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, baccaleaurate 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.

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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, Ostmoe (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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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.

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