King's Conceptual System and Theory of Goal Attainment: Past, Present, and Future

Maureen A. Frey, RN; PhD

Director of the Center of Excellence in Pediatric Nursing, Children's Hospital of Michigan, Detroit

Christina L. Sieloff, RN; PhD

Associate Professor of Nursing, Oakland University, Rochester, Michigan

Diane M. Norris, RN; PhD

Assistant Professor of Nursing, Oakland University, Rochester, Michigan

Imogene King is universally recognized as a pioneer of nursing theory development. Her interacting conceptual system for nursing and her theory of goal attainment have been included in every major nursing theory text, are taught to thousands of nursing students, form the basis of nursing education programs, and are implemented in a variety of service settings.

King's (1964, 1971) earliest published discussions of nursing as a science highlighted nursing as a profession, rather than an occupation or craft, and were closely tied to the theory

Editor's Note: Send manuscripts concerning research using nursing theories and models, new research methods, or research issues pertinent to nursing's epistemology to Violet M. Malinski, RN, PhD, Associate Professor, Hunter-Bellevue School of Nursing, Hunter College, City University of New York, 425 E. 25th St., Box 945, New York, NY 10010-2590; work phone: (212) 481-4465; fax: (212) 481-4427; E-mail: vmalinsk@hunter.cuny.edu

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development movement of the time. A unique body of scientific knowledge characterizes professions. Structure, certainty, and generalizations characterize scientific knowledge. King urged theory development to provide structure for the systematic organization and development of new knowledge for nursing. As a scientific discipline, the core body of knowledge served as the foundation for teaching and learning nursing. Accordingly, nursing belonged in higher education and required a nucleus of well-prepared scientists.

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King (1964) spoke of the need to focus on and organize existing knowledge in nursing, as well as to expand the knowledge base for nursing practice. She noted that, at that time, there were only two publications that discussed a theory for nursing (King, 1997a). In 1968, King identified the concepts of social systems, health, interpersonal relationships, and perceptions as universal to the discipline of nursing, thus representing a frame of reference for the domain of nursing (King, 1968, 1995a).

Further exploration of systems theory and operations research in the early 1970s resulted in King organizing critical concepts around individuals as personal systems, small groups as interpersonal systems, and larger social institutions, such as communities and schools, as social systems (King, 1971). Placement of concepts into each of these systems was based on the concept's primary focus, although King noted that the concepts were interrelated and could apply across systems as well.

In 1971 King published a conceptual framework for nursing organized around personal, interpersonal, and social systems. Concepts were expanded to include communication, interpersonal relationships, information, energy, social organizations, role, and status. A more formalized framework by King was published in 1981. Refinements included: (a) reformulation of the concepts of environment and person; (b) less dichotomy between health and illness; (c) revision of terminology from adaptation to adjustment; (d) use of person, human being, and/or individual, rather than man; (e) strengthening the general systems orientation; and (f) the addition of several new concepts. New concepts related to the personal system were perception, self, growth and development, body image, learning, time, personal space, and coping. Concepts related to interpersonal systems were interaction, communication, role, stress/stressors, and transactions. Concepts related to social systems were organization, authority, power, status, and decision making.

The goal of the conceptual system and the goal of nursing is health. According to King (1992), the conceptual system served to identify essential concepts for nursing as a discipline and provided the structure to: (a) derive and test middlerange theories, (b) develop nursing curriculum, and (c) implement theory-based practice.

King (1981) also introduced the theory of goal attainment, a middle-range theory derived from the conceptual system. Central concepts in the theory of goal attainment are perception, communication, interaction, transaction, self, role, growth and development, stressors/stress, time, and space. The concepts of interaction, transaction, and perception form the core of a transactions process model. Transactions are critical antecedents to goal attainment. King is one of the few theorists to generate both a conceptual system and a middle-range theory for nursing.

Although there have been few changes to the conceptual system or theory of goal attainment since 1981, King and others have provided ongoing discussion and clarification of her theoretical and philosophical positions through publications in nursing journals and presentations (Fawcett, 2000, 2001; King, 1988, 1989, 1990, 1991, 1992, 1995a, 1995b, 1996, 1997a, 1997b, 1998, 1999, 2001; Norris & Frey, 2002). Changes include addition of the concept of coping to the personal system, addition of spirituality as a basic assumption about human beings, and the request to use the term *conceptual system* rather than conceptual framework, conceptual model, or paradigm (King, 1997a). Recently, King (1999) further discussed her perspective of philosophy of science, philosophy of human beings, and the ethical underpinnings of the theory of goal attainment.

Whereas theory serves as the structure for discovering knowledge, research serves as the process for discovering knowledge. The critical role of research in nursing is inherent in all of King's discussions of nursing theory and knowledge development. In 1978, King stated, "One needs to think about nursing as a science and the relationship between theory and research as a way to build scientific knowledge" (p. 11).

Overview of Applications and Extension of the Conceptual System

During the years, journal publications and textbooks on nursing frameworks and theories have moved through several stages: analysis, evaluation, practice applications, extension, testing, and integrative reviews. Overall, King's conceptual system demonstrated a high degree of internal and external evaluation and external analysis (Fawcett, 2000; Frey, in press), an increase in clinical and research publications, and the development of several middle-range theories in addition to the theory of goal attainment, the middle-range theory derived by King herself (Fawcett, 2000; Sieloff, Frey, & Killeen, 2001).

Table 1 summarizes practice and research publications using the conceptual system and/or theory of goal attainment by knowledge building area between 1973 and 2001 (Fawcett, 2000; Sieloff et al., 2001). The publications focus on individuals as personal systems; interpersonal systems, ranging from dyads to small groups; and various social systems, including organizations and communities. The use of the conceptual system with individuals, small groups, and complex organizations was a major strength of King's conceptual system. For example, nursing administration frequently poses unique problems in terms of the direct application of nursing frameworks and theories, as it is often not considered to be nursing practice. Again, Fawcett (2000) identified that King's work demonstrated utility in this context.

Client populations indicate applicability across the life span from infants to the elderly. In addition, the conceptual system and theory of goal attainment have been used with 36 nursing specialties in 10 different cultures and in 20 different work settings. Several publications demonstrated the relevance of King's work for other areas of general interest in health care: (a) advocacy (Bramlett, Gueldner, & Sowell, 1990), (b) case management (Tritsch, 1996), (c) decision

Table 1 Knowledge Building in King's System

Content Area	Number of Publications	Years of Publication
Application of King's conceptual system	64	1978-2000
Application of theory of goal attainment	93	1983-2000
Client concerns (40 concerns identified)	65	1982-1996
Client population		
Infants	3	1991-1997
Children	13	1981-2000
Adolescents	9	1983-1998
Adults	64	1978-2000
Adults, mature	20	1982-1998
Adults, young	9	1995-2000
Healthcare beyond nursing	9	1994-1999
Client system		
Personal	48	1982-2000
Interpersonal	69	1978-2000
Social	39	1973-2001
Concept development	12	1983-1995
Instrument development	4	1988-1998
Middle-range theory developed	13	1993-2000
Multicultural applications (13 cultures)	28	1976-2000
Nursing process and related languages	12	1984-2000

making (Brooks & Thomas, 1997), (d) discharge planning, and (e) managed care (Hampton, 1994). Twelve publications represented concept development work, and 4 represented development of research instruments.

One of the strengths of King's conceptual system and theory of goal attainment is that the process of nursing has always been an integral component. According to King (1992), nursing process, a system of interrelated actions, represents method, and the theory of goal attainment, a process of human interaction, represents theory. Norris and Frey (2002) identified the language of critical thinking in an early diagram by King (Daubenmire & King, 1973) depicting a methodology for the nursing process. The application of King's work to the process of nursing has been detailed in many texts addressing nursing theory in practice (Alligood & Marriner-Tomey, 2002; Fawcett, 2000; Parker, 2001).

Although the conceptual system, like other grand-level theories, is too broad and abstract to be directly tested, it provides the basis for development of middle-range theories that can be directly tested. The development of middle-range theories by other nurse scholars is presented in Table 2. The increase in middle-range theory development in the past decade represents a major extension of King's work. Frey's (2001) multisystem theory of health and illness outcomes in youth with chronic conditions is a well-established program of research. Recently, Frey and colleagues obtained National Institutes of Health (NIH) grants to conduct randomized clinical intervention trials with youth with diabetes and human immunodeficiency virus. Additionally, Alligood and colleagues are continuing with important conceptual work that should result in testing in the near future. Killeen's (1996) work with client consumers and Sieloff's (1995) with care-

Table 2 Middle-Range Theories Derived From the Conceptual System

Theory	Author	Year
Goal attainment	King	1981
Nursing administration	King	1989
Families, children, and		
chronic illness	Frey	1989, 1995
Family health	Doornbos	1995
Health risk behavior	Du Mont	1998
Departmental power revised to		
theory of group power	Sieloff	1995, 1999
Wicks family health model	Wicks	1995, 1997
Intrapersonal perceptual awareness	Brooks and Thomas	1997
Explanatory decision making	Ehrenberger	1998
Health and social support	Fries	1998
Interaction enhancement	Meighan	1998
Personal system empathy	Alligood and May	2000
Empathy, self-awareness,	,	
and learning style	May	2000

givers and nurse administrators are nearing formal specification. Most of the middle-range theories were published in considerable detail in Frey and Sieloff (1995). That text was the first volume dedicated solely to advancement and extension of the conceptual system and theory of goal attainment.

In addition to the middle-range theories previously identified, there has been a significant increase in research guided by the conceptual system and theory of goal attainment since the mid-1980s. Fawcett (2000) identified more than 40 research publications and further identified each project as to its descriptive, correlational, or experimental design. Although early writings by King emphasized more quantitative research approaches, she acknowledged the contribution of qualitative research in discovering knowledge and supported the use of both methodologies (Fawcett, 2001). Others using King's conceptual system and theory of goal attainment use both approaches.

Factors That Limit the Contribution to Nursing Knowledge

Despite increased publications, evidence to support the credibility of King's conceptual system and the validity of the theory of goal attainment remain limited. For example, many of the practice applications of King's conceptual system and theory of goal attainment are application exercises. That is, the application did not represent an actual nursing encounter. For the most part, application exercises cannot document the process of care or patient outcomes that are essential to complete the reciprocal link between practice and nursing theory (Fawcett, 1992). Evaluation of the validity of goal attainment in relation to health cannot be accomplished without such documentation.

Although careful conceptualization of nursing practice, nursing research, nursing education, and nursing administration is critical to address the credibility of theoretical structures, this should be considered as a first step, not an end in itself. Authors who submit articles and editors who review articles should ascertain that the contribution to nursing knowledge development is clear and explicit, for example, specifying relational statements and/or plans to evaluate relational statements in practice or to test in research.

Despite the number of citations provided by Fawcett (2000) and Sieloff et al. (2001), the overall contribution to nursing knowledge is less than expected because of the small number of publications as well as their limitations in relation to the conceptual system. For example, Fawcett (2000) identified 43 master's theses and 20 doctoral dissertations using King's work. We identified an additional master's thesis and 3 doctoral dissertations completed since 2000. The review for this column, although not exhaustive, indicated that 100% of master's research and 72% of doctoral research has not yet been published. Whereas many of these may appear in the literature in time, the reality is that most will not. The lack of published data presents problems, not only to those interested in furthering nursing knowledge related to King's work but also to all nurses interested in advancing nursing knowledge in general. Efforts must be made to enable the more extensive publication of nursing research so that the research itself can be further reviewed, critiqued, and replicated, should this be warranted.

Another factor is that publication alone does not guarantee a contribution to nursing knowledge. Limitations of published research guided by nursing's conceptual frameworks in general are inadequacies in integrating the conceptual framework with the purpose of the research, linking the framework concepts to the variables of interest and their measures, and implications of the findings for the conceptual/theoretical structure (Fawcett, 2000). Fawcett referred to this integrating and linking process as developing a conceptualtheoretical-empirical structure. Others have followed a similar process called substruction (Dulock & Holzemer, 1991; McQuiston & Campell, 1997). Authors submitting research articles guided by a conceptual system could maximize their contribution to nursing knowledge by attending to guidelines such as those provided by Fawcett. When page limitations or a journal's format limit adequate discussion of the conceptual/ theoretical framework of the research, researchers should consider publishing these important pieces separately.

Although there are exceptions, few authors of practice or research publications based on King's conceptual system and/or theory of goal attainment have multiple publications. This leads one to conclude that the use of King's conceptual system often is an isolated, one-time project. Maximum extension and advancement of the conceptual system is most likely to result from strong programs of sustained research.

Into the 21st Century

King's conceptual system and theory of goal attainment are an excellent fit with current trends in nursing, for example, classification systems, evidence-based practice, and evidencebased nursing interventions. In addition, the King International Nursing Group's (KING) primary goal is to increase knowledge development for nursing based on the conceptual system and related theories. Classification systems include nursing diagnoses, interventions, and outcomes. Closely related to classification systems are minimum data set use, a common language for nursing, and computerized patient systems. The conceptual basis of classification systems is very much like King's emphasis on the importance of concepts and the use of concepts in organizing, applying, and communicating knowledge (King, 1998). Interestingly, the structure and purpose of the theory of goal attainment emphasized nursing interventions and outcomes long before the increased emphasis on interventions and outcomes by others in the 1980s. King (1981) stated, "This theory [of goal attainment], derived from the conceptual framework, organized elements of the process of nurse-client interaction that result in outcomes, that is goals attained" (p. 143). King's concept of perception is also an important link to client outcomes, because perceptions are influenced by and sensitive to nursing interventions (Johnson & Mass, 1997).

This discussion of nursing diagnosis and goals attained as outcomes of nursing care points to the need to further validate goal setting in nursing. In general, nursing lags behind other disciplines (e.g., psychology) in terms of intervention specification. Intervention specification, or fidelity, refers to how well the intervention is followed. Specification is important to examine validity issues including replication. For example, the nursing intervention classification (NIC) system (McCloskey & Bulechek, 2000) includes mutual goal setting and collaboration with patients to identify, prioritize, and plan to achieve goals as an established intervention. However, setting and achieving goals with patients could be done from several nursing theoretical perspectives or from no theoretical perspective at all. To validate King's transaction process, it is essential to identify that the process was carried out. In addition, there is nothing in the NIC intervention statement to indicate that if goals are attained, health is improved. Evidence to support the latter is critical to address the credibility of goal attainment nursing. Although several studies have been done to identify essential components of nurse-client interactions (Kameoka, 1995; King, 1981), more work is required. With additional data, goal attainment in nursing situations has the potential to become one of the few that results in evidencebased practice in nursing.

The KING, founded in 1997, has an ever-growing membership of nurse scholars interested in contributing to nursing science by advancing and extending King's conceptual system, theory of goal attainment, and related theories derived from the conceptual system. Activities of the organization focus on identifying current knowledge-building work based on King's nursing perspective, establishing programs of research related to King's theory, and increasing the visibility of deriving theories from King's conceptual system. The organi-

zation offers knowledge-development conferences, publishes the King's system update newsletter, and maintains a Web site to provide information about activities and membership.

In summary, King's contribution to nursing science is long standing and universally recognized. Her conceptual system is based on sound historical, scientific, empirical, and humanistic principles that are as salient for nursing today as they were in the 1960s. Continued work in developing and testing middle-range theories derived from the conceptual system and validating the theory of goal attainment will increase as the number of nurse scholars who work to advance and extend her perspective of nursing increases.

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