

# **Imogene King's Interacting Systems Theory: Application in Emergency and Rural Nursing**

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## **Abstract**

Imogene King is a nursing theorist who has made significant contributions to the development of nursing knowledge. This paper gives an overview of King's Conceptual Framework and Theory of Goal Attainment and applies the theory to emergency and rural nursing. While all of King's concepts may not be applicable to emergency and rural nursing, applicable concepts are discussed. Specific clinical examples are presented to support King's work in practice. The concepts of self, body image, growth and development, time, communication, and interaction are the concepts from King's theory that the author identifies as being most useful when working with clients in the emergency room and in the rural environment.

**Keywords:** rural health, inclusion, children, special health care needs

## **Imogene King's Interacting Systems Theory: Application in Emergency and Rural Nursing**

Imogene King developed a conceptual model for nursing in the mid 1960's with the idea that human beings are open systems interacting with the environment (King, 1981). King's work is considered a conceptual model because it comprises both a conceptual framework and a theory (Fawcett, 2000). King's Conceptual Framework and Theory of Goal Attainment and use of the model in an emergency room setting are discussed. Finally, King's work is compared to rural nursing theory in an effort to identify common themes.

### **King's Theory**

The central focus of King's framework is man as a dynamic human being whose perceptions of objects, persons, and events influence his behavior, social interaction, and health (King, 1971). King's conceptual framework includes three interacting systems with each system having its own distinct group of concepts and characteristics. These systems include personal systems, interpersonal systems, and social systems. King's basic assumption maintained that nursing is a process that involves caring for human beings with health being the ultimate goal (Torres, 1986). The three systems that constitute King's conceptual framework provided the basis for the development of her Theory of Goal Attainment.

The personal system that King speaks of refers to the individual. The concepts within the personal system and fundamental in understanding human beings are perception, self, body image, growth and development, time, and space (King, 1981). King (1981) viewed perception as the most important variable because perception influences behavior. King summarized the connections among the concepts in the following statement: "An individual's perceptions of self, of body image, of time and space influence the way he or she responds to persons, objects, and events in his or her life. As individuals grow and develop through the life span, experiences

with changes in structure and function of their bodies over time influence their perceptions of self” (King, 1981, p. 19).

Interpersonal systems involve individuals interacting with one another. King refers to two individuals interacting as dyads, three individuals as triads, and four or more individuals as small or large groups (King, 1981). The concepts associated with interpersonal systems are interaction, transaction, communication, role and stress. The interactions and transactions that occur between the nurse and the client, or the dyad, represent an example of an interpersonal system. Communication between the nurse and the client can be classified as verbal or nonverbal. Verbal exchanges include both spoken and written communication, while nonverbal communication includes such things as appearance, distance, facial expressions, posture and touch (Seiloff, 1991).

The third and final interacting system in King’s model is the social system. Social systems are groups of people within a community or society that share common goals, interests, and values. Social systems provide a framework for social interaction and relationships, and establish rules of behavior and courses of action (King, 1971). Examples of social systems include the family, the school, and the church. It is within these organizations that individual’s beliefs, attitudes, values and customs are formed. The concepts that King identified as relating to social systems are organization, authority, power, status, and decision-making.

The relationships between these three systems led to King’s Theory of Goal Attainment.

The conceptual framework of the interpersonal system had the greatest influence on the development of this theory. King (1981) stated, “Although personal systems and social systems influence quality of care, the major elements in a theory of goal attainment are discovered in the interpersonal systems in which two people, who are usually strangers, come together in a health

care organization to help and to be helped to maintain a state of health that permits functioning in roles” (p. 142). King believed that interactions between the nurse and the client lead to transactions that result in goal attainment. Furthermore, King proposed that through mutual goal setting and goal attainment, transactions result in enhanced growth and development for the client (Woods, 1994). King used ten major concepts from the personal and interpersonal systems to support the Theory of Goal Attainment. Those concepts include human interactions, perception, communication, role, stress, time, space, growth and development, and transactions. To capture the essence of these interrelated concepts, King stated that “nurse and client interactions are characterized by verbal and nonverbal communication, in which information is exchanged and interpreted; by transactions, in which values, needs, and wants of each member of the dyad are shared; by perceptions of nurse and client and the situation; by self in role of client and self in role of nurse; and by stressors influencing each person and the situation in time and space” (King, 1981, p. 144).

After careful analysis of King’s Conceptual Framework and Theory of Goal Attainment, it is evident that this model can be implemented in an emergency room setting. The concepts associated with the personal system can be integrated into the assessment phase of the nursing process. Initial assessment of a patient is of utmost importance in the emergency room, especially with regard to trauma patients. However, after completion of the primary survey (airway, breathing, and circulation), nurses should take into account the patient’s feelings in regard to perception, self, body image, growth and development, time, and space. Disturbances in perceptions of self and body image often occur in trauma patients who have sustained significant bodily injury. A classic example of this in an emergency room setting involved a young college student who had a traumatic amputation of an arm due to a motor vehicle

accident. Once this patient was stable from a hemodynamic standpoint, the nurse's attention was refocused on assisting the patient in coping with the feelings of loss, separation, and anger that he was experiencing. Attempting to restore this patient's self-esteem, in light of his traumatic loss, was a mutually established goal between the nurse and the client. In this particular example, it was also important for the nurse to realize that the patient's perceptual field was narrowed because of the pain and emotion that he was experiencing.

A busy emergency department often creates an intimidating environment for patients and they may feel threatened, or feel that they have no control over decisions that affect their care. A clinical example of this occurred recently when a middle-aged woman who was experiencing acute pulmonary edema was brought to the emergency department by her husband. Because of the severity of her condition, the emergency room nurses caring for this patient immediately began taking actions to stabilize her condition, such as securing an IV line, drawing blood for labs, applying oxygen, and inserting a Foley catheter. At the same time, the patient was asking, "what are you doing to me?" When the patient's condition did not significantly improve, the physician explained to the patient and the husband that she needed to be placed on a ventilator to assist her breathing. The client was adamant that she did not want to take drastic measures, but the husband indicated that he wanted whatever was necessary to improve his wife's condition. This is an excellent example of a client losing the sense of self-hood. In regard to the concept of self, King (1981) stated "If nurses and other professionals interact with patients or clients as human beings, and let the individuals be themselves, even if they do not match the stereotype of the 'good patient', nurses and patients would help each other grow in self-awareness and in understanding of human behavior, especially in stressful life experiences" (p. 28).

The primary complaint of emergency room patients is the length of waiting time. Waiting two hours for test results may seem like an eternity for the patient, but for the nurse, time passes swiftly because s/he is usually busy caring for other patients, or performing other duties. King (1981) emphasized that waiting makes time seem even longer. One intervention that has proven successful in this situation has been the installation of televisions and telephones in patient rooms in the emergency department. These devices seem to help the patients pass the time and reduce some of the frustrations associated with long waiting times.

Of all the concepts mentioned in regard to interpersonal systems, communication requires the most attention in the emergency department. Good communication skills are imperative in the emergency room setting. In an environment that requires one to be reactive and responsive, clients often perceive nurses as being too busy or too hurried. King (1981) encouraged nurses to be aware of how they present themselves to their clients because the manner in which nurses enter a client's room sets the tone for the entire encounter. Poor communication skills lead to poor transactions and interactions between the nurse and the client. Poor communication skills also affect goal setting and goal attainment. This is especially true in the emergency department as evidenced by patients returning for follow-up visits who have not followed their discharge instructions, and hence, their health has suffered. A clinical example of this is a young adult male with diabetes who was treated recently in an emergency department for a wound to the lower leg. The patient returned for a follow-up visit with the wound open to air and infected. An in-depth assessment revealed that the patient did not understand the dressing needed changing daily and that he need to keep the extremity elevated. This lack of communication between the nurse and the client resulted in goals not being attained.

## **Rural Nursing Theory**

Rural residents are a unique group of individuals. They acknowledge one another on the streets, share their garden vegetables in the summer, and congregate on Sunday to worship according to their faith. For the most part, rural residents are independent, hardworking, and self-sufficient individuals who consider themselves healthy if they are able to go to work each day and perform their usual activities of daily living (Weinart & Long, 1987). Because of the strong work ethic in rural communities, health care needs often come second to work needs. Rural residents are more likely to comply with health care regimens that do not interfere with their daily routines, or create inconveniences for them. For these reasons, nurses dealing with rural populations must be aware of the differences that exist between rural and urban populations.

“While rural nursing theory is clearly still a work in progress, much of what has been learned to date can be applied, albeit with caution, in nursing practice” (Long, 1998, p. 481). This statement supports this author's belief that King's conceptualizations about nursing can be implemented in the rural setting. While all of King's concepts may not be applicable in the rural setting, some discussion of the concepts that are useful may be helpful to nurses practicing in rural settings. After careful consideration of the concepts associated with King's three interacting systems, the concepts of perception, growth and development, time, communication and interaction are helpful to the nurse when attempting to explain and predict the health practices of rural clients.

Rural dwellers have a different perception of health than that of urban dwellers. Data indicate that rural clients often delay seeking health care until their health has been severely compromised (Weinart & Long, 1998). The nurse working with rural clients must consider the

client's perceptions of health when conducting an assessment. Rural clients may not have the same access to health care as urban dwellers, and health is often not a priority for them. It is important for the nurse to be non-judgmental in these situations because this is simply a way of life for rural residents, a way of life that they have come to accept as the norm.

Growth and development is another concept that is applicable to rural nursing. It is common to see boys operating farm equipment and performing the same tasks as their older counterparts on the farms in rural communities. The boys learn to drive much earlier than may be the norm in cities, and occasionally the accelerator and brake pedals have large blocks added to them to enable the boys to reach the pedals in order to operate the farm equipment. For these reasons, the nurse must be attuned to the fact that the growth and development patterns of these youngsters may differ from those expected at their chronological age. These youngsters have been mainstreamed into society to function in adult roles and this must be taken into account when dealing with adolescents in the rural environment.

King's concept of time can also be attributed to rural communities. Rural residents are more likely to participate in health care if it can easily be accommodated into their work schedules (Weinart & Long, 1987). If rural residents must travel 60 to 70 miles for healthcare, they may feel that this takes too much time out of their day, and so they may fail to keep appointments. Long (1998) described a man whose finger was caught in a grain thresher. Because he was able to control the bleeding with a handkerchief, he delayed seeking treatment until after the work in the field was completed. The man later stated "it goes to show you that if you go to those doctors too soon, you end up with lots of unnecessary treatment and bills." This demonstrates the typical mindset of rural residents in relation to the concept of time. Time is



valuable to rural residents; another concept that must be taken into consideration when addressing the health care needs of rural communities.

The last two concepts from King's framework that are useful when working with rural clients are communication and interaction. We have already established that good communication leads to positive interactions. If the nurse is to have any influence on the health behaviors of rural residents, then s/he must be able to communicate with them effectively. This might mean speaking in layman's terms instead of using medical terminology that is confusing or ambiguous to the client. The nurse must acknowledge that rural clients may not have the same educational level as urban clients. Once the nurse has established an effective means of communicating with rural clients, s/he may be able to implement health-promoting behaviors. Good communication will result in a trusting relationship between nurse and client; an essential element for favorable interactions.

While all of King's framework may not be applicable to rural nursing theory, some of the applicable themes have been identified. Using King's Theory of Goal Attainment in the rural community presents some challenges for the nurse. Mutual goal setting would only be successful if the clients trusted that the goals would benefit them. Rural clients are not immediately receptive to newcomers in their community, which presents an obstacle for the nurse when setting goals with clients. Because rural residents are time-oriented individuals, the goals must be attainable without interfering with their daily lives, or the goals will most likely go unmet.

There are elements of King's theory that are applicable to both the emergency and to nursing practice in rural settings. Concepts from King's work are useful regardless of the context in which they are used. Human beings are dynamic individuals and they are

continuously interacting with their respective environments. King conceptualizations in the early 1960's continue to guide the practice of nursing.

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