

THE UBC MODEL FOR NURSING: An Interpretive Summary

Introduction

The **UBC Model for Nursing** was developed in 1972 by a committee chaired by Dr. Margaret Campbell at the UBC School of Nursing for the purposes of a) articulating a position on nursing's unique function regarding the individual as client, and 2) documenting a nursing framework from which nursing curricula could be developed. The first nursing curriculum based on a nursing conceptual framework in Canada was approved by the UBC Senate in 1973 and implemented the following year. The model was fleshed out over subsequent years, tools and resources for its clinical application were developed, and various health care agencies experimented with incorporating its values and objectives into their nursing organizational systems. Despite several curriculum revisions, the model has been retained in the School as a mechanism capable of promoting systematic thinking about clients, organizing complex data about individual experience, and guiding informed clinical decision-making in practice. While early practitioners of the UBC Model may have focussed on its formality in sorting and organizing data, the real value of the model has been realized by those able to move beyond its formal structure to appreciate its philosophical grounding in holism, individual meaning, and complexity science.

Although the utility of formal models has been challenged in recent years by some nurse theorists, the aims of this model remain consistent with many of the demands that current nursing places on its practitioners. While the primary functions of nursing in the early 1970s may have been with individual clients, nurses must now understand applications at all levels, including family, community and beyond. Increasingly, effective models or conceptual guides have become available to orient nurses toward their roles at each of these levels. However, no matter where the primary focus of nursing falls, awareness of the implications at the level of the individual is never abandoned and, in fact, is a hallmark of what distinguishes nursing practice from the practice of other health care disciplines in the interdisciplinary team. Thus, a model that organizes systematic and effective analysis at the individual level can sustain its contribution to nursing practice at a philosophical level if not at the level of practical application in individual cases.

Formal models, as they were developed in the 1960s and 70s, were intended not to redefine what nurses ought to do, but rather to formalize the structure of what excellent reasoning in nursing might look like. Thus, the test of a good model lies in the degree to which its ideals and guidance can assist the neophyte practitioner toward expertise. The formal structure of a model, which might seem tedious and complex

to a beginning student, takes the shape of a more general philosophical perspective in the experienced nurse. As the nurse's ability to make linkages, sort information, and generate defensible conclusions increases, his or her overt reliance on the rules and guidelines that the model provides will disappear. The point of a model, then, is to guide the practitioner toward developing excellent clinical judgement so that, in most instances, interpretations will flow naturally toward an appropriate balance of confidence and ongoing inquiry. The skilled practitioner will only be conscious of using a model when it becomes important to retrieve the logical derivations of certain decisions or when confronted with conditions that do not fit the range of expertise within nursing and must therefore be examined more deliberately and systematically.

All nurses use conceptual models, in the sense that they make their clinical judgements on the basis of ideas that they hold, facts that they think they know, and opinions they have formed about clinical phenomena through a combination of experience, reflection, study and role modelling. All nurses begin their socialization into the discipline in an education program shaped by allegiance to certain kinds of beliefs and ideas about the practice of nursing. Explicit or not, these ideas become the basis upon which student and neophyte nurses build their practice expertise. One important reason for making these ideas explicit through identification of a particular model to guide such clinical learning is that the beliefs and values are accessible to critique (which is generally not the case with implicit values). If the nurse is expected to absorb the ideas upon which the model is founded, he or she must have exposure to the implications of the ideas in the clinical as well as in the larger social universe.

The major claims of the UBC Model, including the positions it represents on questions of nursing's client, role and purpose; the unique way in which it attempts to help up understand whole and unique individuals; and the way in which it asks us to consider nursing's role with these individuals, will be outlined here. Tools, chart forms, diagrams, lists of variations and guidelines for assessing individuals have been omitted from this document for the purpose of exposing the ideas of the model itself rather than complicating the issue with the ideas implied in many of the applications that have been attempted over the years for various purposes and reasons. The curious can find all of the additional materials in Campbell (1987). But be warned -- depending on your personality, they can be overwhelming or feed compulsivity! And the point of the model is not to fill out forms, code information, or match lists but to generate really wonderful, creative, exhaustive, systematic,

comprehensive nursing thinking! No two skilled nurses will use a model in an identical manner. But nurses using the same model will easily detect underlying philosophical and analytical similarities in their thinking processes.

The Individual As Client of Nursing

The UBC Model takes the position that individual behavior is motivated by **basic** (that is, universal) **human needs**. The idea is that all of us share all of these needs, even though we may have dramatically diverse individualized goals that we aim for within these needs. For example, we all need nourishment, although what constitutes nourishment varies between cultures, societies and individuals. Basic human needs theorists vary in their decisions as to what needs are actually "basic." The model takes the position that there are nine: **1) mastery; 2) love, belongingness and dependence; 3) respect of self by self and others; 4) collection and removal of accumulated wastes; 5) intake of food and fluid; nourishment; 6) safety and security; 7) balance between production and utilization of energy; 8) intake of oxygen; and 9) stimulation of the senses**. All of these needs operates simultaneously and none is necessarily any more important than any other. [As an aside, sometimes people ask why sexuality and spirituality were not included in this list. The answer is that the behaviors we refer to in the spiritual and sexual realm are extremely complex, and strive to meet a variety of basic human needs -- and, to make it more complex, not the same ones for all of us!]

By assuming these needs, the model helps us appreciate human behavior. Philosophers and scientists have puzzled for centuries as to why people behave the way they do. One rather useful theory is because all behavior is purposeful in order to meet some need or other. In providing us with this philosophical position, the model tells us that there is no "random" behavior, and that the behavior of people can be understood. When people act in a manner that seems counterproductive, they are doing so for the purpose of attempting to meet one or more of their needs. If we can understand their behavior, then we have a chance of helping people appreciate the larger implications of some of the things they do, and even helping them discover other ways of meeting their needs that are more consistent with health in the sense of having all of their needs met. The philosophy of basic human needs tells us that the needs produce a continual striving toward meeting them (they are never completely and thoroughly met), and that this continual striving is part of the human condition. Health (or the objects of nursing's involvement) will include ease and regularity of meeting most or all of the needs, and to adapting to any changes that might threaten need satisfaction.

The position that needs are non-hierarchical is also important to consider. While a threat to oxygen can certainly threaten life, this model does not take the view that oxygen needs would always govern all human decisions. For example, the scuba diver who voluntarily constrains oxygen access for the purpose of a personal achievement illustrates that human beings vary between each other and over time with regard to the relative priority they will place on any of these needs. The idea is that our behavior will often reveal clues about which needs are of pressing concern to us at any particular moment in time.

Individuals as Behavioral Systems

Using von Bertalanffy's General System Theory as a prototype, the model conceives of individuals as **behavioral systems** composed of nine subsystems (or, domains that together represent the whole). The main principles of systems theory that are critical for our purposes are that, while all of the parts interact to make a whole, an attempt to understand parts "as if" they were separate is one important step in learning how to understand whole systems in all of their complexity. While holism is great in principal, it is very difficult to handle all knowledge about a phenomenon at one time!

In the UBC Model, the system is made up of nine subsystems, each of which represents one of the basic human needs listed above. The names assigned to the subsystems reflect the need they represent, and are as follows: **1) achieving; 2) affective; 3) ego-valuative; 4) excretory; 5) ingestive; 6) protective; 7) reparative; 8) respiratory; and 9) satiative**. People intuitively recognize that their mood influences their bodily functions, for example, and so the notion of a behavioral system is easily grasped by both nurses and their clients. What is more difficult to appreciate is the notion of the nine subsystems representing parts of that whole. I cannot conceive of my bowel and bladder function (excretory subsystem) as having a goal, for example, and it does not seem to make logical sense to think of my ambitions and my confidence (achieving and ego valuative subsystems) as being in conflict. However, the schema is not intended to help me understand myself; it is intended to help a nurse make some order and sense out of complex and contradictory client data that might otherwise seem illogical and insensible. When our elderly client panics at constipation, we can understand that reaction in the context of her value that a daily bowel movement is essential. When our younger client seems to sabotage his efforts at successful employment, it can be extremely fruitful to distinguish his actions aimed at job-seeking from his actions that reinforce a conviction that he is unworthy of hiring. Thus, the mental

construction that is so awkward when applied to analyzing ourselves turns out to expand our options for understanding phenomena when we use it to try to make sense of the behavior of another.

The Structure of Subsystems

While each subsystem represents a domain within the system as a whole, understanding each subsystem requires a bit more structure for more formal guidance. The UBC Model takes certain elements of its subsystem structure from Lewin's Field Theory, a psychological theory that attempted to illustrate the way in which our understanding of a person ought to include not only the concrete form we see before us but also all of the objects and events that have some meaning in that person's life. While my hand, for example, has tangible form and function, I also enjoy the absence of pain in my fingers, the skill with which I can paint or weave, and the sensation that I experience when I touch my baby's hair. Memories, perceptions and aspirations associated with that hand grant it meaning that is unique to me. If I suffer a debilitating injury to my hand, the nurse who tries to appreciate what it means to me, even if I cannot articulate that meaning, will come closest to an understanding that can support me back to health. Thus, the structure of subsystems is a mechanism to assist nurses toward as full an understanding of what matters within each of the domains as is possible.

As has been discussed, each system represents a basic human need, shared by all people. It also includes the **abilities** to meet that need. Such abilities may include things that the physiological body or the person is able to know, to think, or to make happen. Some abilities are inherent, such as the ability to recognize temperature change, and some are learned, such as the ability to know when one is being taunted. Some abilities are applied regularly; others may lie dormant until needed by the subsystem. The abilities are understood as the source of all coping behaviors by which the subsystem tries to meet its need. We act because we can. If certain abilities are lost or destroyed, such as with neurological damage due to a stroke, we may not be able to generate the same coping behaviors toward meeting our needs and may need to learn new ones. These **coping behaviors**, or the range of behaviors that an individual has access to in order to meet a particular need, are also part of the subsystem structure. In general, people will have a range or repertoire of coping behaviors from which they can draw in order to maintain meeting their need (such as ongoing breathing to meet the basic need for oxygen) and in order to make predictable adaptations to meet the need under changing circumstances (such as panting during exertion or shutting down peripheral circulation in extreme cold to

maintain adequate oxygen levels). Nurses are often in the position of helping clients discover or learn new coping behaviors to deal with new circumstances, and so may often require a rather in-depth understanding of each individual's particular constellation of possibilities. These parts, the need, the abilities, and the coping behaviors, are all considered the "core" of the subsystem.

Surrounding the core of the subsystem are two other important parts: the **goals** each person has in relation to the need and the **forces** that influence how the need is met. Conceptualizing these as part of the "**psychological environment**" (or that theoretical area of memories, perceptions and aspirations that extends beyond the form and function of the subsystem), we are challenged to recognize that both goals and forces are highly individualized and that we really cannot know them except through the client him or herself. "Knowing the patient" is a popular challenge in current nursing literature, and the idea of psychological environment is to guide us to get to know our clients as well as we can in order to be as accurate as possible about what matters to them and what factors are influencing them. Obviously, an unconscious client provides a rather different challenge than does an insightful and verbally generous adult. In either case, however, our charge is to know the goals and forces as accurately as is possible in order to be able to appreciate relationships among the data and to predict the implications of various interventions. Thus, the subsystem structure includes both the inner core, with the need, abilities and coping behaviors, as well as the psychological environment, with the individually constructed goals and forces. Some understanding of all of these will be important for the nurse to understand each domain of the client as a behavioral system.

The Mandate of the Nurse

The question of when nurses should or should not involve themselves with an individual as client has become increasingly more complex with time. Decades ago, sick people needed nurses; well people did not. More recently, nursing considered its mandate (except for a few select exceptions such as public health nursing) as patients who were hospitalized. Now, we recognize that some well people need nurses to stay well, some ill people are fine on their own, and being in hospital may signal the need for nursing care but it is not a very reliable signal. In the UBC Model, the mandate for nursing's entry into a relationship with a client is the nurse's recognition that the individual is in a **critical period** in the lifecycle. Such a period can derive from life changes and events or from less predictable situations such as illness. A critical period is a time during

which our nursing theory base tells us that the individual may require outside assistance to continue to meet his or her basic human needs.

The definition of critical period in this model is purposefully distinguished from any conclusions the nurse might make about the client on the basis of assessment. This means that the nurse has a mandate for approaching the client irrespective of whether the events causing the critical period actually result in difficulties meeting needs. It means that we have a mandate to predict, within society, which people may have such difficulties and under which circumstances. However, the presence of a critical period itself is never a sufficient basis upon which to intervene; intervention only emerges from an analysis of the data indicating an individual response to the critical period that actually warrants intervention.

The idea of critical period, then, is to orient us toward our knowledge base (which is of course constantly changing) as a source of insight about who might require nursing and when and how. The presence of an identifiable critical period (such as impending abdominal surgery) therefore charges us with attempting to enter into a relationship with the client to determine how this event will have meaning for the system as a whole. Our knowledge base about the event will prove useful for rendering our subsystem data assessment precise, relevant, and systematic with relation to the predictable outcomes. While it informs our assessment, it is still the individual assessment that will form the basis for our eventual decisions as to what nursing interventions will make the desired difference. Facing identical abdominal surgeries, the experienced patient may have entirely different needs than would the newly diagnosed individual. Critical period, therefore, brings our normative knowledge base to bear on our data gathering, and the subsystem structure forces us to understand this normative information in the context of our client's individuality. Because of this, the Model helps us know how to use generalizations without invalidating human individual difference.

The Role of the Nurse

In the presence of a critical period, the nurse enters into a relationship with the client for the purpose of learning about how that event might influence the whole person. He or she does this by conducting a systematic subsystem **data collection** in each of the nine domains. Because they are not hierarchical, the assessment can begin wherever it is most logical in the circumstances to begin. While a beginner may need to explore one subsystem exhaustively before moving on to the next, a more experienced nurse will follow the lead

of the client and the circumstance, but use the nine as a checklist against which to be sure that there are no missing relevant pieces.

The skilled nurse uses interview and observation as well as a range of collateral sources (family, chart records etc) to learn as much about the client as an individual as is possible or appropriate in the setting. There may be an initial formal assessment period, but data gathering and refinement will continue throughout the nurse-patient relationship. For each subsystem, the nurse considers, "How is this person trying to meet this basic human need?" This question orients the nurse toward reported and observed coping behaviors. The nurse also asks, "How would I know if this person were meeting his or her need?" This question charges the nurse with looking beyond normative information (pink lips and nail beds for example) toward the individualized goals that a patient may have for his or her own needs (to be able to get to the bathroom without shortness of breath). Because critical periods are inherently times during which there may be factors that inhibit need satisfaction, the nurse will also ask "What positive or negative factors might be influencing this person as s/he tried to meet this need?" This question challenges the nurse to consider the forces within the psychological environment, anything in the concrete environment, the social world, or indeed in relation to other subsystems within this person, that might be significant in explaining actual or potential movement toward or away from his or her goal.

Where a need is met, there are coping behaviors that seem to be doing the job well, and no serious negative forces on the horizon, a nurse may well decide that s/he has sufficient information (for now) to understand this subsystem. However, where there are complex issues, needs unmet, or new and difficult forces to consider, the subsystem structure provides further guidance in understanding how all of the various aspects of that domain of the person fit together. In a well nourished and active child, for example, a cursory assessment may be all that is required to understand the ingestive implications for the whole system. In an teenager with anorexia nervosa, the nurse will require a much more exhaustive appreciation for the biochemical, social, familial and cognitive forces and abilities to begin to explain the coping behaviors that are apparent in the client and to appreciate the possible implications of any intervention plan for each unique case. Thus, the structure permits an almost infinite depth of analysis where such depth is required. Because knowledge of the critical period and skill at individual assessment guide the nurse's judgement about the depth necessary in any one case, the model depends on a solid knowledge base and excellent interpersonal communication skills. Since this built in flexibility means

that no two assessments will alike, the model is not well suited to a standardized data gathering tool. Rather, it depends on the user to use the structure as an internal guide to determine when and where more depth is necessary.

Analysis of Data

As has been explained above, the nurse asks a series of questions in relation to each subsystem (domain) until he or she can confidently draw conclusions about the way in which the need is being met and whether there are any current or predictable threats to meeting that need. As has also been mentioned, the human client is by no means static, and so a conclusion on one occasion must always be open to revision with new information. When all nine needs are met, the model calls this a state of **behavioral system balance**. Balance can be precarious, and something that causes even one need to be unmet will produce the state called **imbalance**. From general system theory, the model takes the position that imbalance normally requires intervention from an outside source (such as the nurse), so the term imbalance refers to those occasions in which a person cannot maintain balance independently. In contrast, balance can be quite stable in cases in which an individual not only meets needs but also has a repertoire of available coping behaviors such that many predictable or unpredictable events can be managed without outside help. When the system has the qualities that can permit it to retain balance even in the face of challenges, the model considers that a state of **behavioral system stability**. The ideal toward which nursing strives, the ultimate aim of our involvement with the individual client, is **optimal health**, which is seen as the highest level of stability that our client is able to imagine and value at any point in time.

A determination of the state of balance or stability during a critical period is the basis upon which a nurse decides whether a plan for intervention is or is not required. Where there is imbalance, the nurse will generally strive to assist the client toward balance (although it must be remembered that clients may refuse to accept nursing assistance). Where there is balance and stability, the nurse may well identify potential threats to balance that might be modified, or design ways in which to increase the level of stability that can be realised.

Nursing diagnosis using the UBC Model is highly individualized, focussing on coping behaviors that serve as a pivot for the design of nursing interventions. Where there are coping behaviors that are failing to meet needs (or indeed are causing havoc in relation to another subsystem) these will often become the focus. Coping behaviors requiring strengthening or modification, or absent but necessary

coping behaviors can also become such a focus. Rather than asking the nurse to select from a standardized list of neatly articulated diagnostic statements (such as NANDA), this model challenges the nurse to individualize the diagnostic process, keeping in mind that coping behaviors are central in our clients struggle to meet basic human needs. Like Nightingale and our other nursing ancestors, we are charged with creating the conditions under which our clients can learn and use coping behaviors that will fulfil their purposes in a way that will be meaningful to them and therefore satisfy their needs. From subsystem structure, we understand the relationships between goals, forces, abilities and behaviors. In constructing a nursing diagnosis based on coping behaviors, the nurse has access to all of the relevant data, unique to this client, as to why this particular configuration of coping behaviors is or is not suitable for meeting needs at the moment. The forces and abilities that explain coping behaviors and their success become the variables that the nurse can consider manipulating in the process of planning intervention options. Because those data have been linked in the initial assessment, predictions can be made as to the probable impact of manipulating certain variables (are they influencing more than one subsystem? is there hidden meaning? etc). Thus, the individualized intervention plan will be derived from knowledge of this specific individual in the context of this general critical period in the lifecycle.

Evaluating Nursing Intervention

What differentiates a conceptual model from a framework is the degree of direction it provides beyond simply organizing and sorting data. Through its structural precision, this model provides a thorough and comprehensive mechanism by which to evaluate the impact of our interventions with clients. Since the diagnosis is constructed with a focus on an individual's own coping behaviors, an initial evaluation will tell us whether that unsuitable coping behavior has been eliminated, the weak coping behavior strengthened, and so on. However, since we understand the system as entirely interrelated, we cannot conclude our evaluation on the basis of that level of desired change. Rather, we must consider whether there may be any untoward effects from that change on any other subsystem. If there are not, we next consider whether there are effects upon the level of balance or stability within the entire system. At each level of evaluation, we have the opportunity to return to refining assessment and revising out intervention plan as necessary. Confidence that we have made a positive difference for our client is not possible until we have completed the evaluation

at the level of the system as a whole. In other words, if we have extinguished an unsociable behavior but left him a discouraged and hopeless man, we will not have fulfilled our task.

Conclusion

The UBC Model for Nursing represents a mechanism for the development and refinement of systematic thinking in nursing at the same time as it orients the nurse toward some rather complex and abstract values about patients and nursing. It creates a means by which holistic interpretations can be developed, individual meaning understood, and context-specific plans created. By encouraging a systematic, holistic clinical reasoning process, it aims to provide the beginning nurse with coherent intellectual direction and the more experienced nurse with a strong logical structure on which to defend and articulate skilled nursing judgements.

References

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NEED AND GOAL OF NINE SUBSYSTEMS

Subsystem	Need (universal)	Goal (individualized)
Achieving	Mastery	Feelings of accomplishment; satisfaction with accomplishments
Affective	Love, belongingness and dependence	Feelings of love, belongingness and dependence
Ego-Valuative	Self respect	Self esteem
Excretory	Collection and removal of accumulated wastes	Absence of accumulated wastes
Ingestive	Intake of food and fluid; nourishment	Nourishment; satisfaction of hunger and thirst
Protective	Safety and security	Integrity of the system
Reparative	Balance between production and utilization of energy	Capacity for activity
Respiratory	Intake of oxygen	Oxygenation; easy Respirations
Satiative	Stimulation of the Sensory system's senses	Sensory satisfaction

