

MARRIED REGISTERED NURSES' LABOUR FORCE PARTICIPATION

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Traditionally, nursing staffing planning policies have been directed toward increasing or curtailing professional training outputs in a manner similar to other health professions. Nursing is almost exclusively a female occupation in which a majority of the participants are married, and a married woman's labour force participation has to be balanced with family responsibilities; as such, participation may tend to be short-term or intermittent. A more fruitful staffing planning approach might be to direct attention toward those nurses who are already trained: the so-called "pool" of nursing supply. The problem is to understand and take account of this intermittent or secondary nature of married nurses' labour force participation. In effect, what distinguishes married registered nurses who work from those who do not? The purpose of the study, then, was to investigate concomitants of married registered nurses' labour force participation, in order to identify factors that might be useful as predictors of or manipulatable influences on the future supply of nurses. This report is a synthesis of a larger report (Laing, 1986).

Literature

Factors associated with labour force participation of women in general have been studied in the United States and Canada but very few studies have dealt with a particular professional group. Six studies of nurses' labour force participation have been located (Bishop, 1973; Bognanno, Hixson & Jeffers, 1974; Greenleaf, 1983; Link & Settle, 1979, 1980; Sloan & Richupan, 1975). All utilized an economic conceptual framework which included family life cycle variables. Each employed a type of regression modelling technique to estimate the effect of a slightly different group of independent variables on labour force participation. Several studies used U.S. Census data (Bognanno, Hixson & Jeffers, 1974; Link & Settle, 1979, 1980; Sloan & Richupan, 1975), another used state registration data (Bishop, 1973), while Greenleaf (1983) used secondary questionnaire data. Bishop used towns and

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cities as the unit of analysis, while all of the other studies were analysed on an individual nurse basis. Greenleaf used a dichotomous dependent variable (working or not-working) while the other studies used annual hours worked as the interval-level dependent variable. Accordingly, estimating techniques differed across studies.

The findings of these studies, when taken together, present a rather unclear picture of the relationship of these selected variables to nurses' labour force participation. The overall picture is confounded by differences in models, differences in methods and differences in time over the range of the data (1960 to 1980). In general though, these previous studies indicate that the wage of the spouse and other family income was significantly related to nurses' labour force participation. Wage of the nurse herself was equivocal; a significant factor in some studies (Bishop, 1973; Sloan & Richupan, 1975; Link & Settle, 1979), and not significant in others (Bognanno, Hixson & Jeffers, 1974; Link & Settle, 1980). The presence of young children was generally a constraint on the labour force participation of their mothers; the effect of the presence of older children was not certain. Attitudes toward a career or satisfaction with nursing were not included in any of these models.

Conceptual Framework

Labour force participation (the number of persons working out of the potential number trained or otherwise eligible to work) can be conceptualized and measured in several ways. The first is quantity of labour supplied in a given year, measured by annual hours worked. The second is the decision to work or not to work in a given year, measured as a dichotomous variable. In nursing, where such a large proportion of work is part-time, this is perhaps more properly conceptualized as a trichotomous variable - not working, part-time or full-time. Further, the decision regarding working may not be a yearly event but may rather correspond to a more extended time frame, such as a five-year pattern of participation. No one of these conceptualizations is theoretically better than another; therefore, all were taken into account in modelling labour force participation.

Five categories of factors were expected to influence labour force participation. These were: economic choice and need; sex role attitudes; stage of family life cycle; work related factors; and other factors such as educational level, health status and rural/urban residence. These factors and their operationalized variables are shown in Figure 1. The plus and minus signs next to the operationalized variables indicate the expected direction of the association between these variables and the dependent variable.

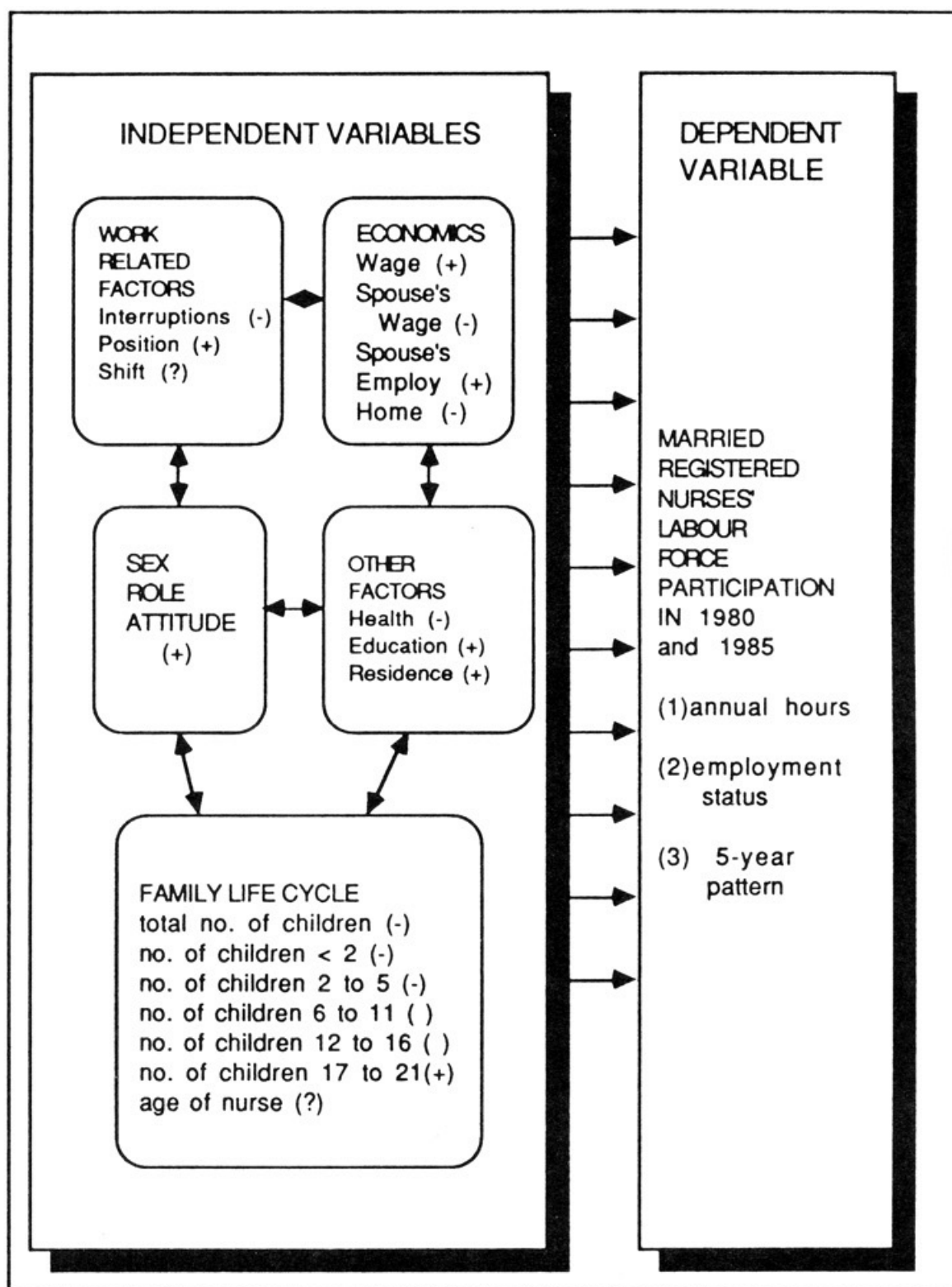


Figure 1

Conceptual Framework of Factors Influencing Married Nurses' Labour Force Participation

Economic choice was conceptualized as a decision to work, based on perceived rewards for paid employment, relative to the perceived rewards for remaining outside the labour force. Gronau's (1973) method of calculating a non-market value in monetary terms was employed. Gronau hypothesized that a woman would work if her "market" wages exceeded her estimate of the value of her non-work time. Further, her "non-market" wage could be approximated by calculating the wage she could earn if she did work. Accordingly, monthly wage rate for workers and non-workers was estimated with regression equations, based on the collective bargaining contract that prevailed across the population studied.

Economic need was included to capture previous evidence that female labour force participation is negatively associated with other family income and assets (Bowen & Finegan, 1969; Long & Jones, 1980; Spencer, 1973). Other assets were measured with spouse's income, spouse's work status and home ownership status.

While economic household choice theory posits that monetary concerns have the strongest influence on the decision by a married woman to work, it also includes the assumption that "inclinations" for home-work or for "market" work influence the amount of time a woman spends on either alternative (Bowen & Finegan, 1969; Spitze & Spaeth, 1979). Previous studies have not specifically measured and included 'tastes'. In this study these inclinations were specifically measured with a sex role attitude scale (Barbery, 1983).

Sex role attitude was conceptualized as a continuous construct, with its polarities epitomized by the "traditionalist" versus the "egalitarian" viewpoints. The home or traditionalist view centers on the division of labour within the family, with the gender-based homemaker and bread-winner specialization of wife and husband (Mason, Czajka & Arber, 1976). Fulfillment is seen as centered on the role of wife and mother. The egalitarian viewpoint is that women in general should hold a job if they want to, and that no-one, specifically a child, is harmed if they do so (Waite, 1978). Fulfillment is seen as centered on work and career.

Family life cycle was defined as a sequence of characteristic stages, beginning with family formation and continuing through the life of the family to its dissolution (Duvall, 1971). These stages are characterized not only by changing family constellations, but also by differing goals, tasks and values; they correspond loosely to the ages of mother and children. On the basis of previous studies the expectation was that there would be differential labour force participation according to the number and ages of the nurses' children (Landsberger, 1973; Mincer & Polacheck, 1974; Nye & Hoffman, 1963). As shown in Figure 1, younger children were expected to constrain labour force participation while older children were expected to encourage it.

When career and family both represent high demands on a woman's inclinations, the person with a satisfying career would be less likely to respond to conflicting demands by decreasing career involvement than would a person with less career satisfaction. Job commitment results from job satisfaction and, in turn, encourages continued participation in the labour force (Locke, 1976; Mobley, Griffeth, Hand & Meglino, 1979; Price & Mueller, 1981). A growing body of literature suggests that job satisfaction contributes to job commitment via five key factors: variety of skills required by the job, the extent to which the work is seen as whole rather than a fragment, the extent to which the work is perceived as important, the extent to which feedback is available from the work itself and the amount of autonomy in determining which work will be done (Gaertner, 1984; Hackman, 1977; Hackman & Oldham, 1975). A hierarchy of nursing positions, based on the scope for meeting these key factors, was hypothesized to represent job commitment. Through autonomy, shift work also appears to be associated with job commitment (Greenleaf, 1983; Parasuramen, Drake & Zammuto, 1982). Further, the number of previous career interruptions, when age and number of children have been controlled, was assumed to measure the degree to which a nurse has chosen to work in the face of conflicting demands. The implication was that fewer interruptions represents more satisfaction with work and commitment to it.

Some evidence in previous studies (Bishop, 1973; Bowen & Finegan, 1969; Decore, 1976; Willis, 1967) of rural or urban differentials in female labour force participation, prompted the inclusion of this variable. There has also been some evidence of difference in labour force participation by educational level (Greenleaf, 1983; Knopf, 1983; Michael, 1974; Suter & Miller, 1973). Finally, health status of the nurse was included as a control variable. Poor health or maternity leave may be the reason for withdrawal from the workforce and, if this possibility was not accounted for, it might have obscured the effect of other factors.

The possibility of interaction between many of these variables was allowed. Specifically, sex role attitude was expected to influence education, number of children, number of previous career interruptions and position. Education was expected to influence number and age of children, spouse's salary, position, shift and nurse's wage. Rural or urban residence was expected to influence home ownership and sex role attitude. Age of the nurse was expected to influence home ownership, spouse's salary, and number and age of children. The work-related variables (number of interruptions, position and shift) were expected to influence a nurse's wage as well as to interact among themselves.

Design

The main study was an exploratory survey conducted in 1985. It was a longitudinal design in the sense that respondents were asked to recall their work history over the past six years (1980 to 1985).

Population and sample

The target population was married nurses registered in Saskatchewan, Canada in 1985. The Saskatchewan Registered Nurses' Association (SRNA) regulations specify that, subsequent to initial registration, a nurse must have worked a certain number of hours within the past five years to be eligible for current registration (SRNA, 1985). Thus the definition of a registered nurse (as opposed to a graduate nurse) is based on a five-year time frame. In order to represent the target population adequately, the sampling frame had to include anyone who was registered with the SRNA within the past five years (1980 to 1984). This allowed inclusion of nurses who were not currently registered, but who would be eligible for registration if they chose to be. A cumulative list of married, female nurses under the age of 65 was assembled from computer records of year-end files for the past five years. A random selection procedure was then used to select a sample of 1,000 subjects.

The instrument

Data were collected with a mail questionnaire composed of three sections which measured labour force participation, economic, work related and family life cycle variables and sex role attitudes. Section I was composed of questions related to personal and family life cycle variables. Section II was a work history. These questions were taken from the 1981 Canadian Census, and from studies of work patterns of nurses (Jope, 1981; Knopf, 1983). Section III was a sex role attitude scale constructed by Barbery (1983). She tested construct validity by checking her scale classification of home- versus career-oriented women against classifications of the same subjects with the Edwards Personal Preference Schedule (Edwards, 1959) and the Strong-Campbell Interest Inventory (1981). For a statistically significant number of subjects, the classifications were consistent. Significant differences in the way women in different occupational categories (housewives, non-professionals and professionals) responded were demonstrated. Reliability estimates (item-total correlations) indicated homogeneity of content. However, because validity for the use of this scale had not been established with a sample of nurses, the scale, along with the rest of the questionnaire, was pretested with 100 nurse subjects from a neighboring province. Statistical tests of internal consistency (split-half and item-total correlations) and predictive validity (t-test between employed and non-employed subject's

scores, and analysis of variance among scores of type of position categories) indicated a satisfactory level of reliability for the Barbery scale with nurse subjects ($r > .8$).

Data collection procedure

After consent for access to subjects had been obtained from the SRNA, the study was publicized in the provincial nursing newsletter. The questionnaire along with an explanatory letter and a stamped, self-addressed envelope were delivered to the SRNA office; the computer generated mailing labels were applied by SRNA staff; and the package was mailed to subjects. Return of the completed questionnaire was taken as informed consent. The researcher did not see the names on the mailing list nor was the respondent's name on the completed questionnaire, thus confidentiality and anonymity were assured. A post-card reminder was forwarded two weeks later to the entire sample by SRNA office staff, to thank respondents and re-appeal to non-respondents. This elicited a response rate of 61%.

Analysis

Analysis involved the estimation of eight different models of married nurses' labour force participation. Four descriptive models that used annual hours worked and employment status as the dependent variables were estimated for 1980 and 1985, and compared. Stepwise multiple regression and path analysis were used to estimate annual hours models. Discriminant analysis was used to estimate three-category employment status (full-time, part-time and not working) models for 1980 and 1985. These four models were compared, according to the relative importance of the various independent variables, to ascertain the differences engendered by the differential definitions of labour force participation and the stability of the postulated relationships over time. Four forecasting models were estimated that used 1980 data for the independent variables; a three-group and a six-group categorization of the five-year career pattern, annual hours worked and employment status in 1985 were the dependent variables. The three-group career pattern consisted of either an interrupted pattern, continuous full-time work, or continuous part-time work. The six-group career pattern was an attempt to refine career pattern, by defining interruptions more specifically. The groups were: continuous full-time, continuous part-time, interrupted with periods of not working, interrupted with periods of looking for work, interrupted with periods of working other than as nurses and interrupted with periods of being a student. As with the descriptive within-year models, stepwise regression and path analysis were used to estimate the annual hours model, and stepwise discriminant analyses were used to estimate the career pattern and employment status models. This analysis is summarized in Figure 2.

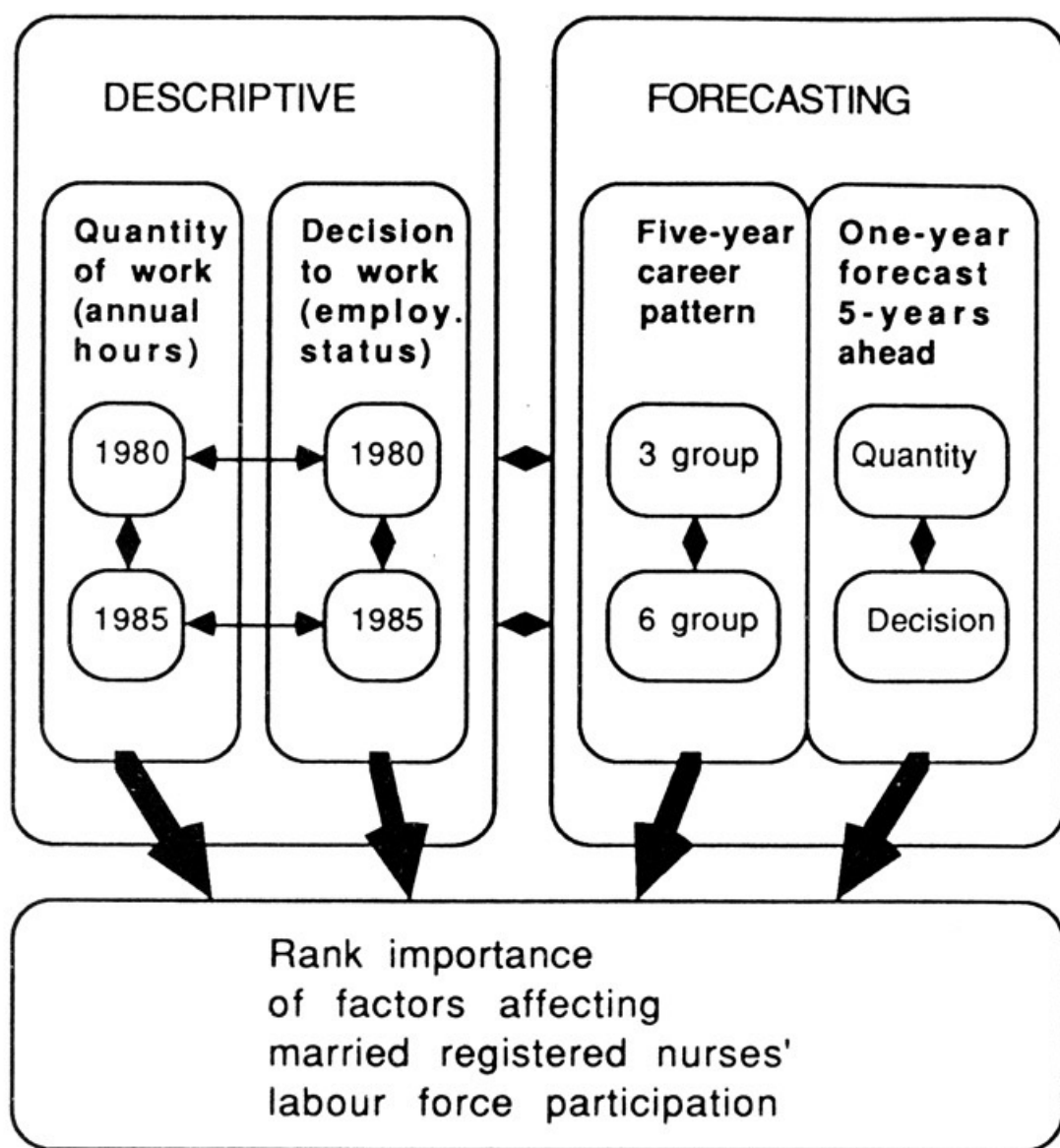


Figure 2

Summary of the Analysis: Eight models of labour force participation

In order to legitimize the comparison of models with different dependent variables and different time frames, the same cases were used for all models. Consequently, cases with missing values for any of the 1980 or 1985 variables were deleted, as were cases in which the respondent was not married or working other than as a nurse. This deletion resulted in 400 cases with complete data for 1980 and 1985 which were used in all models, thereby ruling out the possibility that differences between models might be attributed to essentially different samples. Four hundred cases still allows ample power for the techniques used, according to calculations based on Cohen's (1977) formulations. The same variables were offered for selection in all of the step-wise estimating procedures.

Finally, the overall relative importance of the factors posited to be associated with married registered nurses' labour force participation was calculated. A scheme that took into account both the rank of the important variables within the respective models and the number of models in which the variables ranked was used.

Results

A profile of the "typical" respondent, assembled from the means and medians of these data, would be a nurse who was married and living with her spouse both in 1980 and in 1985. In 1980 the average respondent was 35 years old, with one child between the ages of six and eleven. She graduated from a hospital-based diploma program in 1967, and was working full-time as a staff nurse on a rotating shift, 26 hours a week for 37 out of 52 weeks. She earned \$1,237 per month. Her husband worked 48 out of 52 weeks; his reported annual salary was between \$15,000 and \$25,000. The nurse lived in a mortgaged home in a city in Saskatchewan; she considered herself to be healthy.

In 1985, the typical respondent (the same respondent as in 1980) was 39 years old and had two children between the ages of six and eleven. She graduated from a hospital-based diploma program in 1967. She had worked for 15 years, with one career interruption. In 1985 she was likely to be working part-time as a staff nurse, on a rotating shift: 24 hours a week for 17 weeks (out of a possible 22 weeks, considering a mid-June cut-off point for data collection). She earned \$1,633 per month. Her husband has been employed 19 out of the possible 22 weeks; he earned between \$25,000 and \$30,000 per annum. The nurse lived in a mortgaged home in a city in Saskatchewan; she considered herself to be healthy.

Participation rates, calculated as the proportion of those working in nursing, either part-time or full-time out of the total sample were 84% in 1985 and 85% in 1980. Comparing these rates with Statistics Canada (1983) figures

for Saskatchewan married registered nurses in 1983, shows the difference between rates calculated with nurses who are registered as the denominator (Statistics Canada) and rates calculated with nurses who are eligible for registration as the denominator. The participation rate from Statistics Canada was 96.3% as compared to 85% from these data.

Examination, by age categories, of annual hours worked in 1980 and 1985 revealed a U-shaped trend in both years; more pronounced in 1980 than 1985. This curve is described only as a trend; there was no statistically significant difference among the mean hours worked in the separate age categories. The trough in the U corresponds to the presence of more children in the 2-to-5 and 6-to-11 age ranges. Thus respondents tended to interrupt their careers when their children were 2-to-11 years old, and then return to work.

Table 1

Distribution of Five-year Career Patterns:1981 to 1985

Pattern	Absolute Frequency	Relative Frequency (%)
Continuous		
Full-time	141	24.1
Part-time	158	27.0
Full-time and part-time	79	13.5
Not working for pay	11	1.9
Other than Nursing	2	.3
Not Continuous (interrupted)		
Interrupted with not working for pay	92	15.7
Interrupted with unemployment	30	5.1
Interrupted with other than Nursing	27	4.6
Interrupted with student role	27	4.6
Missing values in any year	<u>18</u>	<u>3.1</u>
Total	585	100.0

Table 2

Summary of Ranking of Variables in Eight Models Tested

Variable	1980				1985				Rank in Model		Forecasting		Score
	Annual Hours	Employ. Status	Annual Hours	Employ. Status	Annual Hours	Employ. Status	Five-year Group	Pattern 6 Group	Annual Hours	Employ. Status	Annual Hours	Employ. Status	
Sex role attitude	2	7	1	3	1	1	1	1	1	1	1	1	17
Position	1	2	2	2	4	4	3	3	5	10	5	10	29
Interruptions	4	5	10	5	2	5	2	2	2	2	2	2	32
Children 2-5	10	3	3	4	3	4	6	6	6	3	6	3	38
Shift	5	1	4	1	10	1	4	4	10	10	10	10	45
Spouse's salary	10	10	5	8	6	8	10	10	4	6	4	6	59
Total children	3	10	10	10	10	10	5	5	7	5	7	5	60
Children < 2	6	6	10	10	5	10	10	10	10	4	10	4	61
Children 6-11	10	4	6	6	10	6	10	10	10	10	10	10	66
Age of nurse	7	8	7	10	10	10	10	10	8	10	8	10	68
Health	10	10	10	7	10	7	10	10	3	10	3	10	70
Education	10	9	10	10	7	10	7	10	9	10	9	10	75
R-square*	.51	.40	.41	.58	.45	.44	.44	.44	.26	.25	.26	.25	

*R-square for the employment status and pattern models which were estimated with discriminant analysis = 1 - Wilks' lambda.
10 means the variable did not enter the model.

Examination of the five-year detailed career pattern (Table 1) showed that, in contrast to the within-year participation rates of 85%, the five-year participation rate was 64.6%. That is, 64.6% of the respondents worked continuously, either part-time or full-time over the entire period from 1981 to 1985. Only 24% worked full-time continuously for the five-year period, and 27% worked part-time for the total period.

In Table 2 the rank of the important variables selected by stepwise estimating procedures are compared and a calculation of their overall importance is presented. The within-model ranks have been previously assigned, either according to the size of the total causal effects in the decomposition of zero-order correlations for annual hours models, or according to the step at which a variable entered the stepwise discriminant analysis for the employment status models. Each variable that entered some but not all models was assigned a rank of 10 in those models in which it was *not* significantly ranked. A ranking score was assigned to each variable by adding its rank positions across the eight models. This weighting scheme allows the variables to be ranked according to their overall importance, taking into account their relative rank in the individual models and the number of models in which a particular variable participated.

Table 2 shows that sex role attitude was clearly the most important variable in the models tested. It was highly ranked in all of the models except one. Position was a clear second. Previous career interruptions ranked third. The presence of children between two and five years old ranked fourth. The shift which a nurse worked ranked fifth. Spouse's salary ranked sixth, followed by several further family life cycle variables, - total number of children, children under the age of two, children between the ages of six and eleven and the age of the nurse. Health of the nurse ranked eleventh, followed by nurse's education. The other variables postulated in the conceptual model - nurse's wage, rural or urban residence, home ownership status, spouse's employment status, length of service, and the presence of children over the age of 12 - were not significant in any model and therefore do not appear in Table 2.

Discussion

The results of this study indicate that the current high labour force participation rate for married registered nurses will likely continue because it is influenced more by such long-term trends as increasingly egalitarian sex role attitudes, increasing participation by mothers of young children and work-related factors rather than by factors related to the difficult economic times of the early 1980's.

Sex role attitudes are strongly associated with labour force participation; those nurses holding an egalitarian attitude are more likely to work more

hours in a given year, to work full time rather than part time or not work, and to work full time or part time over a five-year period, rather than to interrupt their participation. Sex role attitude is a stronger predictor of married nurses' labour force participation than work commitment, family life cycle or economic considerations. Sex role attitude among married women has been demonstrated in previous research to be shifting increasingly toward egalitarianism (Mason, Czajka & Arber, 1976; McBroom, 1984; Waite, 1979). The relationship of sex role attitudes and labour force participation among the nurses in this study is similar to that of women in general. Therefore married registered nurses' labour force participation rates (85%) should continue at the current high level and even increase.

Given this strong association between sex role attitude and labour force participation, two main implications arise. The first is that monitoring sex role attitudes could be a good way to predict trends in labour force participation rates. The second implication centers on the feasibility and the ethical justification of objectives in nurses' educational programs directed toward increasing the egalitarian attitudes of nursing students.

Work commitment was conceptualized in this study as a function of work-related factors, and was found to be strongly predictive of labour force participation. Those with a stronger work commitment worked more than those with a weaker commitment. This is an important association because work commitment, more than any of the other concomitants studied, should be amenable to direct manipulation by competitive employers and nursing groups, to increase participation if they so wish. Work commitment and job satisfaction have also been linked to performance quality (Hall, VonEndt & Parker, 1981), which adds to the importance of their encouragement.

Of the three variables measuring work commitment, position was the strongest predictor of labour force participation. Position was conceptualized as representing status and autonomy. Thus strategies that increase status and autonomy for nurses at all levels in the work hierarchy, and particularly at the staff nurse level where the majority of nurses work, should increase participation. Examples of such strategies which have been proposed by other authors are: career counselling by employers and educational institutions to plan goals for advancement; awarding clinical appointments in cooperation with nursing schools in order to recognize clinical excellence; placing nurses on institutional policy committees (Friss, 1981); and providing monetary recognition commensurate with educational investment and work responsibilities of nurses that is comparable to other workers in the institution and in society,

Previous career interruptions was the next most important of the work commitment variables, as a predictor of labour force participation. A nurse who

had previous career interruption was more likely than one who had not to be not working in a particular year or to have more interruptions over the five-year period studied. A strategy of accommodation between employing institutions and nurses with previous career interruptions that treated such nurses, "not as uncommitted transients but as astute career negotiators seeking to achieve a balance in their life space" (Friss, 1981, p.19), would facilitate their return and use the contribution that they are able to provide.

The results of this study support the idea that shift work afford flexibility that allows a nurse to maintain a work commitment, in spite of family responsibilities or alternatively, that shift work affords more work satisfaction than the day shift. However, such support is inconclusive because an alternative explanation, that shift work was the only option available, cannot be ruled out. Unfortunately, the data did not allow testing of these alternative hypotheses.

In summary, work commitment, rather crudely measured in this study with behavioural variables, position, previous career interruptions and shift proved to be an important predictor of married registered nurses' labour force participation. Work commitment is a function of work satisfaction and this is the most amenable to manipulation of all of the factors studied; as such, further research in the area is needed to test the assumptions made in this study.

Family life cycle variables, taken together, were the third most important predictor of labour force participation, following sex role attitude and work commitment. While the presence of children below the age of 11, and particularly between the ages of two and five were a significant and stable deterrent to the participation of their mothers, an increase in the participation of young married nurses between 1980 and 1985 was also evident. This increase parallels a profile of Canadian women in general, and projections of future participation rates of married women indicate that the increase is expected to continue. Implications for forecasting the future supply of nurses, then, are that the supply should increase as more nurses continue to work through their childbearing years. Employers who wish to take advantage of this trend could promote the employment of young mothers with flexible hours, time sharing and child care policies.

Of the economic variables, only spouse's salary was an important predictor of labour force participation. Further, the importance of spouse's salary has increased over time from 1980 to 1985, paralleling a down-turn in the provincial economy. Thus economic need was demonstrated to be an important factor in married nurses' labour force participation, although less important than sex role attitude, work commitment and family life cycle factors. The nurse's own wage was not an important predictor of employment in any

of the models. Whether or not this lack of importance can be attributed to the association of wage with other variables (particularly with position and previous career interruptions), to the narrow variance of wage when calculated from provincial collective bargaining contracts, or to a "real" unimportance was not ascertainable from these data and analyses.

Significant among the other factors studied was the finding that education was only weakly, but positively related to labour force participation. Some of the weakness could be attributed to the fact that nurses who had a higher education were married to spouses who earned more, thus these nurses had less economic need to work. However, arguments that baccalaureate entrance to practice would increase labour force participation among nurses are not supported by these findings.

In conclusion, this research has indicated that labour force participation for married registered nurses is characterized by periods of interruptions and part-time work. Whether such a nurse works or not is the result of a complex interplay of factors: her beliefs about the propriety of a married woman working, the satisfaction she derives from work, the presence of young children in the home and her family's economic need. Within the scheme of the variables studied, educational level and health status contribute a minor influence to the decision on whether or not to work.

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This paper is based on research conducted while both authors were in the Department of Community Health Sciences, Faculty of Medicine, University of Calgary. The study was partially funded by the Alberta Foundation for Nursing Research.

RÉSUMÉ

Participation des infirmières mariées à la population active

Traditionnellement, les politiques de planification du personnel infirmier ont cherché à augmenter ou à écourter les programmes de formation professionnelle. Mais étant donné que la profession d'infirmière est essentiellement dominée par les femmes, que la majorité des infirmières sont mariées et qu'une femme mariée doit créer un équilibre entre son travail et ses responsabilités familiales, leur participation est souvent de courte durée ou de nature intermittente. Une méthode plus fructueuse consisterait peut-être à s'intéresser davantage aux infirmières déjà formées.

L'étude a été conçue comme sondage rétrospectif exploratoire. Les données ont été recueillies au moyen d'un questionnaire envoyé à un échantillon randomisé de 1000 infirmières mariées de Saskatchewan, membres de l'Association des infirmières diplômées de la Saskatchewan, au cours des cinq dernières années. On a obtenu un taux de réponse de 61% après un envoi et une carte de suivi.

La structure conceptuelle posait en principe que la décision d'une infirmière mariée au sujet de son travail subit l'influence de facteurs et de besoins économiques, de ses attitudes sur la propriété des femmes au travail, de l'étape du cycle de la vie familiale où elle se trouve, de facteurs liés au travail et d'autres facteurs comme l'éducation, la santé et le fait d'habiter en zone rurale/urbaine.

L'analyse du cheminement de carrière quinquennal des répondantes a révélé que contrairement à des taux de participation de 85% en 1980 et 1985, seulement 64% des répondantes ont travaillé de façon ininterrompue au cours de ces cinq ans. Le taux de participation de 36% de ces infirmières mariées a effectivement été interrompu ou intermittent. D'autres résultats révèlent que les taux de participation des infirmières mariées subissent l'influence de tendances à long terme comme les attitudes de plus en plus égalitaires sur les rôles sexuels, la participation accrue des mères de jeunes enfants et des facteurs d'ordre professionnel plutôt qu'économique.