The Prince Edward Island Conceptual Model for Nursing: A Nursing Perspective of Primary Health Care

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The philosophy of primary health care (PHC) recognizes that health is a product of individual, social, economic, and political factors and that people have a right and a duty, individually and collectively, to participate in the course of their own health. The majority of nursing models cast the client in a dependent role and do not conceptualize health in a social, economic, and political context. The Prince Edward Island Conceptual Model for Nursing is congruent with the international move towards PHC. It guides the nurse in practising in the social and political environment in which nursing and health care take place. This model features a nurse/client partnership, the goal being to encourage clients to act on their own behalf. The conceptualization of the environment as the collective influence of the determinants of health gives both nurse and client a prominent position in the sociopolitical arena of health and health care.
Primary health care (PHC) continues to be proposed as the cornerstone of health-care systems as we enter the 21st century (World Health Organization [WHO], 1998). In 1977, World Health Organization (WHO) member states declared that economic and social factors had to be addressed in the interests of global health. PHC was proposed as a strategy for the achievement of health for all (WHO, 1978). Landmark documents such as the Ottawa Charter (1986) and Achieving Health for All (1986) support PHC principles and philosophy. The decision to adopt PHC implies a need for a new approach to health care, one based on broad definitions of health and focused on the idea of partnerships among clients, health-care providers, and communities. PHC is defined as:

...essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford... at every stage of their development in the spirit of self-reliance and self-determination... It is the first level of contact of individuals, the family, and the community with the national health system, bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process. (WHO, 1978, pp. 3-4)

PHC is both a philosophy and a delivery method of care. As a philosophy, it acknowledges that health is a product of individual, social, economic, and political factors. A system founded on this philosophy supports a social framework built around the ability of individuals, families, groups, and communities to control their own health. As a delivery method, PHC implies a commitment to essential health care (preventive, promotive, curative, rehabilitative, supportive) and equitable distribution of care to all populations, with optimal individual and community involvement (Kekki, 1990; WHO, 1978, 1998).

Nurse theorists have alluded to the importance of PHC but have so far failed to conceptualize a nursing model based on it (Meleis, 1990). The majority of nursing models focus on care of the ill client, with the client cast in a dependent role (Hughes, 2000). Furthermore, most nursing theories do not conceptualize health in a social, economic, and political context.

All nurse theorists address person, health, environment, and nursing, the four metaparadigm concepts of nursing, in ways that reveal the beliefs underlying their specific theory. The Prince Edward Island Conceptual Model for Nursing redefines these four concepts from a PHC perspective. The PEI model evolved from a need to provide
students with guidelines for nursing practice based on PHC. It was a response to new conceptualizations of health, changes in health-care delivery, and demands by consumers for a voice in their own health care.

We will describe the four metaparadigm concepts from the perspective of the PEI model. We will include a discussion of PHC principles and the implications of this approach for nursing practice, research, and education. The 16 assumptions underlying the PEI model represent our value statements about person, health, environment, and nursing and the relevance of PHC principles (Table 1). The assumptions are basic truths, accepted at face value and providing the basis for theoretical reasoning.

Person

In the PEI model the concept of person can mean individual, family, group, or community.

Individual

Person as individual is a unique human being who has both shared and unique characteristics but who ultimately has unique needs. Person as individual is a complex, holistic being, a biological, psychological, sociological, cultural, spiritual, and developmental composite. Person as individual functions within a system of beliefs and values and consequently ascribes unique meanings to life experiences.

Family

Person as family is two or more individuals bound together over time through mutual consent and/or birth, adoption, or placement. The family’s structural, developmental, and functional dimensions (Wright & Leahey, 1994) describe the composition, developmental stage, internal and external relationships, and activities of family members.

Group

Person as group is a collection of two or more interacting individuals with a common purpose and a common goal.

Community

Person as community is all individuals who reside in a particular geopolitical entity (city or town) or who share some characteristic (e.g.,
religion, age, culture, occupation). The essence of any community is its people. The dimensions of a community include: communications, economics, recreation, education, safety, transportation, politics, and health and social services (Anderson & McFarlane, 1996). A community may be as simple as a few families living in close proximity or as complex as the world community with its highly organized institutions.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Assumptions of the Prince Edward Island Conceptual Model of Nursing</th>
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<tbody>
<tr>
<td>1.</td>
<td>Clients have the potential to become active participants in problem-solving on behalf of themselves or others.</td>
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<td>2.</td>
<td>Clients have the right to be informed, to essential health care, to independent choice, to participate actively in decision-making and problem-solving, to privacy, and to make choices concerning the use of appropriate technology.</td>
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<td>3.</td>
<td>Clients are partners in their own health care.</td>
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<td>4.</td>
<td>Health incorporates both wellness and illness.</td>
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<td>5.</td>
<td>Wellness promotion and illness prevention are the essence of nursing practice.</td>
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<td>6.</td>
<td>Wellness promotion is relevant regardless of the current state of health.</td>
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<td>7.</td>
<td>Health is a political process.</td>
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<td>8.</td>
<td>Environment is a source of support as well as stress.</td>
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<td>9.</td>
<td>Environment may positively or negatively affect health.</td>
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<td>10.</td>
<td>A supportive environment promotes wellness and prevents illness.</td>
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<td>11.</td>
<td>Nursing can be practised according to the principles of PHC in any setting.</td>
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<td>12.</td>
<td>The principles of PHC guide the nursing process and the roles undertaken by the nurse.</td>
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<td>13.</td>
<td>Wellness is promoted through a collaborative process and/or a partnership between nurses and others.</td>
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<td>14.</td>
<td>Nursing practice is based on a caring philosophy.</td>
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<td>15.</td>
<td>The five principles of PHC are applicable in any given health situation, but all may not receive the same emphasis.</td>
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<td>16.</td>
<td>PHC is the most effective means of achieving wellness for all persons.</td>
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Health

Health is conceptualized as a dynamic process incorporating both wellness and illness and influenced by political, economic, social, and biological factors. In the PEI model these factors are the determinants of health. The extent to which they exist in a client’s life determines his/her level of health. Wellness and illness are understood to be unique, sometimes co-existing, facets of health. The overlap between the two represents the conceptual view that illness may exist in wellness, and vice versa. Wellness and illness are subjective concepts, influenced by: perceptions of health; health beliefs; the value placed on health; health practices; and the social, economic, and political context of health.

Wellness

Wellness is defined as a resource for everyday life, not just the object of living. It is the extent to which one is able to realize aspirations, satisfy needs, and change or adapt to one’s environment (WHO, Health and Welfare Canada, & Canadian Public Health Association, 1986). It has biopsychological, political, economic, and social components.

Illness

Illness is defined as one’s response to disease, loss, or dysfunction or to one’s political, economic, and social circumstances. Like wellness, it has biopsychological, political, economic, and social components.

The extent to which the determinants of health are or are not in place will significantly influence the level of health or illness of the individual, family, group, or community. For example, an individual with a social support system, a job, and an education will experience more wellness — have a greater ability to realize aspirations, satisfy needs, and change or adapt to the environment — than a person without a social network, employment, or education.

Environment

Environment is defined as the context, both internal and external, in which one lives, works, plays, and learns (Gottlieb & Rowat, 1987; Haglund, 1997). The PEI model focuses on the sociopolitical factors that affect the health of individuals, families, groups, or communities. This perspective has led to a conceptualization of the environment as the collective influence of the determinants of health. In the PEI model these
determinants are: income, social status, education, social support networks, employment and working conditions, physical environment, biopsychological endowment and genetics, personal health practices and coping, early childhood development, and health services (Advisory Committee on Population Health [ACPH], 1994).

Income, social status, and education have been classified as the socioeconomic determinants of health (Reutter, 2000). Longitudinal population studies have found clear indications of increased mortality and morbidity (chronic illness, low birth weight, higher crime rates, higher rates of smoking, lower rates of exercise, increased prevalence of dental caries) among people in lower socioeconomic classes (Warren, 1994; Wilkinson, 1996). Lack of access to a fair share of a country’s resources is a major cause of illness and mortality (Wilkinson). A socially just society seeks to reduce class inequities and thereby improve population health.

Income affects one’s ability to eat nutritious food, dress warmly, and secure adequate shelter. It indirectly influences health in terms of stress, self-esteem, and life choices (Reutter, 2000). Education provides the knowledge required to make positive choices and thus maintain or restore wellness. It enhances one’s ability to resolve problems and mobilize resources (Warren, 1994). Educated consumers are better able to protect their own health, help others, create healthful environments, advocate for healthful living and working conditions, and secure employment.

Research indicates that social support influences health by cushioning the impact of stressors. Social support networks provide a sense of predictability, stability, and acceptance (Stewart, 2000). Mutual aid and support, a central theme in health-promotion philosophy, is manifest in the self-help group (Stewart).

Employment is an important determinant of health. Mortality rates have been found to be 40 to 50% higher among the jobless (Wescott, Svensson, & Zollner, 1985). Unemployment, or the threat thereof, can result in physiological and psychological distress. Poor working conditions, such as exposure to toxins, extremely physically demanding labour, lack of control in the workplace, and poor working relationships can also contribute to diminished health.

The physical environment includes one’s immediate and extended environment — home, school, workplace, community, stratosphere.
Elements of the physical environment affect the health and development of individuals, families, and communities. In Poland, for example, improved population health as a result of economic growth was followed by a decline as industrial development brought air, water, and soil pollution (Hertzman, Frank, & Evans, 1990). WHO (1998) reports that pollution leads to 3 million premature deaths each year.

Biopsychological endowment and genetics are determinants of health. Mutations in the genetic code of cells increase the potential for inherited disease such as cancer and heart disease. The exact expression of the inherited disease is determined by social and environmental factors (Mustard & Frank, 1991). The science of psychoneuroimmunology attempts to explain the biological, psychological, social, and environmental interrelationships that affect health, human behaviour, and physical development.

Empirical research and anecdotal reports show a relationship between personal health practices and health outcomes. Personal health measures such as exercise, proper nutrition, positive relationships, and stress management contribute to a sense of energy, vitality, and fulfillment (Pender, 1996). Coping is the process of regulating emotions and behaviours and managing one's environment (Pender). It can be used to adapt to or change one's environment in order to achieve a state of wellness. Negative methods of coping, such as substance abuse or other high-risk habits, increase the risk for injury and illness (Lazarus & Folkman, 1984).

Early childhood experiences can have a permanent effect on physical, emotional, and social health. At birth, the parts of the brain that control emotional and social behaviour, as well as thinking and remembering, are significantly underdeveloped. The neurons and the connections between them develop through warm and supportive relationships, particularly those with parents (McCain & Mustard, 1999). Such relationships also contribute to the development of trust, self-expression, self-esteem, and empathy (Premier’s Council on Health Strategy, 1991).

The final determinant of health is essential health services. Currently, health services are focused on curing disease and providing medical care. While medical interventions can clearly benefit individual clients, evidence suggests that they do not result in a corresponding improvement in population health (Mustard & Frank, 1991). Thus resources should be allocated to those promotive and preventive services that address social and environmental health.
Nursing

In the PEI model the goal of nursing is to promote wellness and prevent illness. Nursing practice is influenced by the five principles of PHC: accessibility, public participation, appropriate technology, wellness promotion and illness prevention, and intersectoral collaboration.

Accessibility

Accessibility is the geographic, cultural, financial, and functional availability of essential health services to people where they live, work, and play. Geographic accessibility means that general services are available locally or through mobile clinics and that specialized services are available at larger health-care centres. Cultural accessibility means that services are sensitive to cultural beliefs and practices as well as to alternative approaches to health care. Financial accessibility means that cost is not a barrier to receiving essential health care. Functional accessibility means that physical or cognitive ability, literacy level, or language are not barriers to receiving care. Accessibility also implies access to the determinants of health (ACPH, 1994).

In the PEI model, the nurse is concerned with accessibility, especially regarding vulnerable groups such as the poor, the homeless, and the disenfranchised.

Public Participation

Public participation refers to the right of individuals, families, communities, and nations to self-determination and self-reliance in health matters (WHO, 1998). This principle originates in the concept that people have the right and the duty, individually and collectively, to participate in their own health. Governments and health-care providers have a coincident duty to provide information and the social framework for individuals, families, groups, and communities to be active partners in identifying their health concerns and in planning, implementing, and evaluating their own care (Epp, 1986).

The client works in partnership with health-care professionals, government and non-government organizations, lay helpers, and other sectors of society to promote individual and collective wellness. In PHC, “participation is encouraged out of recognition that [persons] bring their own perspective and their own expertise to issues, and these may contribute a great deal more to the quality of decisions than if the decisions are made by health workers alone” (Wass, 2000, p. 63). Access
to information concerning health and wellness is an essential element of public participation. This principle inspired the idea of partnership as the foundation of the nurse-client relationship in the PEI model. Partnership is defined as the:

...negotiated sharing of power between health professionals and individual, family, [group], and/or community partners. These partners agree to be involved as active participants in the process of mutually determining goals and actions that promote [wellness]. The ultimate goal of the partnership process is to enhance the capacity of individual, family, [group], and community partners to act more effectively on their own behalf. (Courtney, Ballard, Fauver, Gariota, & Holland, 1996, p. 180)

The nurse encourages the client to take an active role in determining his/her needs and planning appropriate interventions. The client retains the option to remain passive. However, if s/he accepts the partnership model, the nurse and client jointly establish the goals. Both partners' roles and responsibilities are continually negotiated and their contributions valued.

Appropriate Technology

Appropriate technology is the use of affordable, ethical, legal, relevant interventions, techniques, and resources to assist individuals, families, groups, and communities in achieving and maintaining health. The appropriateness of a technology is determined on the basis of its relevance to those who use it and/or on a scientific basis. It may be any combination of human resources, financial resources, information and its transmission methods, techniques, and equipment (WHO, 1978).

Appropriate technology supports the principle of staying healthy longer rather than extending unhealthy life. It includes preventive measures such as immunization, social frameworks to reduce poverty, availability of essential drugs, and universal environmental protection laws (WHO, 1998). The goal is to reduce premature mortality, morbidity, and disability by enabling people of all ages to achieve their intellectual and physical potential and improve their quality of life (WHO, 1998).

The PEI model incorporates technological innovations into the plan of care, to facilitate access to services and to help clients achieve self-reliance and self-determination. Simple, low-cost interventions that require little or no training are often most effective for the majority of clients (Stewart, 2000).
Wellness Promotion and Illness Prevention

Wellness promotion — creating environments in which people can care for themselves (Canadian Nurses Association, 1992; Epp, 1986) — is a process of enabling persons, whether ill or well, to have more control over their health and thus reach their full potential. Empowerment is the process of fostering “more equitable...relationships...in which there is greater equality in resources, status and authority” and greater personal strength, effectiveness, and power (Registered Nurses Association of British Columbia [RNABC], 1992, p. 9).

The nurse’s role in wellness promotion is to focus on enhancing the client’s knowledge, skills, and ability to act and to offer support in resolving and managing collective health problems (Courtney et al., 1996). In partnership with the client, the nurse identifies and builds upon existing strengths. Given the right environment, the strengths will come to the fore and wellness will emerge (Raeburn & Rootman, 1998).

In the PEI model, illness prevention includes helping people to cope with their circumstances, such as identifying factors that cause injury or illness and intervening to reduce or eliminate them (Epp, 1986).

In illness prevention, nurse and client work together to change or eradicate environmental barriers to one’s ability to realize aspirations, satisfy needs, or adapt. Nursing interventions encompass three levels of prevention: primary, secondary, and tertiary. Primary prevention refers to measures taken before a problem occurs (Leavell & Clark, 1965), such as encouraging the use of a bicycle helmet to prevent head injury. Secondary prevention involves screening of at-risk populations and intervening to reduce the risks (Leavell & Clark). Tertiary prevention involves minimizing the effects of illness and disability once a disease/injury has occurred and preventing complications or premature deterioration (Smith, 1995). In illness prevention, the nurse focuses on the client’s response to a situation and on helping clients to address their concerns. Nurse and client work together to achieve the client-identified potential (Hughes, 2000).

Intersectoral Collaboration

In intersectoral collaboration, individuals and groups work together across societal sectors to create conditions that support and promote wellness (RNABC, 1990; WHO, 1997). The societal sectors include not just those whose mandate is health, but also institutions and aggregates
such as government bodies, education, agriculture, transportation, environmental services, business, and health-care consumers (WHO, 1997). The interdisciplinary health team is integral to intersectoral collaboration.

The increasing interconnectedness of issues — the blurring of geopolitical, disciplinary, organizational, and functional boundaries — calls for a strengthening of intersectoral collaboration (WHO, 1997). Intersectoral collaboration is central to the idea that population health affects economic growth. Once recognized, this idea could result in health care's gaining equal status with economic and social security, thus strengthening world resolve to eliminate poverty and health inequities (WHO, 1997).

In the PEI model, the nurse is challenged to think "upstream" about the social, political, and economic factors that contribute to a health concern. The nurse identifies potential wellness collaborators both within and outside the health sector. Each member of the team is an equal contributor, with his/her expertise being valued and respected.

The Nursing Process

In relation to the nursing process, a conceptual model provides guidelines for observing and then interpreting the observations. It gives rationale for interventions and direction for evaluating the outcomes (Fawcett, 1995). In the PEI model, all steps in the nursing process — assessing, identifying the health concern, planning, implementing, and evaluating care — are carried out in partnership with the client. The second step, identifying the health concern, was renamed to fit the conceptual definitions of this model. The health concern can be either a strength or a problem.

While the PEI model assumes that all PHC principles are applicable in a given health situation, they will not all necessarily receive the same emphasis or be equally relevant to each situation. Public participation is a guiding principle at every step in the nursing process. Accessibility is also relevant for every step but is of most concern during planning, to ensure that the plan is truly accessible for the client. Appropriate technology is especially important during assessment, implementation, and evaluation. Intersectoral collaboration is integral to planning and implementation and is relevant to assessment in particular client situations. The overall emphasis of implementation, for all
individual, family, group, and community situations, is wellness promotion. Following are some brief examples of the nursing process in the PEI model.

**Assessment.** Conceptual definitions in the PEI model provide clues about what to assess. For example, a comprehensive assessment would include data on all of the dimensions and characteristics of person and the environment. The findings are confirmed with the client. During this phase, the principle of appropriate technology is demonstrated when the nurse uses her/his five senses and/or knowledge and assessment skills to draw a comprehensive picture of the client.

**Identifying the health concern.** Working in partnership, the nurse and client identify and assess the immediate health concern. The nurse shares his/her observations and findings, seeks the client’s perspective, and works with the client to identify the area(s) of most concern. Once the client’s immediate concern has been addressed, a more detailed assessment is conducted and the nurse and client redefine the concern. If they cannot agree on the identification and priority of health concerns, the client’s decision takes precedence.

**Planning.** The plan must be accessible to the client geographically, culturally, financially, and functionally, and the appropriate resources for the particular situation must be considered. The client’s situation may call for both intersectoral and interdisciplinary collaboration. The collaborators could include a nurse and a pharmacist (health sector), a teacher (education sector), and a policy planner (government sector). The client plays a key role in decision-making, including setting priorities and determining his/her ability to implement the changes.

**Implementation.** The goal of implementation is the achievement of wellness and the prevention of illness. For example, a community that is concerned about increasing numbers of adolescent smokers would identify the appropriate resources and sectors to address this concern. The nurse facilitates collaboration between the various sectors in drawing up a comprehensive non-smoking plan.

**Evaluation.** Nurse and client evaluate the process and outcome of the plan on the basis of PHC principles. In evaluating accessibility, for example, they could ask the following questions: Was there a convenient place for the client to take his/her health concerns (geographic accessibility)? Did the client have enough money to get to the clinic or to purchase the required resources (financial accessibility)? Was the educational material presented at a level the client could understand
(functional accessibility), and was it culturally appropriate for the client (cultural accessibility)?

Relationship Statements

The relationship statements concern the unique aspects of the PEI model, as follows: (a) clients influence and are influenced by their interaction with the environment; (b) environment is the context in which health-related activities take place; (c) health is influenced by the sociopolitical environment and the determinants of health; (d) clients function in partnership with nurses and other sectors; (e) clients achieve wellness through a process of collaborating with nursing and other disciplines and sectors; (f) the sociopolitical environment influences the interaction of clients with the determinants of health (within the context of their environment); and (g) nursing, functioning through a PHC filter, works in partnership with clients to achieve wellness and/or prevent illness. A schema of the person/environment/nursing relationship is presented in Figure 1.

Implications for Nursing Practice, Research, and Education

The PEI model provides rich opportunities for practice, research, and education. It guides nursing through identification of the dimensions of client and environment, description of the components of health, and articulation of the profession from a PHC perspective.

Research may include theoretical and practical testing of new concepts of the model as they emerge, testing of relationship statements linking the metaparadigm concepts, and testing of a newly derived set of propositions to validate the model. A demonstration project could be launched to determine how the five PHC principles interact with and influence implementation of the nursing process, and research could be conducted to determine what communications skills are required by practitioners in a partnership-based nursing framework. Central to any research in a PHC model is inclusion of the client partner in the process and products of research.

The PEI model can be used as a guide for curriculum design and implementation. The student-teacher relationship is one of partnership, teaching strategies favour student participation, and the content focuses on PHC philosophy and principles as applied to nursing. The political role of the nurse is stressed, with students learning to intervene at the sociopolitical level.
Figure 1  Person/Environment/Nursing Relationship: A Primary Health Care Approach

Sociopolitical Environment (influences both client and nurse)
Summary

Traditionally, nursing models have focused on the nurse-client relationship rather than on the social, economic, and political context of health, health care, and nursing (White, 1995). PHC clearly identifies health and health care as political, necessitating a model to guide health-care delivery and nursing practice in an emerging sociopolitical environment.

The PEI Conceptual Model of Nursing based on PHC is a response to the new conceptualizations of health and to changes in the healthcare system. Consistent with the international movement for PHC, it challenges nurses to work with clients in new ways. A distinctive feature of the PEI model is that clients are urged to assume responsibility for decision-making in relation to their health care. The nurse-client partners identify and build on existing strengths in order to promote health. Conceptualization of environment as the collective influence of the determinants of health places nurse and client prominently in the sociopolitical arena of health and health care.

The challenge now is to invite dialogue, critique, and testing from a wider circle of colleagues in order to promote the model and, more importantly, further refine it. This is only a beginning.

References


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