FAMILY CENTERED COMMUNITY HEALTH NURSING AND THE BETTY NEUMAN SYSTEMS MODEL

Eugenia Logan Story . Margaret M. Ross

Although the relationship of the use of models to the development of professional accountability is becoming increasingly evident in the nursing literature and although we are learning more about the relevance of certain models to certain approaches to nursing and to certain clinical settings, the idea of theoretical pluralism as a basis of curricular development and implementation is remarkably absent from the nursing literature. According to Roberts and Yaros (1984), a calendar review of seventeen baccalaureate programs in nursing in Canada reveals seven programs that have discernible models: four use adaptation and three use systems, self care and developmental theory respectively. There were no calendars reflecting the use of theoretical pluralism for direction in program design.

In 1984, the School of Nursing at the University of Ottawa became committed to the notion of theoretical pluralism as a major underpinning for curricular development and implementation. Pluralism provides a global perspective and requires the acceptance of a paradigm that reflects the selection and use of multiple theories for nursing practice, in accordance with the demands of a situation (McGee, 1984). It assumes a variety of situations and a variety of approaches. Given the increasing complexity of nursing practice in our ever changing society, and given the fact that the setting in part determines the nature of nursing in that setting, it does not seem reasonable to assume that one conceptual framework is adequate to prepare students for beginning professional practice in a variety of situations. Dickoff and James (1978), in a paper entitled "New Views of Traditional Roles", discussed the nature of theoretical pluralism. Acknowledging the existence of a multiplicity of conceptions regarded as nursing theory, they recommended a purposeful theoretical pluralism rather than a search for unity.

Table 1 illustrates the content focus and model selected for each of the four years of our generic baccalaureate program:

These models were selected after an analysis of the congruence of the essential units: person, environment, health, and nursing (Fawcett, 1978)

Eugenia Logan Story, R.N., M.S.N., is a Nurse Consultant and Margaret M. Ross, R.N., is Assistant Professor, School of Nursing, University of Ottawa, Ontario.

Table 1

Content and Model of Baccalaureate Program

	Content	Model
Year I	Health of individuals	Roy
Year II	Health of expanding and child rearing families	Roy
Year III	Biophysical and psychosocial health and illness of individuals and families	Roy Orem Neuman
Year IV	Health and illness of individuals, groups and the community	Neuman

with the School's philosophy and with the overall intent and specific purposes of the various years.

This paper examines the introduction of the Neuman Systems Model to students at the Third Year level whose studies focus on the family as the unit of care in community based settings and on the secondary level of prevention. The family unit, as a natural and cost effective resource for the health and well-being of its members, and therefore as a primary focus of practice for community health nursing, has long been a concern of community health nursing practice (Clements, Eigsti, & McGuire, 1981; National Organization for Public Health Nursing, 1932; Spradley, 1985; Stanhope & Lancaster, 1984; Tinkham & Voorkies, 1984). However, the concept of "family" is not an easy one to learn about or work with. Both the tradition in nursing and the knowledge and skills that are basic to nursing do not easily, or readily, lead to the elaboration and specification of the knowledge, attitudes, and skills that are needed to nurse families. The concept of the family as the client may be unfamiliar to those who have concentrated on the care of an individual member. We are concerned with the care of the family as a whole, as well as its individual members, in the course of various events of family life.

Selection of the Model

The selection of the Neuman Systems Model for community health nursing in the third year was the result of an exploration of the model (Fig.1)

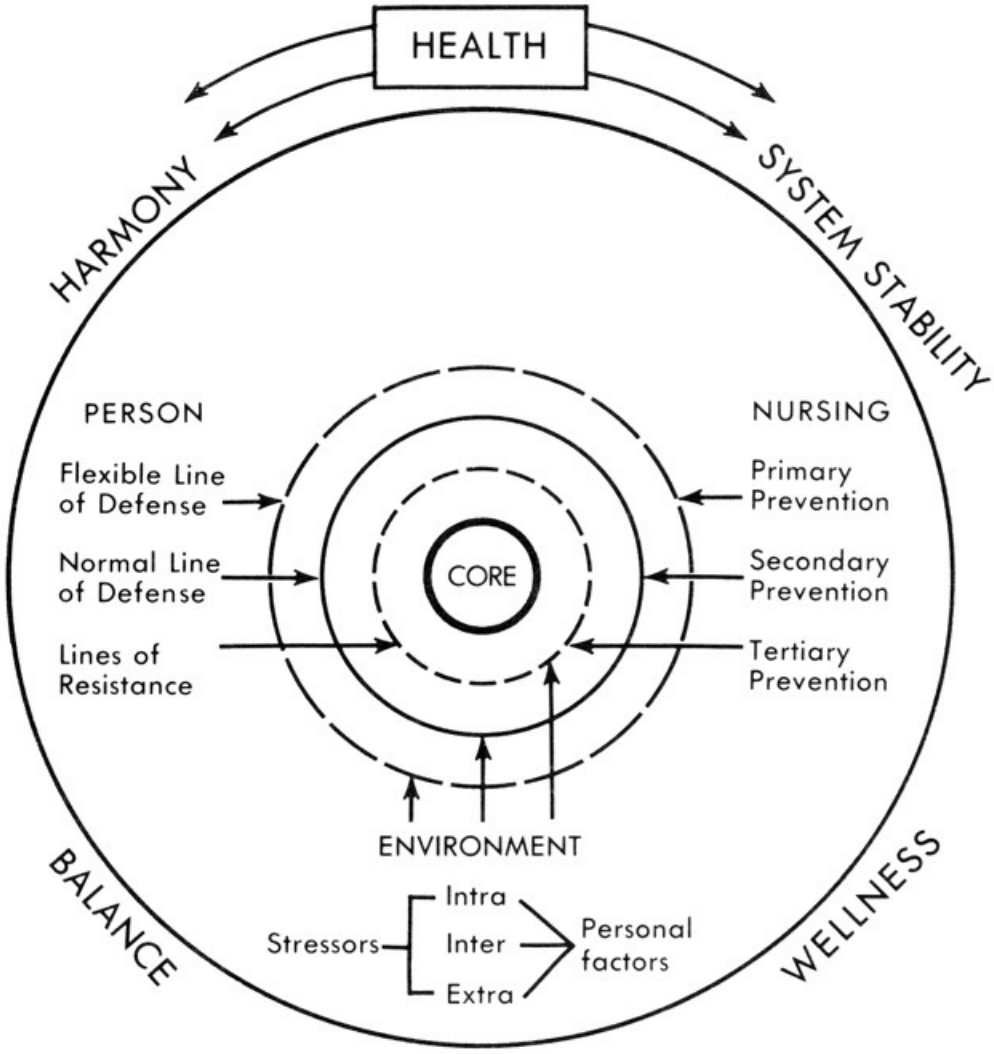

Figure 1: Elements of the Betty Neuman Systems Model

and Reed's adaptation of the model to families (Figure 2), of its congruence with our school's philosophy of nursing, of the author's personal experience with the model in practice and of the purposes of the course. Several characteristics of the Neuman Systems Model influenced our decision to use it in this instance. The model provides guidelines for the coordination of the various levels of intervention; primary, secondary, and tertiary. As well, the circuitous nature of the prevention-intervention concept in the model facilitates its use in a variety of settings and at any point in the client's life span (Bourbonnais & Ross, 1985). Because students would also be learning to nurse individuals in hospital-based settings, it seemed important to select a model with special applicability to the family unit. Reed's adaptation of the model serves us well in this respect (Reed, 1982). The versatility of the Neuman Model appealed to us and we felt that it would augur well for student learning.

There appears to be congruency between the basic elements of the model and our faculty's philosophy of nursing. The model's focus on client

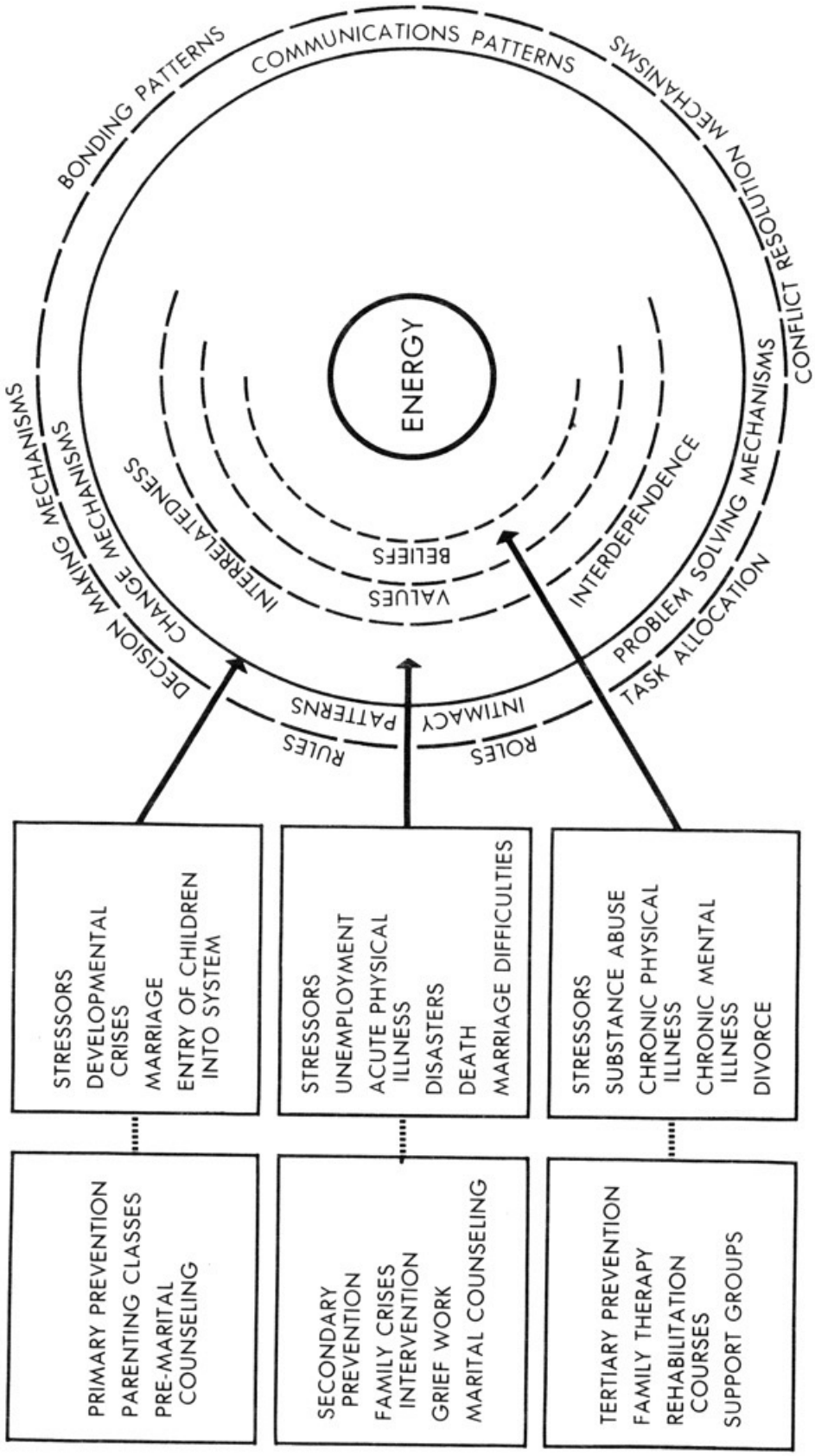

Figure 2: The Neuman Model:
A Systems Approach to Viewing Family Problems

perception emphasizes the client as a responsible and full collaborator in the nursing process. The development of the intervention model would be helpful to us in our own exploration of strategies of caring.

One of the authors tested the model in practice with both the individual and the family as client. This experience provided us with a clearer appreciation of the concepts and with an increased esteem for the approach to practice dictated by the model (Ross & Bourbonnais, 1985).

In view of the School's commitment to theoretical pluralism and bearing in mind the goals of community health nursing, it became evident that a framework to guide students in assisting families to attain optimal wellness was needed. The Neuman Model combines the large number of variables inherent in the care of families into one explanatory model, and it reveals the relationships among the categories of major variables.

Course Development and Implementation

The major emphasis in community health nursing at the Third Year level is on the effects of the illness of an individual family member on the family unit. Third-year students have a background in basic family theory. The second-year course, using Roy's model, emphasizes the normal aspects of childbearing and childrearing, and each student explores the family in relation to concepts of health promotion and with a view to the establishment of a nurse/client relationship. Consequently, in Third Year, the community health nursing course builds on knowledge and skills acquired through previous learning experiences.

Objectives

The overall intent is to assist students to learn to nurse the family that has an ill member at home in a manner consistent with the Neuman Systems Model. The major goal for students is to assist families to attain, regain, or maintain an optimal level of stability or wellness.

Specific objectives for the students include the:

1. Collection and evaluation of data that contribute to the on-going assessment of the family and its stability.
2. Analysis of the various intra-, inter- and extra-family stressors arising from the illness of a family member.
3. Identification of family responses to these stressors.
4. Application of strategies used by community health nurses that are directed toward maintaining and strengthening the family's lines of defense as well as decreasing the effect of stressors encountered.

Clinical content

There are three sources of families for students to nurse: the out-patient clinics of a teaching hospital where individuals are receiving follow-up treatment; the in-patient unit where students are learning biophysical nursing; and physicians' offices. Students make a series of home visits to selected client families. They assess the functional status of the family as a whole, its health practices and its ability to meet the health needs of its members. They identify family stressors and determine the level of actual or potential family disruption. In collaboration with the family, students develop strategies to reduce the impact of the stressors and/or strengthen the efficacy of family functioning, in a manner consistent with the Neuman Systems Model.

The following characteristics of the elements of the model are unifying themes for any client situation students are working with:

Goal: the ultimate terminus of their nursing is stability of the family.
Patiency: their focus of practice lies in the functional and structural dimensions of the family, i.e., the family's lines of defense and resistance.
Agency: through collaboration with the family in their home students strive to promote, maintain, or restore the stability of the family.
Context: within the home setting, a therapeutic relationship based on clarifying perceptions of each other is established.
Protocol: family stability is primarily accomplished through secondary levels of prevention, but also includes primary and tertiary levels of prevention and their related activities.
Dynamics: the source of power for the students' nursing activity rests in the advocacy role; interceding, supporting and providing for needs and facilitating family self help.

Course content

The community health nursing content is divided into three major units and covered during weekly periods of one and a half hours throughout the academic year.

Unit I

This unit begins with an introduction to the broad concepts that are basic to the Neuman Model (Neuman, 1982). Because the model will be reflected throughout classroom and clinical experiences, students examine it in detail. Reed's adaptation of the model (1982), as a client system and as a family theory, provides the framework for analysis of the primary model structure (Figure 1).

The inner circle or the "core" represents the energy stores that make a family a family. It includes those traits that are inherent in human beings as a species, such as the need for affiliation with a group that offers protection, security and nurturing within its boundaries. In a family, the concept of the "whole being greater than its parts" is important. The combined energy of the individual family members cannot be separated into the original energy components. The "lines of resistance" comprise concepts that protect both the family as a system and the individual members. Reed identifies the concepts of interrelatedness, interdependence, values and beliefs as the internal factors comprising a family's lines of resistance. The "normal line of defense" contains the variables that are found within the structural concepts of family theory. These variables provide a framework for the family system and include communication patterns, problem solving mechanisms, mechanisms for meeting needs for intimacy and affection and ways of dealing with loss or change. The "flexible line of defense" can be thought of as containing variables that are found in the functional concepts of family theory. These variables represent the dynamic state of the family, as it manages the on-going encounters with stressors, and include conflict resolving mechanisms, family bonding patterns, decision-making, task allotment and classification of family roles and rules (Janosik & Miller, 1980).

Unit II

At this point, the model provides a basis for examining family health (stability) and illness (instability). The concept of a family as a "client", health related reasons for viewing the family as a client and how this approach will influence the work of nursing are dealt with. Students learn about the impact of illness on families and ways that families cope with the illness of one of its members. According to the model, family stressors include environmental factors that cause a reaction within the family system. Stressors that are intrafamily, interfamily, or extrafamily in nature can be subdivided into three groups: primary, secondary, or tertiary, depending upon the type of intervention needed. These stressors identify the area for possible interventions as well as the entry point into the health care system for the client and the nurse. Primary prevention area stressors are forces that are potentially disruptive to the normal structure and function of the family. The major stressors affecting stability are in both acute and chronic physical illness, or secondary and tertiary prevention. The effects of the role conflict and changes in task allotment and role allocation that results from the impact of stressors on the family's flexible line of defense, and the resulting impact on the communication and problem-solving patterns in the family's normal line of defense leave the family's lines of resistance at risk; they are interrelated and interdependent. Students examine family disruptions and potential resolutions for the problems.

Unit III

This unit focuses on assisting the family to strengthen its lines of resistance and decrease the impact of the stressors brought about by the illness of one of its members. The Neuman assessment/intervention tool, modified by faculty for use with the client family, serves as a guideline for students. They learn to gather data that reflect the interpretations of the family and their own perceptions of the situation at hand. They learn to formulate a nursing diagnosis and in collaboration with the family, decide upon an appropriate form of intervention. Specific nursing strategies to improve the stability of families are a major thrust for this unit, most particularly those that are specific to the family structural and functional components, as identified in the Neuman model. Some of these include creative problem-solving, values clarification and time management, and relate to the variables found in the primary model.

Teaching strategies

A case study format directs student learning in the classroom. It provides students with a simulated experiential basis with which to effect a cognitive shift from nursing individuals as their clients to nursing families as the unit of care. It provides all students with the same stimulus, or client situation, with which to identify data relevant to the client's perception, a crucial aspect of the Neuman model. As well, it provides students with an opportunity to test their decision-making with respect to planning and implementing of care.

Clinical conferences provide an opportunity for students to share their client family experiences and to learn from the experiences of their peers. Attitudes, feelings and values related to nursing, to families and to learning a model surface during these conferences. They are held on a semi-weekly basis.

There are three means of asssessing student learning. Clinical papers specify students' objectives for home visiting, describe the nursing of their client and summarize the outcomes of their visits to the family. Their participation in clinical conferences is also evaluated and they write examinations.

Learning Outcomes

An analysis of evaluation data revealed the following indicators of student learning during this experience.

Data gathering

Students developed a heightened sensitivity to the client as the prime source of data for clinical decision-making. Increasingly, their focus of

practice became the family unit rather than the individual members of the family. They learned to gather data of a family nature and developed new strategies for acquiring them. For example, several students asked the children of their client families to communicate the impact of illness by means of drawings.

Focus of assessment

There were three dimensions of assessment evident in the students' data. They revealed a more deliberative focus on clarifying the meaning of the situation to their client family. As well, they sought to clarify discrepancies between the client's perceptions and their own perceptions of the situation. One student revealed her valuing of client perception by writing, "This thought and principle, so obvious and yet so overlooked, will be helpful to me in my nursing career."

Students appeared to assess the relationships within families according to the ways they communicated and interacted with each other. They looked for strengths within the family and viewed flexibility and adaptability as important indicators of family strengths. Through an exploration of health practices, they became more aware of the values and beliefs that underlie family health behaviour. The impact of culture as an underpinning of this behaviour became evident through interaction with client families from various cultural backgrounds.

Students learned about the impact of illness within the family and observed changes in role allocation and functions that resulted from the new stressors with the family. They appeared to be struck by reports of loneliness within the family as a result of the changes brought about by the illness.

Intervention

Students' data revealed interventions at the three levels of prevention. At the primary level of prevention, they sought to assist the client family to strengthen its flexible line of defense, which was being bombarded by the stressors associated with the illness of a family member. They also attempted to prevent their family's encounter with additional stressors. Health education strategies, such as providing anticipatory guidance about the illness and its possible impact on family life, formed the basis for students' interventions at this level of prevention.

At the secondary level of prevention, students sought to assist their client family to strengthen its normal line of defense and to decrease the strength of the stressor. They did this by assisting families to cope more effectively with interruptions in communication and problem-solving mechanisms and with

interruptions in communication and problem-solving mechanisms and with ways of dealing with loss and change. To this end, they developed strategies for increasing all members of the family's awareness of the meaning of the situation for each other. The judicious use of space and seating arrangements, the choice of meeting place, the method of questioning, etc. were viewed as factors contributing to an ambiance conducive to sharing and disclosure.

At the third level of prevention, students sought to assist their client families to strengthen the lines of resistance. This involved helping the family to reorganize its lifestyle to accommodate the limitations imposed by the illness of the family member. Counselling was the primary strategy to assist families to meet the objective of improved family functioning or increased family stability.

Home visiting

A major aspect of this experience was the change in context of the nurse-client relationship. Students learned about being a guest in the client's home and about the influence of this factor on the nature of their interactions. They identified a power ratio, the reverse of that existing within the hospital context, as contributing, in part, to their accountability to the particular situation. Negotiation and collaboration with their client in establishing goals for intervention became increasingly evident in their approach to the family. This reinforces the Model's emphasis on clarification of perception as a precursor to any nursing intervention. The termination of their relationship with their client family proved difficult for some students because of the close nature of the relationship that had developed. This generated an analysis of the nature of professional relationships, as compared with other kinds of relationships.

Use of resources

Students added to their repertoire of skills by learning how and when to refer clients to other health professionals. A clearer appreciation of the boundaries of nursing and of the relationship of nursing to other health professions evolved from this interaction. As well, they greatly increased their knowledge of and ability to use community services related to health promotion and health care provision. An interdependence with the larger health care system strengthened the students' view of nursing as an open system in which there is continuous flow of input and process. They were better able to articulate the essence of nursing, or its domain of practice.

Conclusion

This paper examines the use of the Betty Neuman Systems Model for the development and implementation of a baccalaureate level clinical learning experience that is designed to assist students to learn to nurse the family that has an ill member in the home. Within the context of theoretical pluralism, students had previously studied and worked with other conceptual models of nursing, specifically Roy's (1984) adaptation model and Orem's (1985) model of self care. Their knowledge of and experience with the use of models for learning to nurse provided a grounding for the introduction of a new model and facilitated their adaptation to its use in practice. Similarly, students came to the experience with a background in family theory that facilitated the process of learning to nurse the family as the unit of care. The Neuman Systems Model proved useful to students as a linkage between theory and family nursing practice. It provided students with an organizational framework to collect and analyze data systematically as well as to provide nursing care which was family-centered in nature. This new clinical learning experience allowed students to build upon and expand concepts and ideas of nursing which had previously been learned and which will continue to be developed as they move on throughout their studies.

REFERENCES

Bourbonnais, F.F., & Ross, M.M. (1985). The Neuman Systems Model in nursing education: Course development and implementation. *Journal of Advanced Nursing*. 117-123.

Clements, S.A., Eigsti, D.G., & McGuire, S.L. (1981). *Comprehensive family and community health nursing*. New York: McGraw-Hill, pp. 138-139.

Dickoff, J., & James, P. (1978). *New view of traditional roles: Theoretic pluralism and matrix of models.* Paper presented at Nurse Educator Conference, New York.

Fawcett, J. (1978). Relationship between theory and research: A double helix. *Advances in Nursing Science, 1,* 49-62.

Janosik, E., & Miller, J.R. (1980). Assessment of family function. In J.R. Miller & E. Janosik (Eds.), *Family focused care*. New York: McGraw Hill.

McGee, M. (1984). Presentation at a faculty workshop. School of Nursing, University of Ottawa.

National Organization of Public Health Nursing. (1932). *Principles and practice in public nursing*. New York: Macmillan.

Neuman, B. (1982). *The Neuman Systems Model: Application to nursing education and practice.* Connecticut: Appleton-Century-Crofts.

Orem, D. (1985). *Nursing: Concepts of pactice.* Toronto: McGraw Hill.

Reed, K. (1982). The Neuman system: A basis for family psychosocial assessment and intervention. In B. Neuman (Ed.), *The Neuman Systems Model.* Connecticut: Appleton-Century-Crofts.

Roberts, C.S., & Yaros, P.S. (1984). Theoretical pluralism and curriculum design. In M. McGee (Ed.), *Theoretical pluralism in nursing science.* Ottawa: University of Ottawa Press.

Ross, M., & Bourbonnais, F. (1985). The Betty Neuman Systems Model: A case study approach. *Journal of Advanced Nursing,* 199-207.

Roy, Sr. Callista. (1984). *Introduction to nursing: An adaptation model.* Toronto: Prentice Hall.

Spradley, B.W. (1985). *Community health nursing: Concepts and practice.* Boston: Little Brown and Co.

Stanhope, M., & Lancaster, J. (1984). *Community health nursing: Process and practice for promoting health.* Toronto: Mosby, pp. 330-332.

Tinkham, C.W., & Voorkies, E.F. (1984). *Community health nursing: Evolution and process.* New York: Appleton-Century-Crofts.

RÉSUMÉ

Les soins infirmiers communautaires axés sur la famille et le modèle des systèmes de Betty Neuman

Le document examine l'utilisation du modèle des systèmes de Betty Neuman dans l'élaboration et la mise sur pied d'un cours de sciences infirmières du niveau du baccalauréat, portant sur la santé communautaire et conçu pour aider les étudiants à axer les soins sur la famille plutôt que sur l'individu. Dans le cadre d'un programme axé sur un pluralisme théorique, les étudiants ont déjà examiné et appliqué d'autres modèles conceptuels qui ont servi de base à l'introduction d'un nouveau modèle. Le modèle de Neuman s'est révélé utile dans le rapprochement de la théorie familiale et de l'exercice des sciences infirmières chez les étudiants appliquant leur connaissance de la théorie de la famille au modèle en tant qu'outil d'amélioration de la santé des familles clientes.

The authors would like to acknowledge the feedback and encouragement offered by Betty Neuman during the preparation of this manuscript.