



# *NURSING PAPERS* *PERSPECTIVES EN NURSING*

The Effect of Organizational and  
Group Characteristics of  
Faculty's Perception of Climate  
in Schools of Nursing

**Volume 11, no 3**

**Fall 1979**

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Sources of Stress in University  
Nursing Students

**Volume 11, no 4**

**Winter 1979**



## NURSING PAPERS PERSPECTIVES EN NURSING

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## EDITORIAL

We are introducing a new column entitled "Viewpoint" in *Nursing Papers*. It will permit subscribers and contributors to express opinions and ideas more fully than they might in "Letters to the Editor" and more easily than they might in an article. Through "Viewpoint" it is hoped that we will attain a more comprehensive understanding of regional perspectives on all aspects of our professional endeavour.

At this time we are aware of the Chief Justice Emmett Hall's review of our present health insurance plan. What do you think of the ideas conveyed in Viewpoint which follows?

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## VIEWPOINT

### NOTES ON THE CONTRIBUTION OF NURSING TO HEALTH CARE

A review of health services in Canada is presently in progress. Nursing has a vital role to play in reorienting the health care system to goals more appropriate to our rapidly changing society.

The major shortcoming of our present health insurance plan is that, although it has undoubtedly improved the organization and delivery of health care, it is providing the same type of health care as in the past, mainly diagnostic and curative with some prevention. This type of health care is viewed as comprehensive by health care planners and — once it becomes available, accessible, and universally distributed — as successful. Hence, we have seen a resurgence of ideas relative to health care planning, availability of services at the local or community level, team work, and a more rational distribution of the tasks of health professionals. Herein lies the basic fallacy: the assumption that we needed more of the same type of health care and that the real problems were ones of organization and delivery of services. Through this approach, expectations have been raised for unlimited development and progress through the vast and costly technology of medicine.

Having reached a pinnacle in the expansion of technology and in the consumption of resources in our society, we are now beginning to question such a philosophy and the values which it implies. As our views gradually shift we are thinking more about cost containment and the development of renewable resources (Knelman). The strength of the health care system lies in its potential to contribute to the development of human resources, that is healthy people, healthy

families, and healthy communities. First it is necessary to separate the ideas of health and illness: they are different ideas, different variables, they are not unidimensional and they are not continuous. Disease and the prevention and treatment of illness denotes extensive technology, energy consumption, expensive biomedical research, centralization in cities, high costs, long and costly education of professionals, and although of some benefit to all it serves mainly a small percentage of the population at any point in time. Health, on the other hand, is fundamentally a social process based on interpersonal attributes and learning phenomena. It can be communicated readily within institutions such as the family and the school and across groups and people through the media. Comparatively, it requires only moderate outlays of funds for the education of health professionals and for research. It would benefit the whole population at a much lower per capita cost than the per capita cost of the present system for the population it serves. In looking to the future of Canada as a conserving society with emphasis on the development of renewable resources, it is clear that Health Insurance Plans must transfer a much larger share of available resources to the real health dimension of their operation.

It is unfortunate that health and illness are dealt with in the same ministry, departments, and set of institutions. Health receives short shrift, in fact it is perceived within the same philosophy and set of principles as disease and illness. At the moment, the health market in this country has been cornered not by "health" professionals but by commercial enterprises — foods, diets, equipment for physical health, supplies, regimes, studios, and so on. Social scientists, having discovered the territory of health, are providing most of the new knowledge available. This knowledge is being used in many spheres: in social marketing, by social science clinicians, and by voluntary groups. To date the growing body of knowledge about health and healthful living has all but escaped our tax supported health insurance schemes as it continues to support the vested interests of the traditional "health" professionals.

A major upheaval in the philosophy underlying health care is required. Our priorities should be directed toward the development of healthful living styles, of healthy families, and of healthy communities. It is time to identify and to plan for the resources that are required. As a social phenomenon, health tends to be an attribute of a group, or of a family or community. The individual is, to a large extent, healthy as a reflection of some larger unit. Health is related to potentials, strengths, and aspirations and not to inadequacies, lack

and limitations. What are the resources that families/groups require to recognize and develop their potentials for healthful living? How can professionals work with families in this process? These are the questions that health service planners need to ask.

Nursing in its most recent publications, demonstrations and research projects sees a broader scope for the function of nursing in our society — a role in which nursing is the primary health resource for families and for the community. Health not illness! It is not that illness is disregarded, but that it is integrated within family and community life, it is a feature of the health of the community, but only one. It is urgent that nursing outline in detail its function in the promotion of health, that is its goals, roles, and actions. A report to government of this nature along with the report already presented by the medical profession<sup>1</sup>, would do much to provide at least the base upon which to establish the health component of primary health care for individuals and families (Spitzer, the Task Force Report, 1979).

In comparing the practice of nursing across three family medicine units recently, we found that clients served by these units were helped with a greater number of problems and more effectively when nurses concentrated on health *as opposed* to illness problems, that is when nurses assisted clients to cope in a healthy fashion with life situations including illness. Nurses who concentrated on the health problems of their clients saw their clients more frequently than nurses who concentrated on illness problems, were readily available to them, and worked with them to achieve goals related to health (Allen, Smith & Gottlieb). In another project entitled "The Workshop — A Health Resource: A Prototype in Community Health Nursing," we have been exploring and developing a practice of nursing directed towards family and community health (Allen, Warner). Some of the questions we are examining within the practice of nursing are as follows:

- What are the attributes of a healthy family?
- What factors influence the development of healthful living styles?
- How do families learn to be healthy?
- How can people be motivated to spend time and energy on health matters?
- How can the family, instead of just the mother, be persuaded to pursue the family's health?

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<sup>1</sup>The medical profession has already outlined its role in prevention of disease in the Task Force Report on The Periodic Health Examination printed in the *Canadian Medical Association Journal*, November 3, 1979, Vol. 121.

The evaluation of this work, both the practice and the service, considers the extent to which client/families are involved in a learning process, learning to cope with the usual happenings in the life process: birth, growth and development, parenting, crises, family relationships, goal achievement, chronic illness, retirement, aging, etc. With similar attempts to develop the practice of nursing and to examine and investigate both the process and outcomes in centers across the country, nursing should soon be in a position to validate its function in family and community health.

### *NURSING ACTION FOR THE IMMEDIATE FUTURE*

1. That the nursing profession assume greater responsibility for a major portion of primary health care. The main "at risk" group with respect to health in our society is the family and secondly, the community. It is important that nursing deal with each of these as units, not by more and more programs to prevent illness or specialized programs focused by age, sex, or type of work. As we direct our service to families and to the community, specific projects and programs related to health will evolve generated out of the work with families and community.
2. That the nursing profession further its knowledge and practice base relative to health, through demonstrations, pilot projects, studies and research to answer some of the searching questions related to health and to nursing practice directed toward family and community health.
3. That persons entering university nursing programs be socialized from the beginning into the broad function of community nursing directed toward health. (It must be remembered that hospitals are part of a community and disease and illness features of family and community life.)
4. That services directed toward health be financed through a national health insurance plan separate from the present illness oriented plans and that nurses be renumerated for their services in this plan.

The nursing profession must seek support from the public and from government so that it may legitimately take on a greater responsibility in primary health care; carry out exploration (demonstration) and research required to produce knowledge about family and community health as a basis for the evolution of practice; and educate a

much larger proportion of nurses in programs designed with these ends in view.

*Moyra Allen*

February, 1980

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## EDITORIAL

Nous sommes heureux de vous proposer une nouvelle rubrique intitulée "Point de vue" dans notre revue *Perspectives en nursing*. Cette rubrique permettra à nos abonnés et collaborateurs d'exprimer leurs points de vue et idées de manière plus détaillée que dans la "Lettre à l'Editeur" et plus aisée que dans le cadre d'un article. Grâce à "Point de vue," nous espérons parvenir à une meilleure compréhension des perspectives régionales quant à tous les aspects de notre action professionnelle.

Nous savons que le juge en chef Emmett Hall procède actuellement à une étude sur notre régime d'assurance-maladie. Que pensez-vous des idées exprimées dans la rubrique "Point de vue" qui suit?

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### POINT DE VUE

#### L'APPORT DES SCIENCES INFIRMIERES AUX SOINS DE SANTE

Une étude sur les services de santé au Canada est en cours de réalisation. Les sciences infirmières ont un rôle essentiel à jouer pour réorienter le système de soins de santé vers des objectifs mieux adaptés à l'essor rapide que connaît notre société.

#### UNE ACTION PROPOSEE EN SCIENCES INFIRMIERES DANS L'AVENIR IMMEDIAT

1. Que les infirmières et infirmiers assument davantage de responsabilités en ce qui concerne une partie importante des soins de première ligne. Les groupes sociaux dont la santé est le plus exposée sont d'abord la famille, puis la collectivité. Il est important que notre discipline traite chacun de ces groupes individuellement, et non par un nombre sans cesse croissant de programmes visant à prévenir la maladie ou de programmes spécialisés axés sur l'âge, le sexe ou le type de travail. Tandis que nous axerons nos services sur la famille et sur la collectivité, nos travaux aboutiront à la mise sur pied de projets et programmes spécifiques propres à la santé de ces groupes.
2. Que les infirmières et infirmiers approfondissent leurs connaissances théoriques et pratiques en matière de santé par des démonstrations, des projets pilotes, des études et des recherches afin de répondre à des questions importantes relatives à la santé et à la pratique en sciences infirmières, axées sur la santé familiale et communautaire.

3. Que les personnes entreprenant des études universitaires en sciences infirmières soient au courant dès le début de la vaste fonction du nursing communautaire centré sur la santé. (Il faut se rappeler que les hôpitaux font partie intégrante d'une communauté et que la maladie est un trait de la vie familiale et communautaire.)
4. Que les services axés sur la santé soient financés à même un régime d'assurance-maladie national distinct des régimes actuels centrés sur la maladie et que les infirmières et infirmiers soient rémunérés pour leur services dans le cadre de ce régime.

Infirmières et infirmiers doivent s'assurer du soutien du public et du gouvernement pour pouvoir assumer en toute légitimité de plus grandes responsabilités en matière de soins de première ligne. Ils doivent également procéder à des explorations, des démonstrations et des recherches afin d'accroître leurs connaissances en matière de santé familiale et communautaire, qui serviront de base pour favoriser l'évolution de leur profession. De plus, il convient de former un bien plus grand nombre de collègues à l'aide de programmes conçus avec ces objectifs en vue.

*Moyra Allen*  
Février 1980

# THE EFFECT OF ORGANIZATIONAL AND GROUP CHARACTERISTICS OF FACULTY'S PERCEPTION OF CLIMATE IN SCHOOLS OF NURSING\*

MERLA HELENA DYCK

Director of Research, Development  
and Planning at the Misericordia  
Hospital in Edmonton, Alberta

## CONTEXT OF THE STUDY

### *Introduction*

Every organization has an aspect known as internal environment, milieu, institutional atmosphere, or psychological or organizational climate. Organizational climate has been defined in very broad terms, such as the personality of the organization (Forehand and Gilmer, 1964), the feel of the employees (Dressler, 1977, p. 286), "an umbrella concept" (Hall, 1975, p. 226) or "an employee's subjective impression or perception of his organization" (Lawler, Douglas, Hall and Oldham, 1974).

### *Research Problem*

Although organizational climate studies have been common in industry and elementary and secondary schools, relatively few climate studies in Canadian post-secondary institutions were found (Russell, 1974, p. 79). No studies were found which investigated organizational climate in schools of nursing.

Studies conducted in industrial settings have indicated that individuals at different levels in the hierarchy, in different formal or informal groups, with varying degrees of involvement and commitment would not have identical perceptions of leadership behaviour, organizational constraints, and so on. The research question in the present research asked: How do group and organizational characteristics affect a member's perception of climate in Canadian University Schools of Nursing? Eight subproblems were formulated to address the problem. The subproblems related to the impact of the independent variables (namely hierarchy, rank, tenure, experience on present faculty, experience in nursing education, age, type of contract and type of assignment) on the dependent variable (namely perception of climate dimensions).

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\* A summary of a Ph.D. dissertation completed in July, 1978 in the Department of Educational Administration at the University of Alberta



## *Literature Review*

During the early 1960's researchers were active in the development of climate instruments and in studies diagnosing organizational climate in industrial organizations and public schools (Halpin and Croft, 1963; Null, 1967; Pace, 1968; Sargent, 1967; Wilson, 1966). Climate research was considered significant for three reasons:

1. As an initial step in problem solving through assessment.
2. As a means of preventing problems through periodic monitoring of the situation.
3. As an incentive in the process of self renewal within an organization (Fox, Schmuck, Van Egmond, Ritvo and Jung, 1973, pp. 129-134).

The concept of an overall label of climate as in "open climate" or a "closed climate" was subjected to considerable criticism (Andrews, 1965). By the late 1960's the emphasis for researchers was on developing climate dimensions and on investigating relationship of climate to other aspects of organizations.

Campbell, Dunnette, Lawler and Weick (1970, p. 393), after analysing climate conceptualization and instrument development by and Litwin and Stringer (1968), Schneider and Bartlett (1970), Kahn, Wolfe, Quinn, Snock and Rosenthal (1964), and Tagiuri (1968), found that each included some aspect of the following five core dimensions:

1. Individual autonomy, referred to individual responsibility, independence, rules orientation and initiative.
2. The degree of structure imposed upon the position, included leader behaviour such as initiating structure, supervision, and direction.
3. Reward orientation, included promotion and recognition practices, as well as an achievement emphasis.
4. Consideration, warmth, support, referred to aspects of consideration and trust on the part of the leader.
5. The group, referred to cooperativeness, tolerance of conflict, interpersonal peer relationships, and an honest, open relationship among peers.

Theories such as those developed by McGregor (1960), Argyris (1964), and Likert (1967) have been the basis of research examining the relationship of organizational climate to other aspects of organizations. Gorman and Molloy (1972, p. 1) stated: "The assumptions we make about people guide and direct the way we behave

towards them . . . and generally continue to shape organizational structures and practices."

Definitions of organizational climate may be derived from the views that theorists hold of the relationship of climate to other aspects of the organization. Organizational climate may be conceived of as (1) an independent variable, (2) an intervening or moderating variable, or (3) a dependent variable. Hellriegel and Slocum (1974) used such a classification to survey and categorize studies of organizational climate. Most frequently, organizational climate has been thought of as an independent variable influencing the satisfaction and productivity of the organization's members (Dessler, 1976, p. 187; Cawsey, 1973, Hand, Richards and Slocum 1973).

Organizational climate may also be studied as the variable dependent on organizational dimensions such as leadership behaviour, organizational structure, and technology (Litwin and Stringer, 1968; Stimson and LaBell, 1971; George and Bishop, 1971).

Organizational climate is not always conceived of as either a dependent or an independent variable, but may rather be conceived of as an intervening or moderating variable. In this respect organizational climate has been referred to as a "go between" or "link" (Dessler, 1976, p. 190), a "bridge" (Dessler, 1977, p. 287); or a "filter" between organizational characteristics such as structure, technology, leadership style, and aspects of members' feelings and behaviour such as motivation, satisfaction, performance (Litwin and Stringer, 1968, p. 43). Hellriegel and Slocum (1974) reported studies such as those by Marrow, Bowers and Seashore (1967) and Hand et al. (1973), in which climate was conceived of as an intervening variable.

Researchers began further investigation of differences in perceptions of climate of members of a single organization. Based on the findings of studies by Herman, Durham and Hulin (1975), Forehand and Gilmer (1964), and Porter and Lawler (1965) indicating that a member's current position in an organization is more significant in determining perception of climate than are demographic characteristics, the focus of the present research was on the impact of group and organizational characteristics of climate. Hellriegel and Slocum (1974, p. 256) suggested that there continues to be a need to identify differences of climate perception based upon "objective individual measures."

#### *Conceptual Framework*

The model proposed by Dessler (1976, p. 176) formed the basis for identifying the relationship of organizational climate to other

aspects of an organization (see Figure 1). Conceptually climate was viewed as the intervening variable between objective organizational structure and processes (independent variables), and attitudes and behaviours of organizational members (dependent variables).

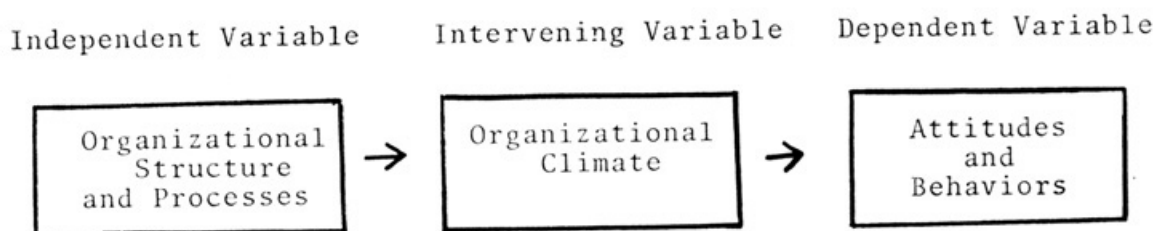


FIGURE I

The Relationship of Climate to Other Aspects  
of an Organization

Although this model was useful for the purpose of conceptualizing organizational climate as it related to other aspects of organizational structure and process, this study focused only on the effects of selected aspects of organizations on organizational climate. Thus climate was studied as a variable dependent on the independent variables of structure and process.

Hellriegel and Slocum's (1974, p. 256) definition of organizational climate was found useful in conceptualizing organizational climate as:

... a set of attributes which can be perceived about a particular organization and/or its subsystems, that may be induced from the way that organization and/or its subsystems deal with their members.

### *Significance of the Study*

This study added to the theory of organizational climate through an understanding of the effect of selected organizational and group characteristics on perception of climate in nursing faculties. Since the data were analysed on the basis of group responses to the climate questionnaire, the data offered information about subsystems within a university nursing department.

The study also contributed to knowledge about university schools of nursing in Canada. No studies were found which investigated organizational climates in schools of nursing.

### *Delimitations of the Study*

1. The study was delimited to one type of organization, namely, university schools of nursing.

2. The study was delimited to selected nursing faculties.

(a) in which the basic language used was English,

(b) that offered both a basic baccalaureate program in nursing and also a master's program in nursing.

The above criteria delimited the study to seven university schools of nursing. Six of the schools agreed to participate in the study.

3. The study was delimited to perceptions of faculty members only.

4. The independent variables were delimited primarily to factors related to faculty members' position in the organization hierarchy, rank, tenure, experience, age, contract and assignment. The dependent variables were the dimensions of climate.

5. Since individuals and institutions were assured anonymity, no attempt was made to compare identified groups in the institutions. For example, mean responses of administrators were not compared across institutions.

## RESEARCH DESIGN

### *Instrument Selection*

Several climate instruments were examined (e.g. Halpin and Croft, 1963; Borrevik, 1972; Pace, 1968; Litwin and Stringer, 1968).

Litwin and Stringer's (1968) Climate Questionnaire (Form B) appeared to be a useful instrument and was selected for use in this study since it included the five core dimensions identified by Campbell et al. (1970). In addition, organizational structure, a dimension included in many instruments, was included in the Litwin and Stringer instrument.

In the original development of the tool, Litwin and Stringer sent open ended questions to various members of the General Electric Company. The responses were analysed and forty-four items in eight categories were isolated by judges experienced in content analysis. Due to lack of agreement one category was dropped and two were combined. Thirty-one items in six categories formed the basis of the initial Climate Questionnaire (Form A).

In order to evaluate the consistency of the scales, the questionnaire was administered to various business and university personnel. Following further modifications to the instrument items and scales, Litwin and Stringer (1968, pp. 81-82) identified nine scales for the Climate Questionnaire (Form B) :

1. Structure — measured role clarity, decision making structure, emphasis on formalization, channels of communication, and degree of standardization.
2. Responsibility — emphasized autonomy, use of judgment, type of supervision, innovativeness, and responsible behavior.
3. Reward — examined the basis for promotion, recognition, encouragement and criticism.
4. Risk — measured the encouragement and discouragement given to risk taking and innovativeness.
5. Warmth — measured the degree of friendliness, warmth or aloofness among peers.
6. Support — measured the degree of assistance, sympathy, and general people orientation of the administration.
7. Standards — examined priorities in the organization, the degree of initiating structure and thrust exhibited by the leader, and feelings of pressure or challenge experienced by the group members.
8. Conflict — focused on the attitude toward and tolerance of conflict. It questioned if smooth, quick decision making is valid, if competitiveness is considered healthy, and if members may freely disagree with superiors.
9. Identity — measured the member's feelings of belonging, pride and team membership.

### *Validity and Reliability of the Instrument*

Over a period of time Form B of the Climate Questionnaire was administered to groups of organizational members of varying levels within the organization. Litwin and Stringer (1968, pp. 82-83) stated :

Scale consistency, referring to the extend that items in the scale are positively related and measuring the same thing, is considerably better than in the initial measure . . . . The items in the Standards scale were new, and two of these items correlated fairly substantially with items in the Responsibility scale. It was felt that some rewording would solve their problem. The Conflict scale. . . appeared to have some basic weaknesses. . . it is most likely to measure the presence of conflict.



These identified weaknesses did not lead to further revisions by Litwin and Stringer.

### *Modification of Instrument Items*

Since the Climate Questionnaire (Form B) was developed for use in industrial organizations, it was necessary to modify items so that their meaning would be relevant and their wording meaningful to nurse educators.

### *Pilot Study*

Having modified items in the Climate Description Questionnaire, one of the larger Canadian university schools of nursing, not selected for the research, was asked to assist with a pilot study. Faculty members were asked to rate each item on a scale of eight from unclear to clear. They were further encouraged to identify which aspects of items were unclear and/or might be clarified. An effort was made to clarify items without changing the meaning of the item. For example, a question which read: "We have to take some pretty big risks occasionally to keep ahead of the competition in the business we're in," was changed to read: "In our faculty we have done well because we were innovative (creative, took calculated risks)."

### *Additions to the Instrument*

A section on personal data was developed to allow for description of respondents, and to facilitate the analysis of group differences.

### *Data Collection*

Questionnaires were sent to all 269 faculty members of the selected university schools of nursing. Each questionnaire was accompanied by a cover letter assuring respondents of anonymity and offering directions.

Faculty members were asked to respond to each item on a Likert type scale from 1 to 4: definitely disagree, inclined to disagree, inclined to agree, definitely agree. There were 191 (71 percent) useable returns.

### *Data Analysis*

*Frequency distributions.* Based on the frequency distributions of items, means of responses were identified to provide a profile of overall perceptions of members of nursing faculties in the six selected schools (see Figure 2).

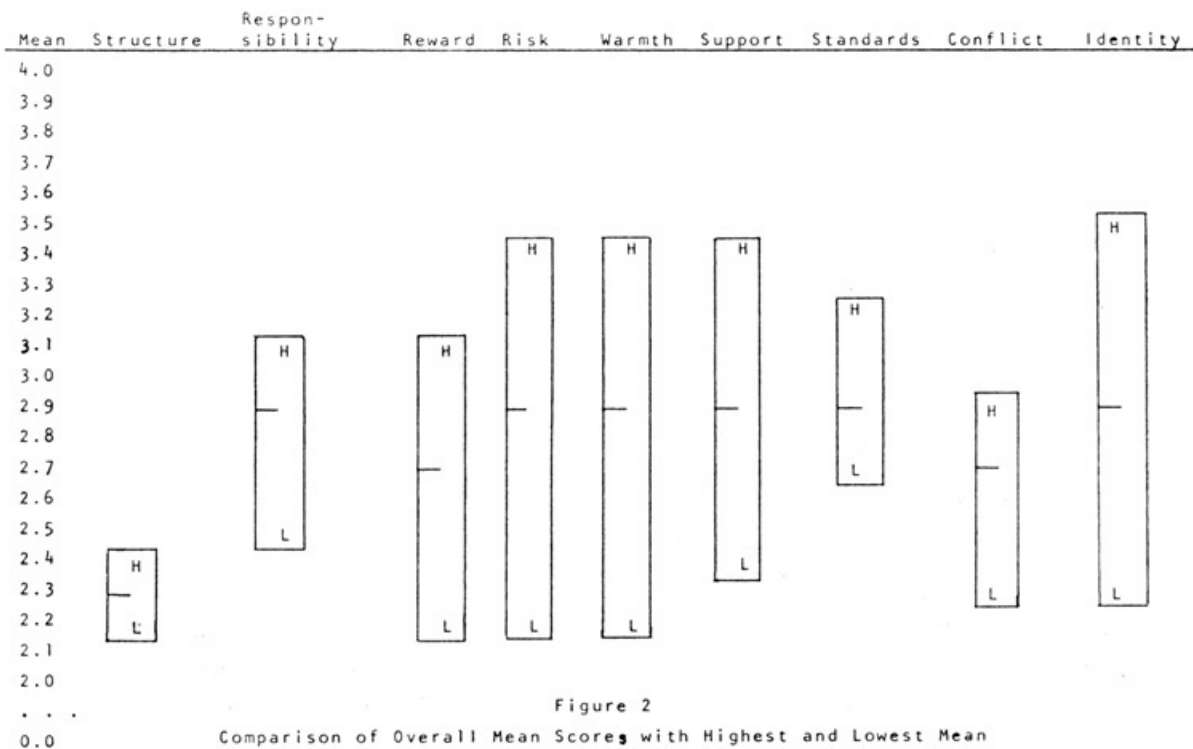


Figure 2

Comparison of Overall Mean Scores with Highest and Lowest Mean Faculty Score on Climate Dimensions

Note: Horizontal line = overall mean score; H = highest faculty mean score; L = lowest faculty mean score.

Frequency distributions of the personal data in the questionnaire facilitated the description of respondents. It was possible, for example, to determine the percentage of respondents who were administrative as opposed to teaching faculty (see Table 1).

Groupings from the section on personal data were used as the independent variables to achieve the major purpose of the study: to investigate the impact of organizational and group characteristics on the perception of organizational climate.

*Scoring of items and analysis of data.* The scoring technique developed by Dr. Litwin was used for reflection of some items (reversing of scores) so that all high responses were positive on a particular scale. To determine differences in the mean responses of various groups on the nine scales of the climate questionnaire, t tests and F tests were employed. The raw scores obtained appeared to reasonably satisfy the assumptions of the analysis of variance.

## FINDINGS AND DISCUSSION

### *Description of Respondents*

Using the data from Part II (Personal Data) of the questionnaire, respondents were categorized on the basis of the independent variables. The results are indicated in Table 1.

### *Findings and Discussion related to Subproblems*

*Subproblem 1 — Hierarchy.* How did administrative faculty members differ from teaching faculty members in their perception of the organizational climate?

There were statistically significant differences between the mean responses of administrators and teachers on five of the nine climate dimensions. From this finding it might readily be concluded that administrators and teaching faculty differed in their perceptions of climate. This conclusion supports the finding of studies by Payne (1973), Schneider (1973), and Gorman and Molloy (1972) who found that position in the organization does affect perception of climate.

In the present study administrators' mean scores were higher than teachers mean scores on the dimensions of reward, and support ( $p < .01$ ) and on the warmth, conflict and identity dimensions ( $p < .05$ ).

Most promotions, changes in status, or increases in salary result from recommendations of a faculty's administration. Consequently, perception of reward reflects on the administration. It was not surprising that the administration of a faculty would have a more positive perception of the reward system than would the teaching members of faculty. Similarly, items on the support dimension focused largely on the support of the administration for members of faculty and the conflict scale also reflected largely the attitudes of the administration, since it is generally administrators who either tolerate or do not tolerate conflict. The other two dimensions showing significant levels of differences in response were warmth and identity. These scales reflected the friendliness and comradeship among members of the faculty. Perhaps administrators expected faculty members to support the administration and, therefore, perceived the members as identifying with the organization, working as a team and showing warmth and friendliness toward each other.

Although there were no statistically significant differences on the other scales, the mean responses indicated that the administrators,



TABLE 1  
CLASSIFICATION AND DISTRIBUTION  
OF RESPONDENTS

Categories		Frequencies	Percentages
Hierarchical Level	Administrative Teaching	23	12.1
		167	87.9
		N=190	
Rank	Professor	12	6.3
	Assoc. Prof	46	24.2
	Assist. Prof.	68	35.8
	Lecturer		
	Instructor	52	27.4
		N=178	
Tenure	Tenure	61	32.3
	Non tenure	128	67.7
		N=191	
Years on Faculty	1	38	18.5
	2 - 4	74	39.2
	5 - 10	55	29.1
	Over 10	25	13.2
		N=189	
Years in Nursing Education	1	20	10.5
	2 - 4	34	17.9
	5 - 10	66	34.7
	Over 10	70	36.8
		N=190	
Age	21 - 25	28	14.7
	30 - 39	70	36.8
	40 - 49	60	31.6
	Over 50	32	16.8
		N=190	
Contract	Full time	169	88
	Part time	23	12
		N=192	
Assignment	Classroom	37	21.1
	Clinical	59	33.7
	Both	73	41.7
		N=169	

when compared with the teaching faculty, identified the organization as less structured, encouraging more individual responsibility, allowing for more creativity, and less demanding of high performance standards. In short, the administrators perceived the organization as highly considerate of its members.

It might be concluded that administrators and teaching faculty in schools of nursing differed in their perceptions of organizational climate. Specifically, administrators perceived the organization more favorably than did the teaching faculty.

*Subproblem 2 — Rank.* How did faculty members of different rank vary in their perceptions of the organizational climate?

There were statistically significant differences in the mean responses of faculty members at different ranks on six of the nine climate dimensions.

The findings of this study supported the results of studies identified for comparison. Porter and Lawler (1965), Payne and Mansfield (1973), Schneider (1973), Gorman and Molloy (1972) and Herman et al. (1975) all found that position in an organization affected perception of climate.

The four groupings employed in the data analysis were professor, associate professor, assistant professor, and lecturer/instructor.

Analysis of variance revealed significant differences between the groups beyond the 0.05 level on the climate dimensions of structure, responsibility, support, conflict and identity. Significant differences beyond the 0.001 level were noted on the reward dimension.

The nature of the differences was investigated further by application of the Scheffé multiple comparison of means test. Faculty at the associate and full professor ranks not only perceived greater rewards from the administration than did the assistant professor and the lecturers/instructors, but they also perceived the administration as being more supportive, of tolerating more conflict, and of allowing them a greater degree of autonomy. These findings were not surprising since the perceptions were probably accurate reflections of reality. What was more difficult to understand was the finding that associate professors perceived the organization as significantly more structured than did the assistant professors. A comment by Payne and Mansfield (1973, p. 523) perhaps provided a partial explanation:

. . . specialization, and the increasing professionalization associated with specialization, does lead to more stimulating

climates in the area of work itself, that is, scientific and technical orientation, intellectual orientation, job challenge, task orientation, and industriousness. Greater specialization also helps to explain the higher degree of questioning of authority in larger organizations.

The associate professors may be the more specialized faculty members by virtue of education and experience and may as a result have perceived more structural constraints. The findings indicated that members at the rank of associate professor or full professor identified more fully with the organization and were more committed to it than were assistant professors and lecturers/instructors. They may also have been the individuals who had been with the organization for the longest period of time and had developed influential positions on the faculty.

It was further puzzling to note that, except on the risk dimension, the lecturers/instructors had higher mean scores than did assistant professors. Assistant professors had the lowest mean responses on all but the risk climate dimension. The lecturers/instructors may have been the youngest, least educated, and least experienced members of faculty. They may have perceived the climate of the organization more positively because of their own perceived fortune in being given a position on the faculty. The assistant professors, on the other hand, may have been disillusioned with their lack of power and with the length of time it takes to be promoted from one rank to another. In many nursing faculties there continues to be a high rate of faculty turnover. It would be interesting to determine if it is most frequently the assistant professors who move from one faculty to another.

It was concluded that those at the rank of assistant professor had a less favorable perception of the organization's climate than did those at the lecturer/instructor, associate professor, and those at the full professor levels.

*Subproblem 3 — Tenure.* How did tenured faculty members differ from non tenured faculty members in their perception of the organizational climate?

Tenure, like rank, could be seen as one of the objective indices related to the employee's position in the organization. Tenure, however, had far less impact on the perception of climate than did hierarchy or rank. The only dimension on which the mean responses of tenured and non tenured faculty differed significantly was the reward scale. Tenured faculty had significantly higher mean scores

on the reward dimension than non tenured faculty ( $p < 0.001$ ). The difference on the reward dimension may be explained on the basis of the security and sense of commitment of tenured faculty. Tenured members do indeed have greater rewards since they have been rewarded with the status of tenure. It was concluded that the status and security associated with tenure did not significantly influence the perceptions faculty members have of the organizational climate, except in the area of rewards where tenured members perceived greater and more equitable rewards.

*Subproblem 4 — Experience on Faculty.* How did faculty members who have been on faculty for differing periods of time vary in their perceptions of the organizational climate?

The responses were grouped into four categories: those who were in their first year on the present faculty, those who were in their second to fourth years, those in their fifth to tenth years, and those who had been with the present faculty for more than ten years. Analysis of variance revealed significant difference between groups beyond the 0.05 level on the dimensions of responsibility, risk, and identity; beyond the 0.01 level on the standards dimension; and beyond the 0.001 level on the reward dimension. The findings of the present study supported Johnston's (1976) conclusion that members who had been with the organization for varying lengths of time differed in their perceptions of climate.

The Scheffé multiple comparison of means test identified the pattern of responses was quite consistent on all scales with those in their second to fourth years having the lowest mean responses, followed by those in their fifth to tenth years. The mean responses of members in their first year and those with more than ten years on the faculty were quite similar and were higher than the mean responses of either of the other groups.

The high scores of members in their first year with the organization were not easily explained. Perhaps in their first year they were taking cues primarily from the administration. It is understandable that those who had devoted more than ten years to a specific organization would identify with the organization, and feel committed to the climate which they assisted in creating. Faculty in their first year may have felt fortunate to be members and may at the same time have been aware of the responsibilities they were given.

It might be concluded that faculty in their second to fourth years on faculty were somewhat disillusioned, or less favorably impressed

by the climate of their organization, particularly in the areas of reward, autonomy, creativity, standards and identity. They may indeed be seen as, and treated as, newcomers by the administration and by faculty with more extensive experience in the organization.

Generally, the findings of this study indicated that the longer individuals had been in contact with an organization the more positive were their perceptions of the organization's climate.

*Subproblem 5 — Experience in Nursing Education.* How did faculty members with differing lengths of experience in nursing education vary in their perceptions of the organizational climate?

Analysis of variance indicated significant differences between groups beyond the 0.05 level, in mean responses on five dimensions: reward, standards, responsibility, support, and identity. The differences were quite similar to the differences of experience on the present faculty, with the exception that it was people in their first year of experience who had higher mean responses than those with more than ten years of experience. The findings may have been unique to the time period of the study. With the national rate of unemployment at ten percent, nurses who were accepted on a nursing faculty with possibly only a bachelor's degree may equate climate to their feeling of good fortune.

On the climate dimensions of standards, support, and identity those in their first year of experience scored significantly higher than those in their fifth to tenth years of experience. On the responsibility scale those in their first year of experience scored significantly higher than those in their second to fourth years of experience. On the reward scale those with more than ten years of experience had a higher mean response than either those with two to four years of experience or those with five to ten years of experience. Faculty members in their first year in nursing education may on the one hand have felt insecure and therefore have been more aware of the expectations and responsibility placed on them, and may have perceived the organization as being more supportive and the faculty as being friendlier than was perceived by faculty members with more experience. First year teachers may, on the other hand, actually have been the recipients of more help and support.

Faculty members with more than ten years of experience perceived the rewards offered by the organization as greater and more equitable than did those with two to ten years of experience. Faculty members in their first year of nursing education perceived the organization as expecting higher levels of performance, allowing greater autonomy for individuals, being more supportive, and fostering more



of a team spirit than did those with more experience — particularly those with two to ten years of experience in nursing education.

It was concluded that both experience on present faculty and experience in nursing education were variables with significant impact on perception of climate.

No other studies were found with which to compare these findings.

*Subproblem 6 — Age.* How did members of different ages vary in their perceptions of the organizational climate?

Responses were divided into four categories: twenty one to twenty nine year olds, thirty to thirty nine years olds, forty to forty nine year olds, and those over fifty years old.

The standards dimension was the only one in which significant differences were found when perceptions of climate were studied on the basis of age. Those over 50 years of age had a significantly higher mean response than those 30-39 years of age. This finding did not seem surprising, as older faculty members had probably moved up the ranks into administrative positions, and may indeed have had greater performance expectations placed on them.

It must be concluded that age was not a significant factor affecting perception of organizational climate in nursing faculties.

These findings support the conclusions arrived at by Herman et al. (1975). In their study they attempted to identify "the sources of variance associated with employees' responses to their work environment." They found that demographic variables such as age, sex, marital status, family size, number of wage earners in the family, and education accounted for only nine percent of the variance of employees' responses.

*Subproblem 7 — Type of Contract.* How did faculty members employed on a full time basis differ from faculty members employed on a part time basis in their perceptions of the organizational climate?

There were significant differences in the mean responses of full time faculty members and part time faculty members on the dimension of structure ( $p < .01$ ), and on the dimensions of reward, support, and identity ( $p < .05$ ). In each case the higher scores were those of part time faculty members.

The findings indicated that faculty members employed on a part time basis perceived the organization as more structured, offering greater rewards and support, and having a greater sense of identity among its members than did members employed on a full time basis.

Part time faculty members are frequently the individuals with the least academic preparation. They are often assigned to clinical supervision only. Consequently, the organization with which they are most familiar is the hospital rather than the university. Part time faculty may, for example, have perceived greater structural constraints because of the highly bureaucratized work setting of the hospital.

Part time faculty may have been satisfied to have a position on a nursing faculty. They may, therefore, have perceived the reward system, support of administration, and team spirit among faculty as satisfying their needs.

It may be concluded that type of contract had an impact on perception of climate, and that part time faculty perceived climate more positively than did full time faculty.

No studies were found identifying differences in perceptions on the basis of full time/part time employment.

*Subproblem 8 -- Type of Assignment.* How did faculty members with differing assignments differ in their perception of the organizational climate?

Respondents indicated if their major responsibility was in classroom lecturing, clinical supervision, or if they had equal responsibility in both areas of nursing education. The data analysis revealed differences beyond the 0.05 level of significance in the perceptions of the three groups on the structure, responsibility, reward, and support dimensions of climate. Differences beyond the 0.001 level of significance were noted on the conflict dimension. The Scheffé test indicated that on every climate dimension those assigned primarily to classroom lecturing had a higher mean score than those assigned to both classroom lecturing and clinical supervision; and those assigned to both had a higher mean score than those assigned primarily to clinical supervision.

Statistically significant differences were found on five climate dimensions. On the conflict dimension, faculty assigned primarily to classroom lecturing had a significantly higher mean score than either those assigned primarily to clinical supervision or those assigned to both classroom and clinical teaching. The higher mean score of classroom teachers may be explained on the basis of the complexity of relationships in organizations. Faculty members assigned primarily to classroom lecturing were exposed primarily to one organization: a university department in which questioning and differences of opinions have always been acceptable and conflict is generally tolerated.

Faculty members assigned primarily to clinical supervision spent most of their time in a very different organization — the hospital. Nurses have traditionally been accustomed to taking orders. From the vantage point of the hospital, the university may indeed appear to be more tolerant of conflict.

Similarly, it appears understandable that faculty assigned to clinical supervision perceived the degree of structure in the nursing faculty as less restrictive than did faculty members assigned primarily to the classroom. Comparatively, a university department might seem much less bureaucratic than a hospital.

On the responsibility dimension those assigned to the clinical area perceived significantly less autonomy for faculty members than did members assigned primarily to classroom teaching. The differences in responses may again be explained in relationship to the organization with which the member is primarily associated. Although perceptions were of the schools of nursing, members assigned primarily to the clinical area may well have been influenced by the constraints of the bureaucratic hospital setting.

Lastly, faculty members assigned to classrooms perceived greater and more equitable rewards for faculty members than did those assigned primarily to clinical supervision. Possibly many of those members assigned primarily to clinical supervision lacked academic preparation and, therefore, had a lower salary and less opportunity for promotion.

These findings support an assumption made by Evans (1968, p. 113) :

Organizational members performing different roles tend to have different perceptions of the climate, if only because of (a) a lack of role consensus, (b) a lack of uniformity in role socialization, and (c) a diversity in patterns of role — set interactions.

It may be concluded that faculty members assigned to clinical supervision perceived the university department of nursing as less structured than did faculty assigned to classroom instruction. Faculty assigned primarily to the classroom perceived the organization as offering more opportunity for autonomous decision making, tolerating more conflict, and offering greater and more equitable rewards to its members.

#### *Relationship Among the Independent Variables*

It was recognized that overlap may have existed among the independent variables. No attempt, however, was made to examine



correlations among the independent variables. A summary of the mean responses of faculty members on the climate scales by independent variables, presented in Table 3, indicated major differences in the groupings of the independent variables. None of the independent variables showed significant differences on the same set of climate dimensions.

The analysis of the data showed that some of the variables identified had a greater impact on perception of climate than did others. When faculty members were classified on the basis of rank there were significant differences in perception on six of the nine climate dimensions. There were significant differences on five dimensions on the variables of hierarchy, experience on present faculty, experience in nursing education, and assignment. Perception was affected by type of contract on four climate dimensions. Age of member and tenure each had an impact on only one climate dimension.

TABLE 3  
SUMMARIZATION OF SIGNIFICANT DIFFERENCES IN MEAN RESPONSES OF FACULTY MEMBERS  
ON THE CLIMATE SCALES BY INDEPENDENT VARIABLES

Independent Variables	Climate Dimensions								
	Structure	Responsibility	Reward	Risk	Warmth	Support	Standards	Conflict	Identity
Hierarchy			X		X	X		X	X
Rank	X	X	X			X		X	X
Tenure			X						
Experience on Present Faculty		X	X	X			X		X
Experience in Nursing Education		X	X			X	X		X
Age of Respondent							X		
Type of Contract	X		X			X			X
Assignment	X	X	X			X		X	

It is also noted that there were more significant differences on some climate dimensions than on others. Significant differences on the reward dimensions were noted on seven of the eight independent variables. There were five significant differences on the support and identity dimensions, four significant differences on the responsibility dimension, three significant differences on the structure, standards, and conflict dimension, and only one significant difference on the risk and warmth dimensions.

## GENERAL CONCLUSIONS

In determining the impact of group and organizational characteristics on the perception of organizational climate, the findings of the study permit some broad conclusions:

1. Within the parameters of the study, group and organizational characteristics did have an impact on perceptions of climate. When studied on the basis of group and organizational characteristics, statistically significant differences were identified in the responses on the climate dimensions.

2. The independent variables which related to the member's position in the organization had the greatest impact on perception of organizational climate. The greatest number of significant differences in perception were noted when faculty members were categorized on the basis of rank. This was followed by the length of experience on the present faculty, hierarchical level, total experience in nursing education, type of assignment, and type of contract. Perception was affected on only one dimension when the independent variable was tenure or age.

3. The impact of group and organizational characteristics was greater on some dimensions of climate than on others. There were twelve significant differences in group mean responses on the reward dimension; six significant differences in mean responses on the responsibility dimension; four significant differences of mean responses on the structure, support, and identity dimensions; three significant differences of mean responses on the risk dimension; and only one significant difference of mean responses on the warmth dimension.

## IMPLICATIONS

### *Implications for Theory*

Researchers have suggested that organizational climate theory would profit by research which would investigate group and organizational variables affecting climate (Forehand and Gilmer, 1964, p. 368). Various studies such as those by Herman et al. (1975), Pheysey, Payne and Pugh (1971), Gorman and Molloy (1972) have attempted such research. The present research sought to strengthen findings of previous research by using some of the same variables but in a different setting. A further objective of this research was to add to the findings by adding variables which had not been tested, such as the effect of assignment to clinical or classroom teaching on perception of climate. Primarily, the present study was significant in

its supports of the findings of other studies, which concluded that level or position in the organization affects perception of climate. The present study further examined the impact of group membership on perception. Pace (1968, p. 141) stated: "The study of subcultures and subenvironments is a significant and enriching counterpart to the study of total environments." By the study of "subcultures" (groupings) in Canadian university schools of nursing and by employing several groupings or independent variables which had not been studied previously, a broader understanding of climate in schools of nursing was gained which also added to the general knowledge of climate.

### *Implications for Practice*

"If men define situations as real, they are real in their consequences" (Merton, 1957, p. 421). Various studies have verified that perception of climate affects satisfaction and performance (Pritchard and Karasick, 1973; Kaczka and Kirk, 1968; Friedlander and Margulis, 1969; Costley, Downey and Blumberg, 1973; and Hand, Richards and Slocum, 1973). Because previous studies have shown a relationship between climate perceptions and attitudes and behaviour, knowledge of climate perceptions becomes highly relevant information to the organization's administration.

The findings and conclusions of the present study may be of particular interest to administrators of nursing faculties. Administrators may first inquire as to the reasons for differences in perception. Secondly, administrators may question how climate perception may be changed. In answer to the first question, Evans (1968, pp. 118-120) has discussed rather extensively the process of socializing members into a group. He suggested that climate perception is perpetuated from one generation to another in a group, and is not easily altered even by changes in leadership.

In the university schools of nursing, as in other organizations, the underlying factors which influence how perceptions are perpetuated would have to be altered. This might result in substantial changes in the organizational processes such as a change from unilateral decision making to participative decision making. It might further result in changes in group membership. In schools of nursing the administrators might consider having faculty members who are assigned primarily to clinical supervision assigned to some classroom instruction as well. It might also mean shortening the length of time at which individuals remain at the assistant professor rank, or offering teaching members of faculty some administrative responsibility.

### *Implications for Further Research*

This study examined the impact of selected independent variables on the faculty members' perceptions of organizational climate dimensions in six Canadian university schools of nursing. Several further research concerns related to this study could be pursued.

1. Eight independent variables were studied in relation to their impact on perception of climate. Other variables than those selected might have been used and could be used in further studies. Forehand and Gilmer (1964, p. 367) suggested the use of independent group variables such as group maturity, size of group, composition of group, and so on. Similarly, degree of professionalization of the group, or cosmopolitan versus local would add further to the factors affecting perception of climate. Since nursing faculties generally have a vast number of committees, committee structure might be useful in a study.
2. An attempt was made by faculty members to describe what they perceived to be reality. Further research, identifying both the actual and the preferred climate, similar to the study undertaken by Gorman and Molloy (1972), would be useful in determining member satisfaction. This would lead to an investigation of the outcome of various climates. Since there are new trends and new expectations in the work force, expectations may change rather rapidly.
3. This study focused on the perceptions of faculty members to the exclusion of others who would have perceptions about the organizational climate. Other groups like students or hospital personnel who associate with faculty and students and outsiders might add significantly to an understanding of the climate of schools of nursing. A future study might focus on the difference in perception of students and faculty.
4. It would be of interest to examine the perceptions of faculty members of other university departments with practicums to determine if the findings related to the assignment variable were unique to schools of nursing, or if there is similarity among other departments with practicums.

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## RESUME

**L'effet des caractéristiques organisationnelles et collectives sur la perception des professeurs quant au climat qui règne dans les écoles de sciences infirmières.**

Cette étude était axée sur l'impact des caractéristiques collectives et(ou) organisationnelles sur la perception du climat qui règne dans certaines écoles universitaires de sciences infirmières au Canada. Les variables indépendantes étaient la hiérarchie, le rang, la permanence, l'expérience, l'âge, le type de contrat et le type de fonctions; quant aux variables dépendantes, il faut citer le climat qui règne dans les structures, les responsabilités, les récompenses, les risques, l'ambiance chaleureuse, le soutien, les normes, les conflits et l'identité.

L'analyse des données a permis de tirer trois conclusions:

1. En se basant sur des caractéristiques collectives et organisationnelles, on a pu déterminer des différences statistiquement importantes dans les réponses sur les aspects relatifs au climat.

2. On a constaté que c'étaient les variables indépendantes qui avaient trait à la place du membre de la faculté dans l'organisation qui avaient la plus forte incidence sur la perception du climat organisationnel.

3. L'impact des caractéristiques collectives et organisationnelles se faisait davantage sentir sur certains aspects du climat que sur d'autres.

# SOURCES OF STRESS IN UNIVERSITY NURSING STUDENTS

by  
ELSIE MacMASTER  
Assistant Professor  
Faculty of Nursing  
University of Western Ontario

"It's a bad time of year for the students. This happens all the time." Too often, statements like these are offered in explanation of particularly stressful periods in the lives of university nursing students. Such statements are inadequate to justify stress that interferes with optimal functioning or to absolve faculty members of responsibility to minimize undue stress. A belief that at least some of the stress in the lives of students could be reduced prompted a study of the sources of stress in a particular baccalaureate nursing program.

## *PROBLEM*

Stress is an unusual phenomenon. A certain amount of stress is critical to motivate students to learn, while stress beyond the optimal level can lead to failure, unhappiness, and economic loss (Rothrock, 1974). One of the tasks of educators is to manipulate the environment so that stress is kept to a level that will promote development of the student.

The effects of stress upon a university nursing student can be diverse. In the academic setting, stress can interfere with the learning of concepts and with their retention and recall (Meyers and Martin, 1974). In the clinical setting, stress can impair the performance of a student nurse as she/he struggles with multiple tasks: as a learner trying to apply knowledge, as a person in a strange environment, and as an aspirant to membership on the health care team (Dye, 1974.)

Stress can cause unhappiness and retard the personal development of a student. University students can be considered generally to be in the late adolescent period of life. In order to make the transition into adulthood, they must establish an identity — in a peer group, in a sex role, in an occupation, and with an ideology (Sheehy, 1976). Enrollment in a university program often means that the student must leave the security and dependence of an established position in a family, peer group, high school, and community and enter a strange, new environment. Coping with university life and establishing an identity are formidable tasks to be accomplished concurrently.

Faculty members can help the university nursing student to develop as a person and as a professional by control of stress. If the sources of stress can be identified, undue stress can be eliminated. The resulting environment would provide the level of stress that is both manageable and challenging to students.

### *RELATED STUDIES*

A classic study was carried out by Fox and his associates (1965) as they gathered information about stress and satisfaction perceived by student nurses in diploma and collegiate programs and by female students in other university programs. The investigators wished to identify the types of stress peculiar to nursing education, who reacted to them and how, and how stress could be reduced.

Their findings revealed that the stressful and satisfying aspects of academic, social and personal life were common to all female adolescents attending a post-secondary educational institution. The stress involved coping with difficult courses, not knowing how to study, taking examinations, doing poorly in classwork, relationships with boyfriends and families, and problems of personal development. The clinical area was specific to the nursing students and, from this source, they experienced stress related to entering a new unit or experience, to problems with procedures, to clinical evaluation, and to the responsibilities involved in work assignments.

A Canadian study undertaken recently by Elfert (1976) at the University of British Columbia is patterned after the Fox study but is longitudinal rather than cross-sectional: the first class to enter the newly-revised nursing program is being followed. To date, the reported findings involve the first two years of the program. At first, students experienced stress from the adjustment to university life, family, friends, evaluation, and grades in courses. Later in the program, students experienced the greatest stress from practice in the clinical area.

An American study by Garrett, Manuel and Vincent (1976) focused only on the stressful experiences of students in a collegiate nursing program. Overall, clinical practice concerns were mentioned most frequently, but were outnumbered by academic concerns in the senior class. The single largest category of responses for all classes comprised the academic pressures related to examinations, assignments and homework.

In these studies, there was a large degree of consistency. A major source of stress for all nursing students at one time or another was clinical experience. For all groups of university students, the setting

created adjustment and academic pressures. The findings suggest that there is a body of stresses to which university nursing students are exposed.

Whether or not these investigators were successful in initiating actions to reduce stress is not recorded, but they all had such a goal and made recommendations for its achievement.

### *PURPOSE OF THE STUDY*

The purpose of the study described in this paper was to identify the sources of stress in students in a baccalaureate nursing program and to develop profiles of concerns for each class in order that faculty members may develop ways to reduce excessive stress.

### *METHODOLOGY*

For the purposes of the study, stress was defined in terms of Selye's description of distress: that is, "damaging or unpleasant stress" (Selye, 1974, p. 18). The setting was the Basic Degree Program in Nursing at the University of Western Ontario. At the time of the first data collection in Term 1, there were a total of 216 students enrolled in the program. Of this number, 170 (79%) participated in the study. By Term 2, the enrollment had dropped to 214 students of whom 158 (74%) participated in the data collection.

The students were given both a written and verbal description of the proposed study with specific explanation of the plans for use and disposal of the data. The students were asked to complete a form that was a modification of the critical incident technique developed by Flanagan (1954). The participants were presented with possible behavioral manifestations of stress and were asked to recall and report incidents from the previous term that they had perceived as stressful. They could report from one to three incidents and were cautioned not to identify themselves or any of the individuals or agencies involved in these incidents. Students indicated their willingness to participate in the study by completing the questionnaire.

Data were collected twice during the school year at the end of the first and second term. Both terms were followed by an examination period and the second term was followed by a synthesis clinical experience. All four classes were approached separately during class time or at the end of a nursing class period. In Term 1, 441 incidents were collected and in Term 2, 346.

The responses were analyzed and categorized independently by the investigator and the project advisor. Three major categories emerged: academic, clinical, and social-personal areas of student life. Profiles

of the sources of stress for each class during each of the two terms were developed and studied for differences among the classes at different times in the school year.

### *LIMITATIONS*

Certain limitations were recognized. The profile of each class was incomplete because the sources of satisfaction were not surveyed. The classes were not followed beyond the two school terms described. As students were asked to *recall* stressful incidents, memory may have distorted their perceptions. Data were not collected from other university students or from nursing faculty members so the subjectivity may decrease the validity of the findings. Time and circumstances forced a limited study.

### *FINDINGS*

The profiles of the sources of stress are illustrated in Tables 1 and 2.

*Year 1* In Term 1, the academic area was the greatest source of stress. Students were particularly concerned with examinations and, to a lesser degree, with specific assignments and the workload. They were apprehensive about their first set of university examinations because they did not know what to expect or how the teachers would grade the papers. They were overwhelmed by the amount of material to be studied in a limited time. Some found it difficult to concentrate on studies because they were anxious to go home for Christmas holidays. They had difficulty with their first nursing essay because the assignment represented a new experience. Students had written few essays in high school, had not written an essay for a long time, had never written such a long essay, and did not understand the parameters of plagiarism against which they had been cautioned upon penalty of failure. Their concerns about the workload arose from the simultaneous deadlines for examinations and assignments.

Their social-personal concerns involved mainly the adjustment to university life. They described leaving home and the feelings of anxiety upon the perceived enormity of the university, the need to meet new friends, and the difficulty in getting established with a roommate in residence. Their clinical concerns were minimal, as expected in view of their limited clinical experience. Most of the expressed concerns related to the apprehension about the first experience with patients in a hospital.

By Term 2, the Year 1 class perceived the greatest stress related to examinations and the fear of dismissal from the program. Concerns about examinations were the same as in Term 1 and some students

Table 1: Sources of Stress in Term 1

Sources of Stress	Frequency of Mention , by %			
	Year 1 N = 56	Year 2 N = 41	Year 3 N = 41	Year 4 N = 32
Academic				
Assignments	10.7	0.9	-	-
Course	2.7	-	1.0	11.4
Dismissal from program	2.7	-	-	-
Evaluation	2.0	1.9	4.0	1.1
Examinations	29.5	15.3	14.2	-
Faculty	2.0	-	2.0	43.2
Interpersonal relationships	-	-	-	-
Program	-	0.9	-	8.0
Studying	-	-	1.0	-
Workload	7.4	14.3	14.2	3.4
Clinical				
Conflicting philosophies of patient care	-	-	-	1.1
Evaluation	-	-	6.1	4.5
Faculty	-	2.9	14.2	1.1
Initial experiences	6.0	27.7	7.1	2.3
Interpersonal relationships	-	1.9	1.0	-
Nursing procedures	0.7	0.9	6.1	-
Patient assignment	1.3	10.5	2.0	-
Personal competence	-	1.9	2.0	2.3
Relationships with patients and families	-	-	-	1.1
Workload	-	1.9	-	-
Written assignment	-	6.7	-	-
Other	-	-	-	-
Social-Personal				
Conflict of personal and program demands	1.3	-	3.0	2.3
Extracurricular activities	-	0.9	1.0	-
Family	6.0	2.9	1.0	4.5
Family and friends	-	-	-	1.1
Friends	6.0	7.6	10.1	8.0
Future plans	0.7	-	-	1.1
Personal adjustment	14.1	-	-	-
Personal problems	6.7	0.9	4.0	3.4
Summer employment	-	-	-	-
Miscellaneous	-	-	1.0	-
Totals	100.0	100.0	100.0	100.0



Table 2: Sources of Stress in Term 2

Sources of Stress	Frequency of Mention by %			
	Year 1 N = 67	Year 2 N = 34	Year 3 N = 28	Year 4 N = 29
Academic				
Assignments	4.6	9.3	3.5	13.1
Course	2.6	-	-	1.6
Dismissal from program	10.5	2.7	-	-
Evaluation	4.6	2.7	1.7	4.9
Examinations	22.4	10.7	1.7	-
Faculty	0.7	1.3	3.5	4.9
Interpersonal relationships	-	1.3	-	-
Program	-	1.3	-	3.3
Studying	-	-	-	-
Workload	7.9	17.4	17.2	8.2
Clinical				
Conflicting philosophies of patient care	-	1.3	-	1.6
Evaluation	2.0	2.7	6.9	3.3
Faculty	3.3	1.3	19.0	-
Initial experience	1.3	4.0	3.5	3.3
Interpersonal relationships	-	1.3	-	-
Nursing procedures	3.9	1.3	1.7	-
Patient assignment	2.0	12.0	6.9	1.6
Personal competence	0.7	-	-	-
Relationships with patients and families	1.3	-	-	3.3
Workload	-	-	-	-
Written assignment	-	8.0	-	-
Other	0.7	-	1.7	-
Social-Personal				
Conflict of personal and program demands	1.3	1.3	1.7	-
Extracurricular activities	1.3	-	1.7	9.9
Family	4.6	1.3	6.9	6.6
Family and friends	-	-	-	-
Friends	13.8	5.4	5.2	11.5
Future plans	-	1.3	-	16.4
Personal adjustment	2.6	-	1.7	1.6
Personal problems	6.6	9.4	8.6	4.9
Summer employment	0.7	2.7	6.9	-
Miscellaneous	0.7	-	-	-
Totals	100.0	100.0	100.0	100.0

related possible failure to the final examinations to potential dismissal from school. Their social-personal concerns focused on relationships with friends, especially boyfriends. Again the clinical area accounted for a minimal amount of stress.

*Year 2* In Term 1, the Year 2 class perceived the clinical area as the source of greatest stress. Students were required to visit and care for prenatal families in the community and to care for patients in the "labour and delivery" and "maternal and newborn" areas of an obstetrical unit in hospital. The most frequently mentioned concern arose from their initial experiences in these areas. They were not sure how helpful they could be in the community and were apprehensive about meeting the families. The hospital caused anxiety because the students were not familiar with the setting, the ward routine, or the experience of labour, delivery and care of newborn infants. As well, many experienced stress in patient assignments to prenatal mothers whom they were to accompany during labour and delivery. Some students were called back from Christmas holidays or weekends at home and some were intercepted upon entrance to examination sessions to meet their patients in hospital. Conflicting demands caused great stress.

Students had academic concerns related particularly to examinations and workload. Their concerns focused on the number of examinations they had to write within one week and the difficulties in organization of their time to complete adequate studies. The workload created a problem because of the number of assignments and projects due at the same time. Their main social-personal concerns involved friends, and focused mainly on strained relationships with boyfriends and roommates.

In Term 2, the emphasis changed to the academic area. The major concerns were related to workload, examinations and assignments. The only change in the nature of the reports related to examinations. The students had found one biochemistry examination particularly stressful because the professor unexpectedly changed the format and the content to be examined.

The prenatal patient assignment continued to cause stress in Term 2. Social-personal sources of stress involved problems with friends and personal problems most of which related to illness of the students or problems with living accommodation.

*Year 3* In Term 1, the Year 3 class reported an almost equal number of concerns in the academic and clinical areas. Their academic concerns centred on examinations and the workload. Their comments about examinations emphasized the scheduling of two

examinations on the same day and particular concerns about the volume of information tested on the pharmacology examination and the "ambiguous" and "unrepresentative" nature of the nursing examination. Their major concern was with the workload as they reviewed their heavy schedule of classes, clinical practice and assignments. This concern seemed well-founded in view of their schedule of six mandatory courses and two full days per week in the clinical area.

The main clinical concern for this class related to faculty. Many students perceived some of teachers to be "threatening" and "unhelpful" in the clinical area. Other students reported stress related to their initial experiences on medical, surgical and pediatric units and to their difficulties or errors with nursing procedures.

The social-personal area was of least concern. Problems arose primarily from relationships with family and friends. Essentially, the complaint was that their work schedule was so heavy that they had no time to pursue other interests.

The clinical area took precedence in Term 2. Again, the most frequently mentioned incident related to faculty and the damaging effects of teacher behavior upon their clinical performance. As well, they still had many concerns about the workload because their schedule involved seventeen written assignments in Term 2.

*Year 4* Most concerns, by far, in the Year 4 class in Term 1 arose from relationships with faculty in the academic area, some having a perception of teachers as "hostile," "threatening" and "insensitive." Students were concerned to a lesser degree about their nursing course which they described as "disorganized," "boring," and "repetitive."

The major social-personal area of concern involved relationships with friends, especially boyfriends. Mention of clinical concerns was minimal.

In Term 2, the social-personal area provided the most stressful incidents. The major areas of concern were future plans, as the students attempted to find employment in a job-scarce world, and friends, especially their relationships with girlfriends this time.

In the academic area, they had some concerns about assignments and workload. There were varied problems with assignments from feelings of anger at the irrelevance of some assignments to the difficulty and relief of completing the last essay of their university career. Their clinical concerns again were minimal.

## CONCLUSIONS

In general, the profiles of the sources of stress were what might have been expected for university nursing students. The major concerns were in the academic and clinical areas. Their main concerns were in keeping with their phase of life, their place in the program and time of the year of each class.

The Year 1 class exhibited the concerns of students new to the university environment. They had some problems in adjustment to school and they had academic adjustments to make as well. There was instability and insecurity in their academic abilities, such that they feared failure, and in their still-developing relationships with peers.

It was in the Years 2 and 3 that the students felt the impact of a heavy academic workload and of entry into new and important areas of clinical practice. The Year 3 clinical concerns were of particular interest because they focused mainly on teacher behaviors. These behaviors undermined the students' self-confidence and resulted in reduced effectiveness in their clinical performance.

By comparison to the other classes, the Year 4 class seemed stable and mature. They perceived little stress from examinations, assignments and workload. Perhaps they had developed some effective study and work habits and had gained some confidence in their ability to cope with academic tasks. They scarcely had concerns at all in the clinical area, presumably because of the development of some self-confidence and clinical competence. Their social-personal concerns demonstrated the typical difficulties one encounters when there is commitment and relative permanence in relationships with friends and members of the opposite sex. As well, they demonstrated disengagement from the university experience and the stress of stepping into another phase of life.

For all classes, the academic concerns were typical of university students; the social-personal concerns were typical of young people as they move from adolescence into adulthood; and most of the clinical concerns were similar to those of other nursing students as reported in the literature.

The main recommendations for remedial action were:

1. orientation of both faculty and students to the student services available. These include assessment of reading and study skills and plans for improvement, development of writing skills, and assistance in communication skills and relationship development.

2. encouragement of faculty to review both academic and clinical assignments designated as stressful to determine the possibilities for modification or substitution.

3. reminder to faculty to clarify and specify expectations for all assignments.

4. provision of specific, thorough orientation sessions for clinical experiences.

5. provision for further study into effects of teacher behavior upon student clinical performance and development of programs to assist teachers to assess their teaching effectiveness and make appropriate changes.

The findings of this study that varied from those of other studies served as a reminder that the study was specific to one group of students at particular points in time. The findings cannot be generalized. However, there is enough resemblance of the findings to those of other studies to cause speculation about the existence of types of stress common to all university nursing students. Identification of this group is an area that warrants further study.

A study into the sources of stress in university nursing students has value. After measures are taken to reduce stress, there will be greater freedom and opportunity for the student to build an identity and develop her potential for the future.

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## RESUME

### **Origine du stress chez les étudiants universitaires en Sciences Infirmières**

La présente étude a été entreprise pour déterminer les origines du stress chez les étudiants inscrits à un programme donné en sciences infirmières afin de trouver des moyens de diminuer ce stress. Les étudiants des quatre cours du programme de premier cycle de l'université de Western Ontario se sont rencontrés à la fin du premier et du second semestre de l'année universitaire. Ils ont utilisé la technique de l'incident critique pour relater de un à trois incidents qu'ils avaient jugés stressants au semestre précédent. L'analyse des données a montré trois principaux domaines de préoccupations: universitaire, clinique et socio-personnel. On a élaboré un profil des origines du stress pour chaque classe et chaque semestre. Ces profils étaient représentatifs de la phase que traversaient les étudiants et de leur place dans le système éducatif. Des recommandations particulières ont été formulées en ce qui concerne la révision du programme, l'étude du comportement des enseignants et les changements dans les travaux des étudiants afin de réduire le stress dans le cadre de ce programme.



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