

ONE CONCEPTUAL MODEL OF NURSING

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Nursing is ill defined as a field of practice or inquiry at present. There is of course commitment by nurses to an ultimate goal of health for all members of our society--a goal which directs the activities of all those in the health field. And at a general level, there seems to be a reasonably high degree of consensus among nurses that nursing is concerned first with the person who is ill, rather than the illness. (1) Beyond this diversity begins. There is no explicit, limited ideal goal for patients in nursing practice to which all nurses subscribe. Neither is there a clear and widely accepted conception of the objects of scientific investigation in nursing.

Although there is no collective professional agreement, each nurse does hold some conception, some mental image of the patient, of the proper focus of nursing's concern, and of the goals in patient care she is seeking. To illustrate this point, let me quote from two men whose concerns with such mental images differ somewhat. Alex Inkeles says:

"Each sociologist carries in his head one or more 'models' of society and man which greatly influence what he looks for, what he sees, and what he does with his observations by way of fitting them, along with other facts, into a larger scheme of explanation. In this respect the sociologist is not different from any other scientist. Each scientist holds some general conception of the realm in which he is working, some mental image of 'how it is put together and how it works.' Such models are indispensable to scientific work." (2)

And Robert Chin adds:

"All practitioners have ways of thinking about and figuring out situations of change. These ways are embodied in the concepts with which they apprehend the dynamics of the client-system they are working with, their relationship to it, and their processes of helping with change. . . . No practitioner can carry on thought processes without such concepts; indeed no observations or diagnoses are ever made on 'raw facts' because facts are really observations made within a set of concepts." (3)

Inkeles and Chin are suggesting that conceptual models serve several purposes. For many, and perhaps all scientists, conceptual models provide a general perspective, a guide for what is studied and for how observations are to be interpreted. Scientists often construct quite explicit and precise models also, as a way of organizing their thinking to direct empirical research. For the practitioner, conceptual models provide a

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diagnostic and treatment orientation, and thus are of considerable practical import. Both Inkeles and Chin caution that if these models which we all have are to be really useful, they can and must be made explicit. Only by doing so, can they be subjected to scrutiny and criticism and tested for congruity with reality.

We are concerned today with discussing one such mental image, or model of nursing. As an analytic model, it conforms with Chin's definition: ". . . a constructed simplification of some part of reality that retains only those features regarded as essential for relating similar processes whenever and wherever they occur." (4) It should be made entirely clear that this model, as is true of all conceptual models, is an invention of the mind for a purpose. It is drawn from reality and pertains to reality, but it does not constitute reality. The flow of influence is outward; that is to say, we are not trying to construct here a theory of nursing, but rather to find a way of thinking about nursing which will provide direction and guidelines for practice, education, and research in nursing.

Starting with nursing's traditional concern for the person who is ill, we have come to conceive of nursing's specific contribution to patient welfare as that of fostering efficient and effective behavioral functioning in the patient to prevent illness and during and following illness. This means to us a person whose behavior is commensurate with social demands; who is able to modify his behavior in ways which support biological imperatives; who is able to benefit to the fullest extent during illness from the physician's knowledge and skill; and whose behavior does not reveal unnecessary trauma as a consequence of illness. Thus we see nursing offering a service which is complementary to that of medicine.

With this focus on efficient and effective behavioral functioning, it has seemed useful to us to conceive the patient as a behavioral system, in much the same way that the patient is conceived as a biological system in medicine. By the use of the construct, system, in reference to behavior we assume that there is "organization, interaction, interdependency, and integration of the parts and elements" of behavior which go to make up the system. (5) The interrelated parts we call sub-systems of behaviors; these will be described a little more fully in a moment. We assume further that a system tends "to achieve a balance among the various forces operating within and upon it"(6), and that man strives continually to maintain a behavioral system balance, a steady state, by more or less automatic adjustments and adaptations to the "natural" forces impinging upon him. At the same time we recognize that man also actively seeks new experiences which may disturb his steady state at least temporarily, and which may require large or small behavioral modifications to re-establish balance. We also assume that behavioral system balance, which requires some degree of regularity and constancy in behavior, is essential to man; that is to say, it is functionally significant in that it serves some useful purpose both in social life and for the individual. Finally, we assume that behavioral system balance reflects adjustment or adaptation which is "successful" in some way or to some degree, even though the observed behaviors may not coincide with the cultural norms for acceptable or healthy behavior.

It seems likely that for most individuals, for most of the time, the behavioral system is functionally efficient and effective. There appears

to be "built-in," sufficient flexibility to take account of the usual fluctuations in the impinging forces, and enough stress tolerance for the system to adjust to many common, but unusual fluctuations. The behavioral system (or its collective subsystems) is thought to determine and limit the interaction between the person and his environment and to establish the relation of the person to the objects and events in his environment. Thus the patterned and repetitive ways of behaving that characterize the life of man are conceived as forming an organized and integrated whole, the behavioral system, made up of interrelated and interdependent parts, the behavioral subsystems.

Each subsystem is comprised of "a set of behavioral responses or responsive tendencies which seem to share a common drive or goal." (7) This set of behavioral responses is made up of a number of related behavioral acts which are functional in achieving the goal (or satisfying the drive). These responses are developed and modified over time through maturation and experience; they are determined developmentally and are continuously governed by a multitude of biological, psychological, and social factors operating in a complex and interlocking fashion. These responses are reasonably stable at any given point in time, recur regularly, and are observable.

The subsystems are linked and open, and a disturbance in one is likely to have an effect on others. Each subsystem has structure and function and can be described along these dimensions. Each has certain functional requirements which must be met for the subsystem to remain viable and to grow; that is, each must be protected from noxious influences, nurtured through an appropriate input of essential supplies, and stimulated to enhance growth and to inhibit stagnation. These subsystems tend to be self-maintaining and self-perpetuating so long as internal and external environmental relationships remain orderly and predictable, the conditions and resources necessary to meet their functional requirements are met, and the interrelationships among the subsystems remain harmonious. If these conditions are not met (and illness not infrequently is a disturbing event) malfunction is apparent in behavior which in part becomes disorganized, erratic, and nonfunctional.

A number of subsystems have been identified thus far. Included in the conception currently are the subsystems of affiliation, aggression, dependence, achievement, ingestion, elimination, and sex. It will be recognized that this listing encompasses behavioral responses which have several characteristics in common. They appear to be cross-cultural; i.e., they have reference to drives or goals which seem significant in all human societies, even though the specific responses may differ. There seems to be a large component of biological determinism in each, and in this respect they bear a relationship to non-human primates and even to animals lower on the phylogenetic scale. One or more of these subsystems is likely to be involved in any episode of illness, whether in an antecedent or a consequence way, or simply in association, directly or indirectly, with the disorder or its treatment. It will also be recognized that relatively well-delineated behavioral responses or patterns have been isolated and described for these subsystems in a number of cultures (and for several species) through the work of several disciplines (e.g., 8-13).

With this conception of the patient as a behavioral system, nursing's primary goal--specific, limited, and ideal--is thought to be that of behavioral system equilibrium and dynamic stability. This goal for nursing is based upon several additional assumptions. We assume that if extraordinarily strong impinging forces, or a lowered resistance to or capacity to adjust to more moderate forces, disturb behavioral system balance, the integrity of the person is threatened. We also assume that the attempt by man to preserve, or re-establish behavioral system balance in the face of continuing excessive forces making for imbalance requires an extraordinary expenditure of energy. And finally we assume that insofar as behavioral system balance requires a minimum (for the moment at least and in reference to a particular individual) expenditure of energy, a larger supply of energy is available in the service of biological processes and recovery.

Nursing is seen as an external regulatory force which acts to preserve the organization and integration of the patient's behavior under those conditions in which illness or the threat of illness are found. The force of nursing is directed toward man's efforts to maintain his behavioral system balance and over-all stability. This force operates through the temporary imposition of external regulatory and control mechanisms, such as inhibiting ineffective behavioral responses, and assisting the patient to acquire new responses. The force also operates by making available those conditions and resources which are essential to fulfilling the functional requirements of the subsystems. The nurse might, for example, both protect and nurture the affiliative subsystem of the young hospitalized child by making certain that he has continued access to his mother.

As an analytic model is applied to the concrete case, the necessity for an explicit value system to guide action becomes apparent. Who sets the empirical goals in practice and what behaviors are to be regarded as acceptable or desirable? There is a wide range of behavior which is tolerated in this society or any other, and only the middle section of the continuum can be said to represent the cultural norms. So long as behavior does not threaten the survival of society, either directly through the death or lack of productivity of individuals or indirectly through the creation of massive disorder or deviance from established social values, it appears to be acceptable. The outer limits of acceptable, and therefore tolerated, behavior are thus set for the professions by society, but in fact, the limits of acceptable behavior set by the health professions, including nursing, probably tend to be narrower in some areas and in some respects than those set by the larger society.

Since the professions have an obligation which goes beyond accepting the current state of affairs to shaping the reality of the future, an additional facet of this problem of values is that of determining what is desirable, rather than simply acceptable behavior. At least two closely related facts must be remembered in this connection. In the first place, forced change in behavior in one area of life may and often does require other behavioral modifications. The consequences may be unforeseen, unintended, and undesirable. Secondly, the current status of knowledge about man and his universe does not allow us to predict, with reasonable certainty, a configuration of behavioral responses which measured against some established standards, could be said to be of a "better" or a "higher" level in an absolute way.

Applying these considerations to the establishment of a value system for the use of this model leads us to certain conclusions. First of all nursing must not, in our opinion, purposefully support, certainly over a prolonged period or in the absence of other counteractive measures, behavioral responses which are so deviant that they are intolerant to society or constitute a threat to the survival of the individual, either socially or biologically, and thus ultimately are a threat to society. We believe further that while nursing has an obligation to seek the highest possible level of behavioral functioning, and to contribute, through research, to the specification of what that level might be, we cannot afford to go very far beyond what is known. Quite specifically, we do not think that nursing can presume to transform the values, beliefs, and norms of the individuals we serve to those in accordance with the culture of middle-class, urban, American society which we generally represent. We cannot, and must not substitute our judgments at any given point in time for those of the individual or of the larger society.

It may be helpful at this point to demonstrate by the use of examples the operational utility of the model in directing practice, research, and the development of educational programs. These examples provide only a flavor of the implications of the model, since a complete and full exposition in each area would be much too time-consuming.

The young infant whose medical diagnosis is "failure to thrive" often offers an excellent example of a nursing problem of insufficiency; that is, the functional requirements of the subsystems have not been adequately met. The behavioral picture he presents--lethargy; retarded development in the motor, personal-social, adaptive, and language areas; rigidity in body posture; blank visual staring; and the like--may represent a form of behavioral system balance and over-all stability, but clearly the balance falls below the limits of acceptable behavior and constitutes a threat to his survival both socially and biologically. The delineation of the behavioral subsystems offers the nursing practitioner a systematic approach to the evaluation of current behavior and provides a basis for determining what is needed to protect, nurture, and stimulate each. Among the major interventions the practitioner will use in such a case are techniques of sensory and social stimulation to serve both arousal and cue functions, and techniques of reinforcement to insure learning. In managing this problem of insufficiency, the practitioner will wish to contribute to the infant's progress in such a way that behavioral responses for each of those subsystems become increasingly differentiated, and efficient and effective responses are developed. Her immediate aim will be sufficient progress along these lines so that the infant presents a different picture to his mother (or other care-taker)--a picture of a growing, responsive, unique individual--so that what may have become a vicious circle in mother-infant interaction can be broken.

In most instances, the mothers of such infants also have problems, medical and social as well as nursing problems. While the physician (psychiatrist) assists the mother with her intrapersonal problems, and the social worker with problems in role relationships and social life, the nurse can work with the mother's behavioral system balance problems as these affect the infant. For example, the mother may have been experiencing

a conflict between her dependency and achievement subsystems resulting in inconsistent care of the infant. By providing feedback to the mother, such as approval for her efforts and results in care-taking and explicit observations of indications of infant responsiveness, the nurse in this case may strengthen the satisfactions accruing to the mother and her sense of achievement in maternal care. The nurse's aim will be a behavioral system balance for the mother which is satisfactory for her, but also compatible with the infant's requirements for care.

The adult male who experiences a coronary for which he is hospitalized and on bed rest for several weeks may present a different type of nursing problem. It often happens in such cases that the previous behavioral system balance has been one in which the achievement subsystem has been dominant; that is, this one subsystem has governed a major proportion of all behavior. Since the medical problem, at least temporarily and perhaps permanently, will probably require limitations in the usual forms of achievement behavior and also calls for some increase in dependency behavior, it becomes nursing's task to assist the patient to find a new level or rearrangement in the balance of his behavioral subsystems. The nurse will need to estimate resistance to and capacity for change and to isolate those factors which, when properly manipulated, offer promise of leading to a rebalance more commensurate with the demands of biological imperatives and the treatment of the medical problem by the physician. This may well mean expanding the patient's choice of alternatives in achievement behavior and altering his set toward, or predisposition to act only in certain ways, while at the same time inhibiting behavioral responses which are now inappropriate. It may also mean nurturing and stimulating other subsystems whose functional significance has now increased; for example, the affiliative and the dependency subsystems, so that they may assume a larger role in the rebalanced system.

A number of the nursing actions suggested in these two examples will sound very familiar to most of you, even though they are placed in a different context and in the midst of what may sound like strange "jargon." Clearly then the value of the model does not lie so much in the fact that it leads to very different forms of action--if it did depart markedly from currently accepted practice, it would perhaps be open to greater question than it otherwise might be. The value lies in other areas, a point to which I shall return in a moment.

The educational implications of the model are reasonably clear. The student would require, in addition to pertinent course work in the several related biological and behavioral sciences, courses which offer description and analysis of the behavioral subsystems and their interrelationships. She would also need to acquire the knowledge and skill essential to the identification and management of behavioral system problems. The educator's task in the latter area will be difficult since the needed years of patient and painstaking investigation are still before us and our knowledge is more intuitive and speculative than scientific. Although this discussion is focused on nursing's primary function, as we see it, any educational program in nursing must take into account nursing's secondary function. Because the student needs to be prepared to assist the physician in his task through the execution of those activities and responsibilities delegated to nursing, this curriculum also must provide course work and experience in this

regard. The scientific rationale for those common medical techniques she will be expected to carry out must be grasped by the student, and she must have sufficient experience with these techniques to enable her to be a knowledgeable observer and a skilled medical technician.

Nursing's research task, based on this perspective, is to identify and explain the behavioral system disorders which arise in connection with illness, and to develop the rationale for and the means of management. The behavioral system disorders with which nursing is concerned are thought to be of two types: (1) those which are related tangentially or peripherally to disorder in the biological system; that is, they are precipitated simply by the fact of illness or the situational context of treatment; and (2) those which are an integral part of a biological system disorder in that they are either directly associated with or a direct consequence of a particular kind of biological system disorder or its treatment. Nursing will also contribute to general scientific knowledge, particularly when this knowledge is basic to the development of nursing knowledge. Such contributions may take the form of elucidation of the determinants of behavior, from either the biological, psychological, or social perspective, or of the interrelationships of these factors as they regulate and control behavior.

This then, in capsule form, is one conceptual model of nursing, however incomplete and tentative it may be. Explication of this model has been undertaken in the hope that it might serve, in a general way, as a useful tool in theory construction in nursing; as a fruitful assessment and intervention orientation for nursing practice; and as an efficient guide to the form and content of educational programs. Its utility in these respects seems promising, as has just been indicated. It must be noted, however, that this model has not yet been effectively or conclusively tested against two other evaluative criteria of critical importance. We do not yet know with a reasonable degree of certainty whether the model leads to actions and the achievement of goals which are congruent with what society expects and requires from nursing. Nor do we know to what degree the goals in patient care achieved through this orientation make a significant contribution to patient welfare and progress. Application of both of these criteria will ultimately determine the "rightness" or "wrongness" of the model.

Since I can foresee at least three questions which are certain to be raised in one form or another, I would like to conclude by speaking briefly to each. The first is: What are the advantages of this model relative to others which have been proposed in the literature, for example, Orlando (14), Peplau (15), Howland and McDowell (16), Harms and McDonald (17), and Henderson (18)? It is not possible for me here to offer individual comparisons, but I can present briefly some of the general advantages I see in this model, leaving it to you to make your own comparisons.

1. The assumptions and values of the model are made explicit. This allows their examination and offers the possibility that those assumptions which have not been adequately verified can be logically and perhaps empirically tested.

2. The model offers a reasonably precise and limited ideal goal for nursing by stating the end product desired. Specification of this ideal state or condition is the first step in its operational definition in the concrete case. It thus offers promise for the establishment of standards against which to measure the effectiveness and significance of nursing actions.
3. The model directs our attention to those aspects of the patient, in all his complex reality, with which nursing is concerned, and provides a systematic way to approach the identification of nursing problems.
4. It provides us with clues as to the source of difficulty (i.e., either functional or structural stress).
5. It offers a focus for intervention and suggests the major modes of intervention which will be required.
6. It opens the door to focused research programs in nursing and the possibility that the findings of individual investigators will become cumulative and of theoretical as well as of practical significance.

The second question might be phrased in this way: Is there room for more than one model in nursing? Clearly at this point in time, the answer to this question must certainly be yes. There is little basis now for saying that any of the models currently in use lead to actions which are more or less congruent with societal expectations or more or less significant for patient welfare. When a model of nursing is available against which both of these criteria can be applied with affirmative results, and if the goal of nursing action specified by the model is sufficiently broad to encompass the inclusive nursing responsibility, then I doubt the value of more than one general model for the field as a whole. Of course this will not end the use of a variety of conceptual models within the field, particularly as a tool in theory construction, but they will probably be derivatives of this major model and more limited in scope. In connection with this question and my answer, I would like to offer another quotation. Lynn White, an historian, was working with a group of engineers who were trying to clarify or reclarify engineering's mission in society as a basis for curriculum revision; in one of their conferences, he stated:

"One mark of a mature profession is consciousness of its own history. A second and equally important mark, however, is conscious dedication to an explicit, ideal goal, a consciousness which pervades the teaching of those intending to enter the profession. Medical men are dedicated by their ancient oath to the liberation of mankind from the ills of the flesh. Lawyers are committed to liberation from injustice. The academic profession is devoted to liberation from ignorance, whether by research or teaching. The clergy is consecrated to liberating man from the self. . . . Engineers are,

and always have been implicitly dedicated to the liberation of mankind from the limitations of the physical world." (19)

The last question concerns the implications of this model for the relationship between medicine and nursing. From my limited knowledge of the history of the two fields, I believe I am safe in saying that nursing, even modern nursing, did not come into being with a goal of "the liberation of mankind from the ills of the flesh." This goal, as Lynn White suggests, has always been medicine's. As a service, nursing is probably as old as medicine, however, and apparently arose somewhat independently of medicine and in response to the need of the sick, the injured, and the dependent for physical care, emotional support, and protection. (20) One must inevitably ask the question: Can nursing then represent a specialized area of work within medicine, as many inside and outside the field seem to take for granted? or does the centuries old division of labor in the care of the sick between medicine and nursing represent a division in original responsibility? If the latter is the case, as I believe, then there must be an implicit, ideal goal for nursing which differs from, even though it is related to that of medicine.

This model attempts to specify this goal in keeping with our historical concerns, and to reclarify nursing's mission and area of responsibility. In doing so, no denial of nursing's old relationship with medicine is intended. Nursing has, and undoubtedly always will play an important role in assisting medicine to fulfill its mission. We do this directly by taking on activities delegated by medicine, but also, and perhaps more importantly, we may contribute to the achievement of medicine's goals by fulfilling our own mission.

In the end the model presented here may not provide us with the guides which are needed. A general model for nursing is necessary, however. The private mental images each nurse holds are potent indeed. They guide the thoughts and actions of the practitioners who care for patients, of the educators who are building nursing programs, and of the scientists who undertake contributions to our knowledge. The variations in our conceptions have led us to considerable variation in word and deed in each of these areas and often to conflict and disorganization. Only explication of our thoughts and open discussion are likely to lead us to greater unity and to greater service to society.

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