façon inappropriée et à manifester des symptômes névrotiques. De plus, toute attitude extrémiste de la part des parents (surprotection aussi bien que rejet) engendre chez l'enfant des sentiments d'infériorité, une perte de confiance en soi, de l'apathie et de la passivité (Osterrieth, 1967; Parker, 1983). En faisant référence à l'enfant surprotégé, Bentovim (1972) affirme qu'il est incapable de réagir au stress inhérent à son développement, tandis que l'enfant rejeté décrit par Osterrieth (1967) se sent impuissant et démuné devant l'univers. Face à ces similitudes entre enfants rejetés et surprotégés, nous pouvons en conclure qu'ils en sont tous profondément touchés en ce qui concerne leur adaptation psychologique.

La dimension *caring* que nous pouvons évaluer dans les attitudes et comportements des parents envers leurs enfants, ou du moins dans la perception que ces derniers en ont eue, s'avère donc une solution à préconiser. L'enfant est ainsi aimé, encadré, mais il n'y perd pas toute liberté. Il s'agit plutôt d'une relation qui exploite tout le potentiel des différents partenaires. Chacun d'eux apporte beaucoup mais permet à l'autre de s'exprimer et ainsi, reçoit tout autant qu'il apporte.

Une telle relation s'avère gratifiante et permet à l'enfant, entre autres, de mettre à contribution toutes ses ressources. Il se sent ainsi valorisé et devient de plus en plus apte à vivre pleinement, avec tout ce que cela implique.

Il n'est donc pas surprenant de réaliser, grâce aux résultats de cette étude, que les individus ayant eu des parents qui étaient sensibles à cette dimension *caring* des relations parents-enfants, bénéficient d'un niveau plus élevé d'estime de soi et affirment avoir une qualité de vie meilleure. Cependant, la dimension surprotection des attitudes et comportements des parents n'a pas démontré d'impact significatif lors des premières analyses (modèle initial, 2 et 3), ce qui explique que nous ayons dû la mettre de côté lors de l'importante réduction de variables effectuée.

Conclusion

Le support social et le support parental antérieur ont été investigués dans cette étude et se sont avérés, sous certains aspects, jouer un rôle positif pour l'individu ayant subi un traumatisme accidentel de la moelle épinière. Une telle investigation a permis de faire ressortir la complexité de ces concepts et, surtout, de fournir des pistes explicatives face à certaines constatations qui peuvent paraître surprenantes.

C'est ainsi que la situation même des traumatisés de la moelle épinière peut sans doute débalancer la dynamique du concept de support social (inégalité - inéquité - manque de réciprocité). De plus, cette situation n'engendre-t-elle pas, dès le départ, une perte de support social (éloignement plus ou moins

progressif des personnes significatives étant donné toutes les conséquences de ce changement de vie).

Les résultats obtenus permettent d'orienter des recherches futures face à ces concepts-clés, connus et méconnus tout à la fois, afin d'élargir nos connaissances tant du point de vue méthodologique que clinique ou encore conceptuel. En ce qui concerne le support social, par exemple, il nous semblerait pertinent de l'analyser en profondeur, combinant les recherches quantitative et qualitative. Nous pourrions ainsi établir un parallèle entre la composition du réseau pré et post traumatique, déterminer la dynamique des échanges de support social entre l'individu et les membres de son réseau, analyser de façon phénoménologique les perceptions de l'individu face au support reçu.

Ces interventions, et bien d'autres encore, nous permettraient une meilleure prise de conscience de la situation vécue par les traumatisés de la moelle épinière, étape primordiale vers une action collective concertée et efficace.

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ABSTRACT

Quality of Life in Paraplegics and Quadriplegics: Analysis of environmental variables

Social support and previous parental support were examined in a sample of 135 persons who had sustained a spinal cord injury. The data were analysed using the LISREL technique (Linear Structural Relationships). With regard to the social support variable, a weighting of needs by satisfaction with the "moral support" received is determinant, while the caring dimension of previous parental support is important for self-esteem and the quality of life. The other dimensions of social support and the overprotection dimension of previous parental support did not show any influence. The results suggest an on-going need to enlarge conceptual, methodological and clinical inquiry about these two essential concepts.

KNOWLEDGE AND ATTITUDES OF NURSING STUDENTS AND FACULTY ABOUT AIDS

Debra Gignac and Marilyn H. Oermann

In Canada, as of February 1988, there were 1517 cases of AIDS reported, the first case in 1982. There have been 821 AIDS-related deaths, and an estimated 50,000 to 100,000 Canadians are infected with AIDS (McLeod & Silverthorn, 1988). Eighty-two percent of these cases are male homosexuals and bisexuals (Beaufoy, Goldstone & Riddell, 1988).

Nursing students, along with other health care workers, have been found to be fearful of AIDS patients and unwilling to care for them (Barrick, 1988; Lester & Beard, 1988; Wiley, Heath & Acklin, 1988). Some studies have shown that greater knowledge about AIDS is related to more positive attitudes among health care providers toward AIDS patients (Lawrence & Lawrence, 1989; Turner, Gauthier, Ellison & Greiner, 1988; Wertz, Sorenson, Liebling, Kessler & Heeren, 1987). Nursing students, as future health care providers for the growing number of AIDS patients, should be provided with accurate information about AIDS, as well as be taught procedures to avoid transmission of AIDS. Strategies must also be available for students to explore their feelings about caring for patients with AIDS, and to develop a value system that recognizes the inherent worth and dignity of the individual.

Years of research have been devoted to the study of attitudes and attitude change. Attitudes are conceptualized frequently as consisting of three inter-related components: cognitive, information and related beliefs about the individual or concept; affective, the emotional or subjective feelings that accompany attitudes; and conative, referring to one's stance as to the way in which persons should be treated in specific social contexts (Wrightsmann, 1977, p. 319). These three components of attitudes are significant in teaching students about AIDS and preparing them to work effectively with persons with AIDS. Teaching methods should provide for knowledge acquisition - the cognitive component; examination by each of the students of their emo-

Debra Gignac, M.S.N., R.N. is Sessional Instructor in the School of Nursing, at the University of Windsor, Ontario. Marilyn H. Oermann, Ph.D., R.N. is Associate Professor in the College of Nursing, at Wayne State University, in Detroit, Michigan.

tional or subjective feelings associated with care of the patient, the affective component; and evaluation by the students of their own beliefs and position taken as to the way AIDS patients should be treated in the health care system and society at large. Rosenberg and Hovland (1960) recommended integration of these components in teaching that is intended to improve knowledge and change attitudes.

Using this model in terms of AIDS education, Chitty (1989) proposed that students need essential information about AIDS; opportunities to observe role models, examine their own beliefs and feelings about care of the AIDS patient and engage in other teaching strategies to promote affective learning; and experience in the direct care of AIDS patients. Experience in the care of persons with AIDS, either through clinical practice involving interaction with clients and others in the clinical field or through simulated experiences, provides opportunity for learners to acquire knowledge and more importantly, examine their own values and beliefs as they are involved in care of the client. Experience is essential for students to test out their beliefs and explore their own feelings from a value, ethical or moral perspective as well as cognitive (Reilly & Oermann, 1985, p.237).

Only a few research studies have been conducted with nursing students to determine their knowledge level about AIDS and attitudes towards individuals with AIDS; related research with nursing faculty is even more scarce. The purpose of this study was to examine nursing students' and faculty's knowledge about AIDS and attitudes toward persons with AIDS.

Literature Review

During the past few years, research has been conducted on the knowledge and attitudes toward AIDS of various health care providers: a few of these studies have focused on nursing students.

Lester and Beard (1988) surveyed 177 baccalaureate nursing students; they found that students who are highly fearful of AIDS patients are less willing to care for them and do not want to be assigned to these patients. In spite of the fact that 97% of the students said AIDS patients deserved the same care as any other patient, only 33% were willing to provide that care and 36% reported that they should not be assigned to care for them.

Lawrence and Lawrence (1989) surveyed 182 subjects: 60 registered nurses, 50 baccalaureate nursing students, 42 non-nursing college students and 30 non-nurse adults. The results indicated that registered nurses had more knowledge and more positive attitudes toward AIDS than nursing students. Liberal arts college students had more knowledge and more positive attitudes about AIDS than non-nurse adults; nursing students did not differ

significantly from liberal arts students in their attitudes about AIDS. An additional finding was that nurses prepared at the graduate level had more knowledge and positive attitudes about AIDS than nurses with only entry-level preparation. The study indicated that persons with more knowledge about AIDS had more positive attitudes toward AIDS (Lawrence & Lawrence, 1989, p. 98).

Wiley, Heath and Acklin (1988) surveyed master's, RN-BSN completion and baccalaureate nursing students to determine their appraisals of their own risk of HIV exposure through clinical practice, and their attitudes toward selected issues regarding nursing care of HIV positive patients. Fifty-four percent reported that nurses should be permitted to refuse assignment to these patients. Forty-five percent of the undergraduates, 40% of the RN/BSN and 21% of the master's students stated that they would definitely or probably refuse to care for AIDS patients. All reported concern about exposure and use of precautions to protect themselves. Bowd and Loos (1987), in their study of undergraduate nursing students and registered nurses in Canada, also found that most respondents believed they should be free to choose whether to care directly for an AIDS patient; proportions ranged from 47% for registered nurses to 76% for Year I students.

André (1988) found that 33% of the nurses surveyed would refuse to give care to a patient with AIDS, 36% would not do CPR, and 57% would delay initiating CPR until a protective airway device became available. Blumenfield, Smith, Milazzo, Seropian and Wormser (1987) found similar attitudes among nurses. They reported that less than 20% would do CPR on AIDS patients. Eighty-five percent believed that pregnant nurses should not care for AIDS patients. In ICU, 70% would transfer to another unit if they had to care for an AIDS patient regularly.

With these findings in mind, the following hypotheses were formulated for the study.

1. Nursing students with more knowledge about AIDS will have more positive attitudes toward AIDS patients.
2. Nursing faculty with more knowledge about AIDS patients and experience with them will have more positive attitudes about AIDS.

In the research, "Knowledge" represented information about AIDS, including awareness of the symptoms of AIDS, epidemiology or risk factors associated with the transmission of the virus and precautionary techniques recommended by the Centers for Disease Control in caring for patients with AIDS. "Attitudes" included feelings and beliefs about having to care for at-risk persons, willingness to accept an assignment to care for a patient with AIDS, opinions about whether health care workers should be given the

option to refuse to care for patients with AIDS and perceived risk of contracting AIDS.

Method

A descriptive-correlational design was used; nursing students and faculty who agreed to participate in the research completed an instrument on their knowledge of and attitudes toward AIDS. The population consisted of all four levels of BScN students and nursing faculty at a mid-size urban university in Canada. A total of 166 subjects participated in the research, including 27 Year I nursing students, 46 Year II students, 47 Year III students, 27 Year IV students and 19 nursing faculty. The faculty included both full- and part-time instructors. Full-time faculty were prepared educationally at the master's level with at least half also holding doctoral degrees. Faculty who were part-time had either bachelor's or master's degrees in nursing. The geographic area in which the study was conducted had 63 reported cases of AIDS from 1984 to the present (Windsor-Essex County Health Unit, 1990). Participation in the research was voluntary; confidentiality and anonymity were assured. The study was done in Fall, 1989.

Instrument

The instrument was the "AIDS Knowledge and Attitudes Assess Test" developed by Lawrence and Lawrence (1989) with permitted modifications. Parts I, II and III measure the knowledge component. Part I consists of 27 questions about disease typology, Part II consists of 13 items relating to the application of facts to technical practice and Part III has ten questions relating to communication skills. The questions in Part III reflect an acceptance or rejection of persons with AIDS, based on selected knowledge about AIDS and its effects on the individual. The items are weighted; the most accepting response is given a three and the most rejecting response a zero. Part IV on attitudes toward AIDS consists of 20 items and uses a Likert-type scale with weighted responses: the most positive response is rated a three and the least positive response a zero. This section deals with attitudes and focuses on issues such as AIDS testing and human rights of persons with AIDS. A specific score on the subject's willingness to care for and have contact with persons with AIDS is calculated by using nine questions in the instrument that address this issue.

Three questions in the instrument were modified to update it in terms of statistics related to AIDS, and to make the questions pertinent to Canadians. Two of these questions on characteristics of the population affected by AIDS were updated, according to 1989 statistics. The third question was modified to reflect health care financing in Canada rather than the United States.

Content validity was established by the developers of the instrument. Lawrence and Lawrence (1989) reported that content validity for the Assess Test was determined by a panel of nurse experts with graduate preparation in medical-surgical nursing and psychiatric nursing. All members of the panel had experience with infection control and had worked with persons with AIDS and their families. All experts agreed with the scoring and weighting of the items. Internal consistency was determined using Kuder-Richardson 21. The Kuder-Richardson 21 ranged from .91 to .98 (Lawrence & Lawrence, 1989).

Results

One hundred and sixty-six individuals participated in the study. Nineteen did not provide demographic information, thus 147 cases were used to describe the characteristics of the sample. Forty-one (28%) were under 20 years of age, 83 (56%) were between 21 to 30, 12 (8%) were between 31 to 40 and 11 (8%) were over forty years. One hundred and forty-three (97%) were female and 4 (3%) were male. Religious background included 60 (41%) subjects who were Roman Catholic, 53 (36%) who were Protestant, 3 (2%) who were Jewish and 22 (15%) who indicated other religious groups; nine (6%) subjects had no religious affiliation.

Table 1
Demographic Data

	Year I N%	Year 2 N%	Year 3 N%	Year 4 N%	Faculty N%
Knows a homosexual:					
No	18(72%)	16(48%)	23(52%)	9(33%)	7(41%)
Yes	7(28%)	17(52%)	21(48%)	18(67%)	10(59%)
Knows someone with AIDS:					
No	25(100%)	31(94%)	42(95%)	22(81%)	15(88%)
Yes	0	2(6%)	2(5%)	5(19%)	2(12%)
Knows an IV drug user:					
No	22(88%)	27(82%)	38(86%)	22(85%)	13(76%)
Yes	3(12%)	6(18%)	6(14%)	4(15%)	4(24%)
Taken care of someone with AIDS:					
No	22(92%)	30(91%)	34(80%)	20(74%)	8(47%)
Yes	2(8%)	3(9%)	9(20%)	7(26%)	9(53%)
Read about AIDS:					
No	2(8%)	1(3%)	0	1(4%)	0
Yes	23(92%)	32(97%)	42(100%)	26(96%)	17(100%)

Note. N=147 for demographic data

Seventy-three (50%) subjects knew a person who was a homosexual; only 11 (7%) knew someone personally with AIDS. Twenty-three (16%) of the participants knew someone who used IV drugs. Thirty (20%) subjects had experience caring for someone with AIDS. Most of the respondents (96%) had read literature about AIDS (see Table 1).

For the total sample, the disease typology mean score (Part I) was 16.5 out of a maximum of 27. The technical practice score (Part II) was 7.6 out of a total possible score of 13. The communication skills score (Part III) was 26.2 out of a maximum of 30. These three combined mean scores gave a total knowledge score of 50.6 out of a total score of 70. Faculty had the highest total knowledge score of 54. The attitudes mean score (Part IV) was 38.5 out of a maximum possible score of 60. The willingness to care for or have contact with persons with AIDS mean score was 17.5 out of a possible score of 23 (see Table 2).

Table 2

Means and Standard Deviations of AIDS Assess Test for Total Sample

Area of Test	Maximum Score	M	SD
Disease typology	27	16.5	3.0
Technical practice	13	7.6	1.7
Communication skills	30	26.2	2.7
Total knowledge	70	50.6	5.1
Attitude	60	38.5	5.0
Willingness to care for or have contact with persons with AIDS	23	17.5	2.6

Note. Maximum score=total score possible

Some deficiencies in knowledge of disease typology of AIDS were identified when examining the frequencies of correct and incorrect answers. Only 41% of the sample knew that AIDS was a syndrome of infections and neoplasms. Surprisingly, only 14% knew that anal sex is the highest risk factor for developing AIDS. Sixty-six percent of the respondents reported that it was necessary to isolate AIDS patients from other clients.

In technical practice, only 40% could correctly identify precautions to be taken when doing venipunctures and how to disinfect reusable equipment. Interestingly, as a group, 61% indicated that without hesitation they would do mouth-to-mouth resuscitation on an individual found on the street,

although more than half of the Year II students and faculty reported that they would wait for protective equipment before starting CPR.

Although communication scores were generally high, a mean score of 26.2 out of a possible 30, there were a few areas of note. One question dealt with responding to the concerns expressed by a homosexual that others could tell that he had AIDS. For this question, only 13.8% of the respondents chose an answer that would encourage the person to verbalize his concerns. The other responses discouraged further dialogue. There were no differences between the five groups for this item, which could indicate a general uneasiness among the subjects to deal with the concerns of individuals with AIDS.

In the attitudes section, while 88% of the respondents believed AIDS was not transmitted through social contact, only 74% agreed that people with AIDS should be allowed to go to public schools and colleges. Willingness to care for someone with AIDS was generally high for all five groups. For the sample as a whole, 92.1% reported no reservations about babysitting a baby with AIDS; 5.5% were willing to do so but would question personal risk; and 2.4% of the respondents were unwilling to babysit an infant with AIDS. When asked if a person with AIDS should be allowed to use public facilities, 65.6% of the sample responded that the person should always be allowed to use public washrooms, but 35.4% had reservations about this practice.

Pearson r was used to examine relationships between the knowledge and attitude scores. The total knowledge mean score, consisting of the three combined scores for Parts I to III of the instrument, was used for the analysis. A significant relationship, although weak, was found between knowledge and attitudes for the total sample ($r=.15$, $p<.05$). Subjects with more knowledge about AIDS expressed more positive attitudes toward persons with AIDS.

Chi-square test was used to examine relationships among selected demographic variables. A relationship was found between knowing a homosexual and age ($\chi^2=17.99$, $df=4$, $p=.001$), taking care of a person with AIDS and age ($\chi^2=11.62$, $df=4$, $p<.05$) and taking care of a person with AIDS and level of student within the nursing program ($\chi^2=16.60$, $df=4$, $p=.002$). Older participants, students in upper levels of the nursing program, and faculty were more likely to know a homosexual and to have taken care of someone with AIDS. Other relationships were not statistically significant.

Differences in scores on knowledge, attitude and willingness to care for or have contact with a person with AIDS for subjects who knew a homosexual, knew someone with AIDS and cared for someone with AIDS and those who did not were examined with t tests. Subjects who knew a homosexual had significantly higher total knowledge scores than those who did not ($t=2.08$, $df=119$, $p=.04$). Similarly, significant differences also existed between the

groups on scores on willingness to care for or have contact with persons with AIDS ($t=2.26$, $df=135$, $p=.03$). Subjects who knew a homosexual reported greater willingness to care for or have contact with persons with AIDS. There were no differences, however, in attitude scores.

Discussion

The hypotheses formulated for this study were partially supported. For the total sample, the mean knowledge score was 50.6 out of a maximum of 70. The mean attitude score was 38.5 out of a total score of 60. A significant relationship was found between knowledge of and attitudes about AIDS. This finding is consistent with a recent study by Lawrence and Lawrence (1989) in which increased knowledge about AIDS was related to more positive attitudes toward AIDS patients.

Knowledge scores for understanding AIDS disease typology (Part I) and technical practice (Part II) were low, with most participants achieving only slightly more than half correct. With communication skills (Part III), subjects' scores were high. With attitudes (Part IV) however, the mean score was relatively low for the sample as a whole and for different levels of students and faculty. The instrument is designed so that higher scores represent more positive attitudes about AIDS. The mean score for willingness to care for or have contact with persons with AIDS was 17.5 out of a maximum of 23. These scores were also consistent across groups.

When examining demographic variables, three relationships were found to be significant. Knowing a homosexual increased with age; having taken care of someone with AIDS increased with both age and level in the nursing program. We expected that experience with homosexuals and persons with AIDS would decrease fears and promote more positive attitudes toward AIDS patients, but this was not supported in the study. Findings revealed significant differences in scores on knowledge and willingness to care for or have contact with persons with AIDS between subjects who knew a homosexual and those who did not. Attitude scores, however, did not differ between these groups nor between subjects who knew someone or cared for someone with AIDS and those who did not. Barrick (1988) suggested that an educational component designed to normalize relations with homosexual patients was central to efforts aimed at increasing nurses' willingness to care for patients with AIDS. This is particularly important in Canada since 82% of all AIDS patients are homosexuals and bisexuals (Beaufoy, Goldstone & Riddell, 1988).

In the nursing program in which the participants were enrolled, a formal lecture of two hours is given on AIDS. Students receive this instruction in the second year of the program. The content of the lecture includes the

epidemiology of AIDS; the effects of AIDS on the client, family, nurse and community; nursing care of the patient and family; prevention and health education; use of support groups; and associated ethical issues. Chitty (1989), in her survey of 366 schools of nursing in the United States, reported that 72% devoted between 1 and 5 hours of didactic instruction to AIDS; the content covered in responding schools was similar to that taught in the nursing program in which this research was conducted. While lecture is appropriate for increasing knowledge about AIDS, it is more than likely ineffective for attitude change. Imperato, Feldman, Nayeri and DeHovitz (1988) reported that a one-hour lecture did not make a significant difference in perception of risks or beliefs relating to the care of AIDS patients.

Along with providing students with information about AIDS and care of the person with AIDS, nursing faculty are faced with the need to assist students in examining their own attitudes toward persons with AIDS and dealing with fears associated with caring for them. Kelly, Lawrence, Hood, Smith and Cook (1988) reported that formal teaching, discussion groups, attitude exercises and the use of mentors are effective methods for changing attitudes. Wertz, Sorenson, Liebling, Kessler and Heeren (1987) recommended lecture followed by a question and answer period to increase both knowledge about AIDS and positive attitudes toward AIDS patients. Other appropriate teaching strategies are value clarification techniques, which enable learners to identify for themselves the values that guide their actions; values inquiry, designed to assist individuals in discovering value and moral dimensions in situations encountered, such as ones involving AIDS patients and families; and discussion of ethical and moral issues related to care of HIV-seropositive patients (Reilly & Oermann, 1985; Wiley, Heath & Acklin, 1988).

In addition to limited content on AIDS in the nursing program, the majority of students and half of the faculty group had no experience in caring for patients with AIDS; only a few students and faculty knew someone who had contracted AIDS. This lack of experience more than likely influenced their attitudes. Clinical practice, other experiences in working with patients with AIDS and simulated learning experiences assist students in acquiring knowledge and provide for affective learning. Direct care of AIDS patients, visits by students to AIDS clinics, home visits, interviews of patients and families, simulations, videotaping and other experiential activities are appropriate strategies for AIDS education. Lev (1986) reported that completion of an elective course in hospice nursing led to decreased fears of death and dying, as well as to fewer avoidance behaviours toward dying, psychiatric, alcoholic and AIDS patients. It was suggested that the clinical component of visits to a dying patient and family may have shifted students' attitudes. A nursing elective on AIDS is an option for schools desiring to emphasize care of this patient population and prepare students for future practice. Regardless

of the teaching strategies selected, more research is needed on the effectiveness of specific teaching methods in AIDS education, particularly in terms of attitude change. Nursing research on affective teaching methods is limited and tends to focus on one-time measurement of attitude change and other related outcomes (Oermann, 1990). Nursing education studies must examine the effectiveness of different teaching methods over time on knowledge and attitudes associated with care of the AIDS patient.

This study was limited to one setting, thereby limiting generalizability. In addition, a convenience sample was used. Participation among Year I nursing students was low, possibly because of the timing of the study.

Further research is needed on the attitudes of nursing students and faculty toward AIDS patients. Continued study on the willingness of students and faculty to work with patients who have AIDS, and variables affecting this, is indicated. There also is a need to examine how best to implement changes in the curriculum to improve attitudes toward AIDS patients of both students and faculty, and acquire the knowledge base needed for care of these patients.

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RÉSUMÉ

Les connaissances et les attitudes des étudiants infirmiers et des enseignants envers le SIDA

Les recherches précédentes ont démontré que les étudiants infirmiers et d'autres professionnels en santé sont souvent craintifs et peu disposés à soigner des patients qui ont le SIDA. Il semble avoir un lien entre les connaissances du SIDA et les attitudes envers les patients qui ont le SIDA. Dans cette étude, les connaissances et les attitudes des étudiants infirmiers et des enseignants envers le SIDA ont été examinées utilisant le *AIDS Assess Test* développé par Lawrence et Lawrence (1989). Il y avait 166 sujets qui ont participé à cette recherche, incluant quatre niveaux d'étudiants infirmiers et enseignants, d'une université canadienne, urbaine, d'importance moyenne. Pour examiner les liens entre les résultats du test d'attitudes, et des connaissances, on a utilisé le Pearson r . Un lien statistiquement significative a été trouvé entre les connaissances des sujets et leurs attitudes envers les patients qui ont le SIDA. L'étude a démontrée le manque de connaissances des étudiants infirmiers et la faculté au sujet du SIDA, les aspects techniques de soin mesuré par le *AIDS Assess Test*; et le lien entre les connaissances et les attitudes. Ceci indique qu'il faut des recherches supplémentaire, particulièrement en ce qui concerne les méthodes d'enseignement pour les étudiants assistants en acquérant les connaissances dont on a besoin pour le soin des patients du SIDA et en développant un système de valeurs pour le soutien des patients et leur famille.

ADOLESCENT GIRLS' PERCEPTIONS OF AND PREPARATION FOR MENARCHE

Barbara-Ann Janes and Janice M. Morse

Menarche is probably the most important event of puberty for girls, marking the turning point in the transition from girl to woman (Brooks-Gunn & Ruble, 1983; Koff, Rierdan & Jacobson, 1981; Rierdan, 1983; Ruble & Brooks-Gunn, 1982). Despite this, little is known about the menarche experience. As a result, adolescent girls may not be as prepared as they could be for such an important life event. This may be because in our culture menstruation is considered private and embarrassing, and communication about the topic is limited.

Some investigators suggest that adequate preparation for menarche may correlate with more positive experiences (Golub & Catalano, 1983). However, Whisnant and Zegans (1975) discovered that, although subjects reported that they were intellectually prepared, they still experienced distress at menarche. Such distress or negative experience with menarche may lead to subsequent menstrual dysmenorrhea (Clark & Ruble, 1978; Woods, Dery, & Most, 1982) and may also have a negative effect on ensuing female sexuality (Rierdan & Koff, 1980). Morse and Doan (1987) examined responses from adolescent girls about their preparation for menstruation and found that many were dissatisfied with the information they received. Negative feelings about menstruation were reported by 69% of their sample and approximately 9% reported that they were unprepared. Further research on perceptions and preparation for menarche was recommended.

The question of who prepares adolescent girls for menarche is a continuing controversy: is it the responsibility of the parents or the school? This was first discussed by Rogers (1953) and is still an issue today, almost forty years later. The literature indicates that the mother is the main source of information, although in the past two decades school health classes have been frequently cited as well. Many believe it is the role of parents to teach maturational development: however, for reasons that include embarrassment, a lack

Barbara-Ann Janes, R.N., M.N. is Community Health Nurse in the Vancouver Health Department, in British Columbia. Janice M. Morse, Ph.D (Nurs), Ph.D. (Anthro) is Professor and MRC/NHRDP Health Scholar in the Faculty of Nursing, at the University of Alberta, in Edmonton.

of knowledge or a poor mother-daughter relationship, the information may not be properly provided. The adolescent girl may have to rely on other sources for information that may also not be adequate and may simply be incorrect.

Although onset of the menstrual cycle is something that every girl experiences, very little research has been done on how adjustment to it affects the daily life of adolescents, and, on how the information received at school and school facilities eases this adjustment. Morse and Doan (1987) found that many Canadian girls perceived the school facilities to be inadequate while they were menstruating; this contributed to feelings of embarrassment.

The main objective of this study was to determine how adolescent girls view the preparation they receive for menarche and how they cope with menstruation in daily life, particularly how they manage menstruation at school. More information will enable community health and school nurses to help adolescent girls feel better prepared for menarche and cope better with menstruation.

Method

Menstruation is usually considered a topic not to be discussed in public, and often communication about it is taboo. There are several problems inherent in the study of menstruation, especially with adolescent girls. For example, giggling in group interviews was noted by Ernester (1977) and, when individual interviews were conducted, the interviewee was frequently teased by other girls (Whisnant & Zegans, 1975). Therefore, we chose a projective technique of data collection, using a paper and pencil questionnaire. Adolescent girls were able to answer the questions in a non-threatening environment, where no one would know how they responded; as well, they did not have to be concerned about "right" responses in front of their peers or the investigator.

The Menstrual Perceptions Research Tool (MPRT) was designed for this study, using (with permission) an adaptation from an open-ended questionnaire previously developed by Koff, Rierdan and Jacobson (1981). It consists of 47 multiple-choice questions and takes 20-25 minutes to complete. This tool has several advantages. First, because there was no structured questionnaire available for the assessment of adolescent attitudes to menarche, the adaptation of adult instruments might have jeopardized validity. Secondly, indepth qualitative studies, when conducted on small samples, yield large amounts of data for analysis; unstructured interviews of large samples would have produced an unwieldy amount of information. Finally, the intimate nature of the topic might have resulted in lost or distorted data in an interview situation. By using the method chosen, participant embarrassment is minimized, and the validity of the results may be increased.

The questions are based on the experiences of a fictitious girl called Ann. The instructions read: *Ann has just started her period for the first time. Please answer the following questions as if you were Ann.* Murstein (1965) suggested that the use of the third person would elicit responses that might otherwise be too threatening. The multiple choice questions are based on the projective technique of sentence completion. The general purpose of sentence completion is to obtain responses from subjects who would be unable or unwilling to recognize or express their feelings and attitudes about a particular topic in direct communication (Murstein, 1965). The sentence stems and responses to the multiple-choice questions were derived from a review of the literature, and, in particular, from a previous qualitative study (Doan & Morse, 1985; Morse & Doan, 1987). From these data, questions were developed that reflected the language used by Canadian adolescent girls when discussing menstruation. Examples of questions were:

When Ann first saw her period she: (please pick one answer)

- ☐ didn't know what it was.
- ☐ knew what it was.

When Ann first saw her period she mostly:

- ☐ felt excited that it had come.
- ☐ didn't think it was any big deal.
- ☐ felt scared, she thought something was wrong.
- ☐ felt disgusted and gross.
- ☐ felt surprised.
- ☐ felt curious, and wondered if this was her period.

The multiple choice questions in the MPRT were grouped into six categories that encompassed the dimensions associated with adolescent perspectives of menstruation (Morse & Doan, 1987). These six categories are: feelings, symptoms, preparation for and coping with menstruation, adequacy of school facilities, and finally, communication about menstruation. A qualitative portion of the questionnaire was composed of four open-ended questions stated using the first person pronoun. As these questions did not relate to personal experience, it was anticipated that the girls would not feel threatened or embarrassed to answer them.

Face and content validity of the MPRT were established by eight experts in the field of menstruation, using the process described by Lynn (1986) for developing an affective instrument. These same experts assessed the clarity and readability of the MPRT, and it was subjected to review by one class of grade six girls during the pretest phase of the study. Based on the input received from these two sources, the questionnaire was revised. Test-retest reliability was conducted for the MPRT with responses from 20 subjects, using a score of 1 if there was an agreement and 0 if there was no agreement;

the proportion of agreement was calculated. Results showed that 60% of the sample had 70% to 83% agreement on their responses for Time One and Time Two; this was considered adequate for the study.

Subjects were girls from middle to upperclass families who resided in an Alberta city with approximately 35,000 people. The sample was obtained from the three Catholic schools in the area. This was a convenience sample, selected because the school board was most receptive to the research project. Inclusion in the study was dependent upon receiving a consent form signed by at least one parent or guardian permitting the daughter to participate. The girls also voluntarily agreed to participate in the study by filling out the questionnaire. Finally, the girls that were included were in grade six, seven, or eight and were able to read and write English.

Results

One hundred and forty-one of the one hundred sixty-six girls who met inclusion criteria participated in the study - a response rate of 85%. Forty-five (31.7%) of the participants were in grade six; 36 (25.4%) were in grade seven; and 60 (42.3%) were in grade eight. The age of the girls ranged from eleven to 14 years with a mean age of 12.4. Seventy-four subjects (52.1%) were pre-menarcheal and 67 (47.2%) were post-menarcheal.

Feelings

Feelings were defined as the reported thoughts and emotions of adolescent girls that are associated with the reaction to and management of menstruation. Two questions assessed Ann's perceived reaction to menarche. "No big deal" was how 30.5% of the sample thought Ann would feel when she experienced her first period. "Surprised" (18.4%) and "curious" (15.6%) were the next two most common responses. Twenty-one percent of the post-menarcheal girls chose "curious" as compared to only 10.8% of the pre-menarcheal girls. Furthermore, although 12.2% of the pre-menarcheal group believed that Ann would be "excited" when she first saw her period, only 3.0% of the post-menarcheal girls chose this response. Twice as many pre-menarcheal girls (17.6%) as compared to post-menarcheal girls (9.0%) anticipated that Ann would feel "scared" and 10.8% of the pre- and 13.4% of the post-menarcheal respondents, chose "disgusted and gross".

Thirty-eight percent of the girls reported that Ann would feel "embarrassed" on the first day of her period and 9.2%, thought Ann would feel proud that her period had come. Almost twice as many pre-menarcheal (10.8%) girls indicated Ann would feel "excited", compared to 6.0% for post-menarcheal girls. Although 44.8% of post-menarcheal girls anticipated Ann would "hate" having her period, only 25.7% of pre-menarcheal girls chose that response.

Four questions were related to feelings associated with some of the activities that are required to manage menstruation. Sixty-one percent of pre-menarcheal girls anticipated that wearing a pad would make Ann feel "different and strange". Fifty-two percent of the post-menarcheal girls thought Ann would feel it was "a bother". Only 4.3% of the sample thought it would make Ann feel "proud" and 15.6% indicated that wearing a pad would not make her feel "any different".

Preparation

The preparation category of the MPRT contained 16 questions that pertained to "information and conditions related to preparing a girl for menstruation". The majority of girls in the sample, 92.2% felt Ann would "know what her period was" when she first saw it; however, in spite of this, only 20.9% of post- and 6.8% of pre-menarcheal girls concluded that Ann would be "well prepared" for her period. Thirty-one percent of post-menarcheal girls indicated that Ann would be "unprepared" for her period and 37.8% of pre-menarcheal girls predicted that Ann would "not know what to do".

Although the majority of respondents reported that Ann realized that she had had her period, only 39.2% of the pre-menarcheal and 56.7% of the post-menarcheal sample reported that she had supplies and knew what to do with them. Twenty-two percent of the pre-menarcheal sample reported that Ann had supplies but did not know how to use them. The use of tampons was addressed, and the majority of the pre-menarcheal girls (62%) believed that Ann would be afraid to try tampons. This response was 20% higher than the post-menarcheal girls. Approximately 45% of the sample indicated that Ann did not know how to use tampons; however, 19% of the post-menarcheal girls said Ann's mother wouldn't let her try them. If Ann did try to use tampons, almost 25% of post-menarcheal girls concluded that Ann would find them better to use than pads, but 12 % expected Ann would find them too hard to use. Only 14% of the pre-menarcheal girls anticipated that Ann would find tampons better to use than pads and 7% believed that Ann would find them too hard to use.

Three questions addressed two of the physical symptoms associated with menstruation: feeling sick and having cramps. Twenty-five percent of the sample thought Ann would not be sick during her period; whereas, the majority, 58.9%, believed that Ann would feel "a little sick". Ten percent of the pre-menarcheal as compared to 16.4% of the post-menarcheal girls anticipated that Ann would be "very sick". Approximately half the sample, 51.1%, thought Ann would sometimes have cramps during her period, although 14.9% indicated that she would not have cramps. Ten percent more post-menarcheal (34.3%) than pre-menarcheal girls (24.3%) expected that Ann would have cramps during her period.

In the event that Ann did have cramps during her period, one question pertained to their severity. Approximately one half of the sample (50.4%) assessed that Ann’s cramps would be slightly painful, and almost one third (28.4%) believed that they would be moderately painful. A difference between the responses of pre- and post-menarcheal girls was that twice as many post-menarcheal girls (17.9%) reported that Ann’s cramps would be very painful, than did pre-menarcheal girls (9.5%).

Despite the extent of the pain of cramping, 33.3% of the sample suggested that Ann would take Aspirin® or Tylenol® and only 5.7% believed she should take something stronger, such as 222’s. Fifty-seven percent of the post-menarcheal and 46% of the pre-menarcheal girls concluded that Ann would not have to take anything for cramps. Four percent recommended that Ann should stay home in bed, and another 12.8% thought Ann should stay home but did not need to stay in bed.

Five questions related to Ann’s participation in daily activities while menstruating. These activities were: attendance in gym classes, gymnastics, Pathfinders (a youth group for girls), a school dance and swimming. Findings are presented in Table 1. The responses to these five dichotomous (yes/no) questions were summed to obtain a score indicating participation in daily life activities. The majority (76.3%) of girls reported that Ann modified her lifestyle when menstruating. Only three girls (2.2%) reported that Ann withdrew from activities altogether. Most surprisingly, the results from the pre-menarcheal girls were similar to the post-menarcheal girls (i.e., 72.5% and 80.3% respectively), indicating that most of the girls *expected* menstruation to reduce Ann’s ability to participate fully in activities.

Table 1
Perceived participation in daily life activities while menstruating

Activity	Attended		Not Attended		Not Reported	
	n	%	n	%	n	%
Gym Class	100	71	40	28	1	1
Gymnastics	85	60	54	38	2	1
Pathfinders	119	84	18	13	4	4
School Dance	135	96	6	4	0	0
Swimming	40	28	100	71	1	1

As discussed earlier, the source of information regarding menstruation may reflect its accuracy and have an impact on how well prepared an adolescent girl may be for menarche. Although 31.1% of pre-menarcheal girls felt that most of Ann's information was obtained from the health class at school, 36.2% of the sample thought Ann would have learned the most about menstruation from her mother. More specifically, the information given by Ann's mother to prepare Ann for menstruation is listed on Table 2.

Table 2

Information provided by Ann's mother for preparation for menarche (Item #38).

	Pre-		Post-		Total	
	n ¹	%	n ¹	%	n ¹	%
38. What things did Ann's mother tell her about periods? (You may pick more than one answer)						
1. How to put on a pad.	30	40.5	34	50.8	64	45.4
2. How to use tampons.	11	14.9	18	26.9	29	20.6
3. How a period may feel.	35	47.3	33	49.3	68	48.2
4. The timing of her periods.	31	41.9	36	53.7	67	47.5
5. What she can and cannot do when she has her period.	20	27.0	17	25.4	37	26.2
6. What emotions she may feel when she has her period.	30	40.5	27	40.3	57	40.4
7. Appropriate hygiene when she has her period.	16	21.6	26	38.8	42	29.8
8. How to be prepared for her period.	41	55.4	34	38.8	75	53.2
9. How it related to growing up.	30	40.5	33	49.3	63	44.7
10. Other_____.	8	9.5	3	3.0	11	6.3

¹Number of responses

If Ann had had a class on menstruation at school, 35.5% believed it did "not go over everything" and at the end of class Ann still "had questions". Approximately 66.7% of the sample believed Ann wanted to know more about how to avoid the problem of bleeding through her clothes, with 54.6% believing Ann wanted to know more about "things that could go wrong". Forty-six percent of the sample reported that Ann would want the information to be presented in grade five. Importantly, only 12.2% of the pre-menarcheal girls suggested that Ann would want both boys and girls to be together in the menstruation class, but this increased to 22.4% in the post-menarcheal group.

School facilities

The four questions in the school category pertained to "the environmental conditions and facilities provided at school to manage menstruation". At Ann's school the pad dispenser would be outside the bathroom cubicle as indicated by over 56.7% of the sample and indeed, if there was a pad dispenser, 47.5% of the sample suggested it would be always be empty or broken. In terms of buying or disposing of used ones, 87.2% felt Ann would be "embarrassed" to buy a pad from the pad dispenser which was in full view of everyone and 80.9% believed she would feel "embarrassed" to dispose of her pad in the garbage can in front of other girls. The responses of the four questions pertaining to school facilities were summed to get scores for each respondent that reflected her perceptions of the overall adequacy of the school facilities. The scores ranged from 4 to 12 (see Table 3). Mean scores between the pre-menarcheal and the post-menarcheal groups were not significantly different ($p \leq .05$) and both groups perceived the school facilities to be moderately inadequate or completely inadequate.

Table 3

Perceived adequacy of facilities in Ann's school

Menarcheal status	Inadequate (Score 4-6)		Moderately Adequate (Score 7-9)		Very Adequate (Score 10-12)		Total	
	n	%	n	%	n	%	n	%
pre-menarcheal	18	26.5	32	47.1	18	26.5	68	54.4
post-menarcheal	18	31.6	28	49.1	11	19.3	57	45.6
Total	36	29.1	60	48.1	29	22.9	125 ¹	100.0

¹Missing observations=16

Discussion

The information from the "Feelings" category showed that subjects reported a range of feelings about menstruation. The pre-menarcheal group anticipated being more scared, yet felt excited at the arrival of menarche. Consistent with Haven's (1986) study, most post-menarcheal girls reported more surprise and felt curious. Perhaps discussing these differences and the range of possible responses with pre-menarcheal girls, emphasizing that there is no "right" feeling, may make the initial experience a little easier and make the girls more comfortable about their mixed feelings.

It is important to note that slightly more pre-menarcheal girls than post-menarcheal girls *expected* to have some physical and emotional symptoms with their periods, indicating that girls *expected* to experience physical changes while menstruating. The rate of expected occasional cramps in the post-menarcheal sample (49.3%) closely resembles the incidence in Finnish post-menarcheal 12 year olds, as reported by Teperi and Rimpela (1989). In addition, the expected use of analgesics for dysmenorrhea reflect the illness-orientation of our teaching and perhaps of our advertising. However, of most significance is the *expected* impact of menstruation on the lifestyle and illness orientation: they expected that Ann would not be able to participate fully in her daily activities while menstruating.

The "Preparation" category provided interesting information. The most pertinent issue evident in these data is that the preparation received for menstruation is not considered adequate, especially by pre-menarcheal girls. This would explain why feelings of not being well prepared, inadequacy, and not knowing what to do were reported by pre-menarcheal girls. Most post-menarcheal girls perceived that the information they received as more adequate than did pre-menarcheal girls, yet few post-menarcheal girls reported they were well prepared. Being both intellectually and emotionally prepared has been cited in the literature as key components for adequate preparation. However, a successful program that contains an appropriate balance between the two, does not appear to be offered.

While the role that educational programs play in preparing girls for menarche (especially before menarche) seems to be important, the mother provided the girls in this sample with the most information. Participants perceived that their mothers discussed how to be prepared for a period and to cope with it once it had started, rather than how to deal with feelings. The teaching apparently is given later, with more post- than pre-menarcheal girls indicating that they received the most information from their mothers. This finding is similar to that of Fox & Inazu (1980) in that the timing of the first discussion about menstruation by the mother was closely matched with the daughter's experience of menarche. However, Hill, Holmbeck, Marlow,

Green and Lynch (1985) found that shortly after menarche there appeared to be a period of stress in the mother-daughter relationship. This stress could prevent the adolescent girl from asking for help or being provided with the support from her mother she needs at that time. Andrews (1985) also discusses the point that, at the time when adolescent girls are questioning their parents' authority, menarche makes them dependent (especially on the mother) for guidance, support and understanding. The information from these two sources suggests that another support person such as a community health nurse, as well as post-menarcheal classes, may be necessary to help the adolescent girl adjust to menstruation.

The short answer concerning the school facilities yielded some interesting comments and overwhelmingly demonstrated the girls' own feelings of a lack of privacy. This is a serious issue. Not only are young girls required to carry out the tasks necessary to manage a new experience for which they have not been well prepared, they are expected to do this in an environment that causes them embarrassment and stress. Concerns were voiced about the physical layout of the washrooms and change rooms, such as not having sanitary napkin dispensers and disposals in the cubicles. It was stressed that having the dispensers working and stocked at all times may help minimize the embarrassment and stress. The psychological traits characteristic of the adolescent group, such as egocentrism and concern with the imaginary audience (Mitchell, 1986), can lead a girl to believe that everyone is aware she is menstruating. This feeling of being watched may be compounded if she has to purchase pads or tampons from a dispenser situated in full view of other girls in the washroom. These adolescent girls require an advocate, such as the community health nurse, to help rectify a poor environmental situation and make coping a little easier for them. It is clear that improving these facilities would help girls cope better with the changes of menstruation.

Implications for Nursing Practice and School Health

Data obtained in this study have several implications for nurses and others involved in school health education. Reports from adolescent girls in this sample indicated they were not as prepared as they could be for such an important life event. We recommend that community health nurses provide menstrual education in the following areas.

They should offer initial menstrual education prior to menarche. The age of menarche can be very early for some girls. Menarche occurred for ten girls in this study before the age of 11 years; therefore, education should begin in grade four. Reducing the age of instruction for menstrual education will assist girls to assimilate information and provide additional time for them to accept menarche, thus assisting in normalizing changes during puberty.

They should provide more than one menstrual education class prior to menarche so that learning can be reinforced. *Girls only* follow-up classes, audio-video presentations and books for independent study should be offered for girls who have reached menarche. The schools where this study was conducted offer one class to grade five girls. A second class that would help girls cope with menstruation should be required after the onset of menarche. It is interesting that some attempts to "normalize" this instruction have included boys. Girls report that this innovation is anxiety producing and embarrassing (Morse & Doan, 1987). Findings indicate that boys and girls, especially in the early grades, should be provided with information in separate groups.

Community health nurses should also provide information for mothers and encourage them to discuss the physical and emotional aspects of menarche with their daughters. Mothers should be encouraged to provide much of the information by grade four.

Finally, they should acknowledge to adolescent girls that menstruation is not an isolated event but is an event that is affected by many other aspects of their lives. Simply providing information about the physiology and coping aspects of menstruation is not enough. The community health nurse should be aware that other emotional factors affect the experience of menstruation. It is important that the egocentric nature of early adolescent girls and the desire for privacy be acknowledged during discussions relating to menstruation.

Implications for Further Research

The issue of menstrual education remains a relatively poorly understood area. Research findings suggest that being well prepared for menarche may lead to a more positive experience. However, further research is required to explore what type of information and what type of teaching format would lead to reports from post-menarcheal adolescent girls that they were well prepared for the experience. Qualitative and quantitative evaluation of existing programs is an essential first step in developing and testing satisfactory educational programs. A variety of teaching methods and materials should be developed and tested on several groups of subjects. Further, school nurses should conduct an environmental assessment of school washroom facilities to ensure that the girls' needs for privacy are met. If these needs are not being met, the role of the nurse as an advocate for change on behalf of the students is clear.

As in this study, most of the research in the area of menstruation has been conducted using a convenience sample of healthy, white, middle-class, adolescent girls. Data derived from the experiences of menarche for girls in

other cultural groups and social classes are necessary to obtain a more comprehensive picture. Conducting research with handicapped girls as subjects would yield important information concerning their special learning needs and coping abilities. This information would be beneficial for community health nurses in teaching and supporting adolescent girls of different cultural and health groups who are experiencing menarche.

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RÉSUMÉ

Comment les adolescentes perçoivent le début de la fonction menstruelle

L'objectif de cette étude était de déterminer comment les adolescentes perçoivent la préparation qu'elles reçoivent concernant le début de la fonction menstruelle et comment elles font face à leur cycle menstruel dans la vie quotidienne. Les données étaient recueillies utilisant un questionnaire projetant leur sentiments. Les jeune filles étaient interrogées afin de déterminer comment une adolescente fictive, Ann, qui est "une fille comme les autres", ressentait. L'échantillon comprenait 141 filles étudiant dans trois écoles Catholiques d'une petite ville d'Alberta. La moyenne d'âge était de 12.4 ans et 47% des sujets avaient déjà vécu leur première épisode menstruelle.

Les résultats ont indiqués que les adolescentes ne sont pas assez bien préparées lors de la venue de leur première menstruation et qu'il y a une importante lacune d'informations disponibles. De plus, le milieu scolaire ne supporte pas les adolescentes dans leur nouvelle condition menstruelle en ne prévalent pas le maintien de la confidentialité et de l'aide nécessaire à une meilleure adaptation. Le développement d'un programme éducationnel centré sur la menstruation et le rôle de l'infirmière en milieu scolaire agiront comme intermédiaires afin de faciliter les changements dans le milieu scolaire.

Acknowledgements:

The authors acknowledge the assistance of Dr. D. Kieren and Prof J. Innes. This research was conducted as a part of the first author's requirements for the MN degree at the University of Alberta. Financial support was provided by AFNR.

A copy of the questionnaire may be obtained from the second author.

LEVELS OF STRESS AND HEALTH PRACTICES OF WIVES OF ALCOHOLICS

Phyllis Montgomery and Dorothy Craig

It is estimated that every alcoholic adversely affects the well-being of five to seven others, including the spouse, other family members, friends and coworkers. (Steinglass, 1981; Wilson-Schaefer, 1986). Jackson (1954, 1962) concluded that the spouses of male alcoholics experienced stress because of living with an alcoholic. This stress may be manifested through a wide variety of physiological, psychological and social symptoms (Jacob, Dunn, Leonard & Davis, 1985; Moos, Finney & Gamble, 1982; Whitfield, 1984).

Stress has been associated with poor health practices such as smoking, alcohol use and increased caffeine consumption (Conway, Vickers, Ward & Rahe, 1981; Lindenthal, Myers & Pepper, 1972). Healthy lifestyle practices have been positively associated with good physical health status (Belloc & Breslow, 1972), lower mortality (Belloc, 1973; Wingard, Berkman & Brand, 1982) and social support (Berkman & Syme, 1979; Gottlieb & Green, 1984). For some individuals, lifestyle practices may reduce the effects of the stress of living with an alcoholic. However, poor health practices, such as smoking, can be stressors in themselves; consequently, the health of the wife of an alcoholic may be affected.

The purpose of this study was to answer the following research questions:

1. What are the perceived levels of stress of the wives of alcoholics?
2. What are the major areas of stress for the wives of alcoholics?
3. What are the health practices of wives of alcoholics?
4. What is the relationship between the perceived levels of stress and the health practices of wives of alcoholics?

Review of the Literature

Early researchers have reported that wives of alcoholics had disturbed personalities (Bullock & Mudd, 1959; Kalashian, 1959; Lewis, 1954; Whalen,

Phyllis Montgomery, R.N., M.Sc.N. is Assistant Professor in the School of Nursing, at Laurentian University, in Sudbury. Dorothy Craig, R.N., M.Sc.N. is Associate Professor in the Faculty of Nursing, at the University of Toronto.

1953). Later studies found that such wives were under stress and, as a consequence, their health was negatively affected. Jackson (1954) described wives of alcoholics as being psychologically stressed as a consequence of the continual need to adjust to the alcoholic's behaviours. The husband's sobriety did not necessarily alleviate this stress for the wife because negative characteristics of the alcoholic, such as depression, were often still evident. Subsequent studies (Bailey, 1967; Haberman, 1964; Kogan & Jackson, 1965; Moos et al., 1982; Paolino, McCrady & Kogan, 1978) have generally supported Jackson's assertion that wives of alcoholics are under stress. Moos et al. (1982) found that spouses of relapsed alcoholics, as compared to spouses of nonalcoholic and recovered alcoholics, consumed more alcohol, but their drinking was not reported as excessive. Spouses of relapsed alcoholics also reported more psychological and physical symptoms, physician visits, negative life events, medical conditions and fewer social activities than spouses of nonalcoholic or recovered alcoholics.

Conceptual Framework

The conceptual framework for the study was an adaptation of Neuman's Systems Model (1982). The alcoholics' wives were viewed as a composite of physiological, psychological, sociocultural, developmental and spiritual variables, as described by Neuman (1989). The wives, in accordance with the model, were subject to the impact of intrapersonal, interpersonal or extrapersonal stressors. Neuman (1982) stated that reaction to stressors was influenced by the individual's lines of defense. The normal line of defense was described as the person's usual state and was the result of coping patterns, health practices and developmental stage. The flexible line of defense, also a result of the person's coping patterns, health practices and developmental stage, was described as providing a buffer against stressors. The flexible line of defense was dynamic, changing rapidly in crisis or altered physical states. Neuman (1982) posited that both were affected by health practices. In this study health practices, either healthy or unhealthy, were included because either could strengthen or weaken the lines of defense against stressors.

Method and Procedures

This descriptive, correlational study was conducted in three alcohol treatment centers, in a large metropolitan area. A convenience sample of 33 wives of alcoholics was selected from the target population of wives whose husbands were admitted to an alcohol treatment program. Informed consent was obtained from the 30 wives who participated in the study. The subjects were interviewed once; all but three were interviewed in their homes. Data were collected using a Demographic Profile, the Perceived Stress Level tool and the FANTASTIC Lifestyle Checklist.

Instruments

Demographic variables were measured with the 11-item Demographic Profile developed by the investigators, for this study. Item content was based on both the review of the literature and Neuman's (1982) description of an individual which included the interrelationship of the five variables; physiological, psychological, sociocultural, developmental and spiritual. The profile included questions about developmental variables (age and education); sociocultural variables (number and age of children, how many children at home, employment status, income, length of time living with an alcoholic husband and length of time husband's drinking was considered to have been a problem); spiritual beliefs (if present and if a source of strength); and perceived health status within the past month. Perceived health status was measured by three items. Wives rated their perceived physical health and psychological health on two separate seven-point Likert scales ranging from "very poor" (1) to "excellent" (7). To allow the wives to share their perceptions of their health problems, they were also asked to respond to one open-ended question: "Tell me about health problems you may be currently experiencing." Verbatim notes of their responses to this question were documented.

The Perceived Stress Level tool was also designed by the investigators to measure the wives' stress levels and stressors. The first question consisted of a 100mm vertical visual analogue scale, to measure the perceived stress level of each subject. The bottom anchor of the analogue represented "no stress at all", and the top anchor represented "stress as great as you can imagine". Each subject was asked to place a mark on the line that best indicated her level of stress. The level of stress was scored by measuring the number of millimetres from the low end of the scale to the subject's mark.

Visual analogue scales (VAS) have been used to measure a variety of subjective experiences with reported reliability, validity and sensitivity (Gift, 1989). Test-retest reliability of the VAS has been reported as .95 for women in labour (Revill, Robinson, Rosen & Hogg, 1976). Little and McPhail (1973) used the Beck Depression Inventory to establish concurrent validity of the VAS as a measure of depression ($r=.76, p<.001$).

After the analogue was administered an open-ended question was used to allow the subjects to share information regarding their stressors. Subsequently, the subjects were asked to rank their stressors. Verbatim notes of their responses were made. The stressors were categorized according to Neuman's (1982) definitions of intrapersonal, interpersonal and extrapersonal stressors. Interrater reliability of the coding was established at 97 percent. No pilot study was done to test the instrument.

Health practices were measured with the FANTASTIC Lifestyle Checklist (Wilson & Ciliska, 1984; Wilson et al., 1983). The checklist consists of 25 lifestyle items which are grouped into the following nine subscales of positive and negative health practices: family and friends; activity; nutrition; tobacco and toxins; alcohol; sleep, seat belts and stress; type of personality; insight; and career. Subjects rated the frequency with which they engaged in each of the practices described in the 25 items using a five-point scale, ranging from four to zero. The possible range of the total lifestyle score is 0 to 100, with high scores indicating more positive health practices.

Test-retest reliability of the total FANTASTIC scale has been reported as 0.603 (Kason & Ylanko, 1984). In this study, Cronbach's alpha for the total FANTASTIC scale was .625, with inter-item correlations ranging from -.253 to .576. The intercorrelation value for the item "my average alcohol intake per week" yielded no numeric correlation value. This result may be attributed to the fact that 100% of the sample responded in the category of "0-7 drinks/week". Cronbach's alpha was low; as such, items were removed according to their negative or low item scale correlation values. This resulted in the removal of two complete subscales, "activity" and "career" which represented three items as well as ten items from the remaining seven subscales. The modified lifestyle tool then consisted of 12 items. The resultant alpha for the modified lifestyle tool was .764, with inter-item correlations ranging from .304 to .581. A total health practice score was calculated by adding the scores of the 12-items, with a possible range of scores from 0 to 48. These total scores for the revised health practice tool were used for statistical analyses.

Data were analyzed using descriptive statistics, Kendall's tau for rank-order data and the Pearson Product Moment Correlation. An alpha of .05 was used.

Results

Sample

Select data from the demographic profile of the sample is presented in Table 1. Other demographic data were also of interest. Only four (13%) of the subjects had not achieved a high school diploma. The children's ages varied from six months to over 30 years. Twenty-five (83%) of the 30 subjects were employed outside the home with clerical work being the most frequently reported ($n=16$, 53%) occupation. The median family income was between \$40,000 and \$49,000 per year and approximately one-third ($n=11$) of the sample reported an income of \$50,000 or greater. Twenty-three (77%) of the sample reported having spiritual beliefs, with the majority ($n=20$) perceiving these beliefs as a source of strength.

Table 1***Demographic Profile of Sample (N=30)***

Variable	Range	Mean	SD
<i>Developmental:</i> Age	23-63	43.0	10.2
<i>Sociocultural:</i> Number of children	0-6	2.0	1.3
Children residing at home	0-3	1.4	0.8
Years living with husband	0.5-36	15.7	10.5
Years perceived husband's drinking as a problem	0-31	9.0	8.1

The subjects reported their perceived physical health ($Md=5$) to be better than their perceived mental health ($Md=4$). In response to the open-ended question about their perceived health problems, the majority of the subjects ($n=19$; 63%) reported that they were not experiencing personal health concerns at the time of the study. The remaining 11 (37%) subjects reported a total of 21 health problems. They indicated from one to three health problems each, the most frequently reported being fatigue ($n=5$).

Perceived levels of stress

Although the subjects' perceived levels of stress scores ranged from 10 to 94mm ($M=67.4$; $SD=21.5$), almost two-thirds ($n=19$) of the sample perceived their stress as high, with scores greater than 70. Those subjects ($n=4$, 13%) who had low perceived stress levels (10 to 40mm) qualified their responses by reporting that their levels of stress had decreased when their husbands had become involved in treatment programs.

The 30 subjects reported a total of 147 stressors. There were 100 (68%) interpersonal stressors, 30 (20%) extrapersonal stressors and 17 (12%) intrapersonal stressors. All the wives reported one or more interpersonal stressors. The one most frequently reported was a poor relationship with their husband. The extrapersonal stressors included finances and occupational concerns. The sample ranked their occupational concerns as more stressful than their financial concerns.

One of the sample's lowest-ranked stressors was perceived health status (intrapersonal stressor). Only five of the subjects were concerned about their mental health. Subjects reported that their health was important to them because it provided them with strength to cope with their situations and to care for their children's well-being. For example, one wife stated, "If I have my health, I can cope with anything."

Health practices

The total scores obtained on the modified 12-item lifestyle tool ranged from 17 to 45 ($M=35$; $SD=6.65$; $MD=36$). Medians for each of the 12 health-practice items are presented in Table 2. The higher values indicated more positive lifestyle practices. One-hundred percent of the sample reported zero to minimal alcohol consumption. Approximately two-thirds of the wives reported having someone with whom they could talk about their problems. Responses to an open-ended question revealed that many of the wives did not engage in many social activities, and preferred small social gatherings.

Sixty percent ($n=14$) of the wives were not smoking at the time of the interview. Subjects reported being angry ($n=10$; 33%), tense ($n=11$, 37%) and sad ($n=5$, 17%) almost always or fairly often.

Table 2

Median Scores of the 12-Item Lifestyle Tool (N=30)

Description of question asked	Median*
Give/receive affection	4 (almost always)
Eat balanced diet	4 (almost always)
Smoke tobacco	2 (quit > 1 year)
Cigarettes per day	4 (none)
Medication abuse	4 (never)
Amount drink per occasion	4 (never)
Sleep/rest	3 (often)
Use seat belt	4 (almost always)
Relax	3 (often)
Feel angry	2 (some of the time)
Feel tense	2 (some of the time)
Feel sad	2 (some of the time)

*Possible range of scores was 0-4.

Relationships between study variables

The Pearson coefficients were computed to determine the relationships between certain demographic variables, perceived stress levels and total health practices scores. The demographic variables, age, number of years of living with their husbands and length of time that drinking was perceived to be a problem, were not significantly related to perceived stress or health

practices. There was a moderately significant negative relationship between the total health practices score and the perceived level of stress ($r = -0.393$, $p < .03$).

Using Kendall's tau, perceived mental health status was negatively correlated to total stress levels ($\tau = -0.412$, $p < .003$).

Discussion

In this study of wives of alcoholics, perceived level of stress had a weak negative relationship to health practices. Those wives who perceived their levels of stress to be high reported engaging in fewer healthy lifestyle practices. This negative relationship is consistent with findings from previous studies (Conway et al., 1981; Lindenthal et al., 1972; Ruderman, 1983). Approximately two-thirds of the wives reported engaging in positive health practices. Health practices such as good nutrition, seat belt use and not smoking have been associated with perceived good health status (Belloc et al., 1972; Norman, 1986). In this study, zero to minimal alcohol consumption is consistent with the findings of Moos et al. (1982) in which spouses of recovered alcoholics were found to be non-drinkers.

Approximately two-thirds of the wives' also reported that they engaged in the healthy lifestyle practice of talking with someone about their problems, being able to give and receive affection or both. The wives reported few and only selective social activities. This may have allowed them to conceal their husband's drinking, and may possibly have protected them from potential interpersonal stressors (Neuman, 1982, 1989). Gorman & Rooney (1979) have stated that, as a means of coping, the wives of alcoholics limited the couple's social activities.

The investigators suspect that a possible motivation for some wives for engaging in healthy practices was the importance the women placed on their own well-being. Several wives perceived their health as a resource to help them cope with their stressful environment. Additionally, other wives explained that their health was important because they were primarily responsible for the well-being of their children. Similarly Hibbard and Pope (1987) found that the women's roles of caring for and protecting family members' health were associated with a greater interest in personal health.

Neuman (1982) postulated that energy is used when the individual is in a state of disequilibrium. Thus, the wives who reported symptoms of fatigue may have been experiencing a generalized response to stress, over a period of time. This fatigue may have increased their susceptibility to other stressors as it weakened their flexible lines of defense. However, the wives ranked their personal health as one of their lowest stressors. In the absence of

a control group, the finding concerning fatigue must be viewed with caution: women with family and career responsibilities may have similar levels of fatigue.

Limitations

The FANTASTIC questionnaire was originally developed as a self- assessment tool for patients, and as a memory aid for physicians. Although the tool provided important information, it also had limitations. The tool was designed to measure lifestyle practices that positively or negatively influence health. However, along with these practices it seemed to measure feelings (tension, sadness, anger) and stressors (job satisfaction). Feelings and stressors may, in turn, influence health practices. However, this relationship is not acknowledged by the tool's developers.

Another limitation of the FANTASTIC tool for research purposes was that the subscales grouped unrelated items together. For example, there was no apparent theoretical basis for the subscale combination of items "sleep/seat belt/stress".

The present study's finding must be viewed with caution because of the small non-random sample and the lack of pilot testing of the modified health practices tool and Perceived Stress Level questionnaire. Also, perception of stress was measured only at one point in time.

Implications for research

The results of this study generated suggestions for further research. Despite acknowledged limitations, the FANTASTIC Lifestyle Checklist provided some valuable information about health practices; however, the development and testing of a lifestyle assessment tool is needed. Using a reliable and valid lifestyle assessment tool, a longitudinal study to identify the perceived levels of stress and the health practices of the wives of alcoholics could provide more comprehensive data about their perceived stress, and about the relationship of their stress to their health practices. A future study should compare the perceived levels of stress and health practices of wives of alcoholics with a control group of women from the general population.

Clinical implications

Although further research is required, some recommendations for clinical practice were indicated by this study. The wives in this study perceived their environments to be stressful. Health care workers who are working with wives of alcoholics should assess the level of stress perceived by these women and the stressors that they are experiencing. This will enable the

workers to plan strategies, with these wives, to eliminate stressors or to deal with them as effectively as possible. When spouses enter a treatment program, a program should be offered to wives that addresses their specific needs. It should not be assumed by health care workers that the spouse's entrance into a treatment program eliminates stress for the wife.

Although the majority of the wives reported engaging in good health practices, some of the wives reported health practices that may compromise their health. The health care worker should assess the wife's health practices and the relationship of these health practices to her stress. This could assist her to attain or maintain a good health status. Good health was important to the wives in this study - they felt that it was important to being able to cope and care for their families.

Conclusion

The wives of alcoholics reported high levels of stress. The stressors reported most frequently by wives were a poor relationship with their husband, financial or occupational concerns and fatigue. The majority of wives reported engaging in good health practices; however, a small group of wives reported health practices that could endanger their health. Health was perceived as an important resource by some of the wives in this study who felt it enabled them to care for their families.

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RÉSUMÉ

Niveaux de stress et facteurs affectant la santé chez les femmes d'alcooliques

Une étude descriptive et corrélationnelle a été réalisée pour étudier les niveaux perçus de stress et le mode de vie de femmes d'alcooliques en traitement, ainsi que le lien entre ces deux variables. Un échantillon de commodité de 30 femmes d'alcooliques a pris part à l'étude. Les résultats ont fait ressortir une faible relation négative entre les niveaux perçus de stress et le mode de vie. La plupart des femmes disaient être soumises à un stress élevé; la majorité d'entre elles avaient un régime de vie sain.

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