

# Implications of the life-span developmental framework for well-being in adulthood and aging

This article addresses the significance of the life-span developmental framework for nursing. Essential characteristics of the framework are defined and explained. Adult development is presented as a progressive rather than a decremental phenomenon, involving a series of "trade-offs" from one phase to the next. The role of person-environment interactions is emphasized as a major factor in the adult's well-being and approach to life's problems and conflicts, including health-related events. The life-span developmental framework is identified as consistent with nursing conceptual models on human health and development.

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ON ANY BIRTHDAY of someone over 40 years of age, one is likely to hear such well-intentioned remarks as: "Remember, you're only as old as you feel"; "You're not getting older, you're getting better!" or "Age doesn't mean a thing." Unfortunately, these clichés are usually offered to buffer the more predominant attitude on aging about "old dogs" and "new tricks." However, relatively recent shifts in thinking within the developmental sciences, including nursing, indicate that aging is a developmental not a decremental experience and that new tricks are learned throughout the entire life span.

Human health and functioning are integrally related to developmental phenomena. An understanding of the lifelong potential for development is critical to nursing interpretations of the behaviors and health needs among aging adults. The reader is challenged to derive implications from the life-span developmental frame-

work as it may relate to a particular research interest or clinical setting.

## A DEVELOPMENTAL VIEW

Aging has for too long been associated primarily with decline rather than with development. This has come about mainly from the application of biologic growth models to interpretations of adulthood. A particularistic focus on decremental changes and minimal physical maturation in adults has been inappropriately generalized in assumptions about the essential nature of the aging person. Adolescence has been regarded as the zenith of development, after which the person begins to run out of human energy and to experience overall decline. There has, however, been an upsurge of theoretic and empiric information that development is a lifelong process and can occur in the presence of obvious physical changes and deterioration commonly associated with aging.

Aging and development are not anti-thetic processes. The mechanistic view of the middle-aged and older adults as "running out of steam" is being replaced with new understandings about the human capacity for progressive development over the life span. The adult's sense of well-being is neither dependent on the consequences of early childhood events nor on the inevitable biologic experiences of aging but more significantly on the adult's increasing ability to purposefully transform the current context with all of its problems and contradictions into energy for development. This emerging life-span view of development marks a paradigm shift in the developmental disciplines.<sup>1</sup> The discipline of nursing can share fully in this turn of

events and glean from it significant implications for adult health and well-being.

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## DEFINING LIFE-SPAN DEVELOPMENT

Development refers to a pattern of changes that are regarded as positive and functional for a living system. Unlike growth, which defines a change in size of a living structure, development refers to a change in organization of the structure.<sup>2</sup> Development implies qualitative rather than quantitative change, a process of transformation rather than accretion. For example, earlier developmental phases are characterized by both growth and development, whereas in later phases, development continues but growth slows and appears to stop.

It has even been proposed that an antagonism exists between growth and development, whereby accelerated developmental change is accompanied by a slowed rate of growth.<sup>3</sup> Thus, growth is an additive process of accumulation of cells, and development is a process of increasing differentiation, ie, increasing capacity for specialized interactions with the environment.

Another essential characteristic of development is an increase in "hierarchical integration" or organization.<sup>2</sup> An increase in the specialization ability without an accompanying increase in organization would lead to disorder and inefficiency in functioning. For example, a clinical setting may contain a number of nurses who represent a large number of specialized skills. However, without a system of organization for the implementation of skills, there would be an overlap of functions, confusion, and gaps in delivery of care.

Increased levels of specialization necessitate greater levels of integration. Thus, this same clinical setting, once organized as a functioning whole, can provide a comprehensive as well as a flexible system of care.

Similarly, the nursing student who is learning a variety of specialized nursing content and is able to integrate each bit of information into a more general framework will be better able to retrieve and apply the knowledge in various contexts of practice. Thus, within any given system (eg, individual, family, or nursing staff), organization as well as differentiation is necessary for a high level of functioning. This developmental principle, incidentally, helps to elucidate Rogers<sup>4</sup> avoidance of defining health in terms of increasing complexity; complexity alone is not a desired attribute without accompanying gains in "pattern and organization" as well.

Development involves a progression from generalized to more specialized and from less organized to more integrated characteristics. Change can occur without development; increasing complexity without reorganization is one example. However, both characteristics are needed for developmental change.

### Life span as a qualifier

*Life span* has been used to emphasize a different and broadened orientation to human development.<sup>5</sup> The life-span focus is not limited to theories that designate a particular maturational state as an end product of development, ie, achievement of physical maturity in adolescence.

The life-span qualifier indicates that development occurs throughout life, including dying, and that no particular

phase assumes primacy over another. Moreover, this orientation encompasses different forms of development, ie, phylogenetic (development of a species), anthropogenetic (development of a culture), ontogenetic (individual development), and microgenetic (developmental changes that occur within a matter of hours or during a significant life event such as a health crisis). Assessment of developmental factors in an individual, then, should acknowledge the influence of developmental changes occurring on a societal or cultural level.

The life-span approach de-emphasizes the dichotomizing between context and individual, heredity and environment. The focus is not on the degree to which each separate factor influences development but on how their interaction effects change.

Within the life-span sciences, there has been a shift away from both the "organismic" paradigm, which emphasizes the individual, and the "mechanistic" paradigm, which focuses on the mechanized reactions of the person to the environment. The new, emerging paradigm—the "contextual-dialectic"<sup>1</sup>—addresses developmental progression in terms of the interaction between organismic and environmental factors, including particularly those interactions that create conflict. Energy for development is generated from conflicts resulting from person-environment interactions.<sup>6</sup> An absence of certain interactional experiences could seriously limit a source of energy for development.

The contextual-dialectic framework implies that nursing intervention with a broad, contextual focus can facilitate adults' well-being during conflict-producing events, including disease, life crises, aging, disability, and dying. Thus, health

promotion includes an understanding of how individuals or families integrate the lack of synchrony ("desynchrony") that inevitably occurs between people and the physical, social, or cultural aspects of their environment.

### PERSON-ENVIRONMENT INTERACTIONS AND ADULT WELL-BEING

The emphasis placed on the contextual dimension by the life-span developmentalists is consistent with Rogers' postulations<sup>4,7</sup> about the significance of person-environment interactions for nursing. The maturational processes so evident in early life are secondary to contextual influences on development in adulthood. As people

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age, meaningful interactions with their environment become increasingly important for the realization of human potential.<sup>8</sup> Developmental theorists provide some insight into the ways by which adults interact with the environment and integrate some of the desynchronies of life. The following observations may be applied in a variety of nursing activities designed to facilitate the well-being of adult clients.

#### Prigogine's discovery

The second law of thermodynamics states that it is the nature of physical

systems to become increasingly entropic over time, ie, to decrease in energy and organization. However, biologic systems change by increasing their levels of energy and organization<sup>2</sup> ("negentropy"). A chemist named Prigogine worked to solve this paradox between the second law of thermodynamics and biologic development and won a Nobel prize for his discovery in 1977. His findings support the significance of person-environment interactions in adulthood and aging.

Prigogine<sup>9</sup> demonstrated that both physical and biologic systems can be negentropic but only at the expense of the system's local environment. People, in their movement toward increasing specialization and organization, ingest "higher order" forms of energy or information and excrete "lower" or less organized forms, such as nuclear waste, into the environment.<sup>10</sup> The local surroundings of a person become depleted of their resources during development. As a result, people not only become increasingly able to broaden their range of environmental interactions but must do so for continued survival.

As development progresses, the context becomes ever more vital to the individual's well-being. Aged persons, in particular, may be more sensitive to changes in their environment. Phenomena of person-environment interactions may, from necessity, be more apparent among those at later stages of development. In view of this, future nursing research in adulthood and aging might address some of the measurable differences in person-environment interactions across developmental levels and how these differences function to influence well-being among the developmental groups.

22 **Differentiation from the environment**

It is generally assumed that adults, because of their higher developmental level, are more differentiated from their context and have established a clearer sense of identity than those of a lower developmental level. Increased differentiation gives a clearer perception of self and others that is not bound by limitations of the immediate context.

The adult is, therefore, better equipped to engage in more complex and meaningful interactions with others. Conceptual as well as contextual resources are used in decision making. Schaie,<sup>11</sup> for example, proposes a model of adult development that identifies the adult's "executive" approach to solving problems. Executive skills include the ability to conceptualize the overall problem and delegate less complex details to the less experienced individuals. Older adults are more selective in the use of their energy.

**Contextual awareness**

Adults approach problems with a greater awareness of and concern for the context surrounding the problem than do younger persons. They have developed the ability to address difficulties from a broadened perspective that incorporates the immediate details as well as the future consequences of the event. Solutions to problems in adulthood are typically based on thinking that is less egocentric, absolutist, and idealistic than that of adolescents and young adults, and is instead more pragmatic and accepting of the relativity in life experiences.<sup>11-14</sup> It is significant that adults are increasingly capable of transforming contradictory or conflict situations into meaningful experiences.<sup>13,15,16</sup> The "prob-

lem-solving" ability achieved in late adolescence is transformed into a "problem-finding" ability in adulthood.<sup>17</sup>

**Making experiences**

It is characteristic of adults to purposefully use their environment for learning. During the course of development, individuals become increasingly able to learn from experience, ie, to impose meaning on their experiences and integrate them in a way that enhances personal development and well-being.<sup>8</sup> Adults are less inclined to sit back and "have" experiences; they are more likely to "make" their experiences.<sup>17</sup>

The adult's enhanced ability to learn from experience does not limit perceptions of reality to the immediate context, however. Adults' perceptions of themselves and their environment involve more abstract thinking and symbolization and are less reliant on concrete sensations or physical manipulations of the environment.<sup>13,18,19</sup> For example, older adults evaluate their situations more in terms of the "whys" of the event, rather than the "whats" and the "hows." Why something happens tends to be more important to older adults than is an understanding of the details of the process of the event. This has relevance for nursing interactions with adults and the aged regarding stressful life events. These individuals may need assistance in exploring and identifying the personal meaning of an event more than a detailed description of the particulars of the surgical procedure, eg.

**TRADE-OFFS IN DEVELOPMENT**

In spite of some of these unique qualities of adulthood, development must not be

construed as a linear process whereby one becomes "better and better" in some ability. Rather, development entails a progression of trade-offs by which certain lower level abilities are superordinated by higher level modes.<sup>8</sup>

The intellectual dexterity of youth gives way to the wisdom of later adulthood. The older person may trade away some ability to recall specific details of a situation but is, because of this loss, better able to view the situation in abstract terms and to derive meaning from it. A degree of flexibility is also replaced with a sense of stability among the aged. Thus, the cautiousness or unwillingness to accept change, often interpreted as rigidity, may instead be regarded as developmentally appropriate for both the individual and environment; the elderly are viewed as a stabilizing force within society and as providing a secure social context within which younger persons are free to exercise flexibility in taking risks and to contribute new information and goods for society.<sup>20</sup>

Development, then, as a nonlinear process indicates two basic characteristics.

1. There are qualitative differences between each developmental level; each level is not better or worse than another but instead represents the most productive patterning for the given stage. Individuals do not become better with age but rather trade away old behavior patterns for those more useful.
2. The developmental process is irreversible; individuals cannot revert to previous patterns of perceiving the world.

The elderly nursing home patient, for example, cannot be addressed as a regressed adult, child, or infant. He or she

is more accurately regarded as an experienced adult, integrally related to the surrounding health care environment in attempts to overcome physical limitation, loneliness, or whatever conflicts are presented. The behaviors and health needs of

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patients of different developmental levels cannot be assessed by the same criteria. The life-span developmental framework outlines some of the unique characteristics of adulthood that nurses can use to guide assessment and intervention with adults.

## NURSING MODELS AND DEVELOPMENT

Nursing conceptual models support the significance of developmental phenomena in adult health and functioning. Rogers'<sup>4,7</sup> conceptual system posits a life-span view of persons. Specifically, her principle of "helicy" depicts aging as a continuously innovative process directed toward increasing diversity of field pattern and organization. Rogers indicates the need for major changes in attitudes and nursing practices concerning aging adults that would account for greater variability and organization.

Parse's<sup>21</sup> theory of nursing, derived from Rogers' model,<sup>4</sup> incorporates life-span ideas in the major assumptions about the nature of health. These assumptions portray health as a process of development toward greater complexity and diversity;

indicators of health can be derived from the three principles of Parse's theory that reflect developmental concepts. These indicators of health include the ability to

- differentiate oneself from others and to achieve identity;
- integrate unfamiliar experiences into the familiar;
- use abstractions and symbols in imposing meaning on life events; and
- transform current views in a way that opens alternative and more useful ways of thinking and acting.

Finally, Newman's theoretic framework on health reflects, as one of its major propositions, a developmentalist definition of health, "the expansion of consciousness."<sup>22(p58)</sup> Newman describes consciousness as related to developmental levels; the index or degree of consciousness increases with age. It may be derived from this framework, then, that the capacity for health experiences during the lifetime can be explained, at least in part, in reference to developmental principles.

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The life-span developmental framework lends support to nursing's regard for the ever-present human potential for well-being and emphasis on a holistic view of human functioning. The developmental framework implies that energy for adult development can derive from the health care problems of patients that are presented to nurses daily.

In addition, the life-span framework

identifies person-environment interactions as becoming increasingly important over development and, in so doing, impels nurses to address health issues of aging adults from a broader contextual perspective. Because of the proximity to patients and their environments, nurses are in a strategic position to enhance adult development and well-being.

How nursing defines such developmental concepts as differentiation, complexity, organization, and energy will affect nursing's capacity to promote healing and health across the life-span. Nurses are challenged to reinterpret decremental changes among aging adults as potential developmental processes or trade-offs for more useful modes of functioning. Interpretations of the behavior and health needs of older persons must be based on developmentally appropriate criteria; otherwise, the assessment may not be valid. Definitions of adult health in terms of physical strength and energy, the swiftness with which self-care tasks are performed, or the ability to recall details of health care teachings may deter assessment of other more appropriate, although perhaps more elusive, health resources that emerge in later development.

Nursing approaches to explaining and facilitating well-being in adulthood and aging must account for the ongoing processes of development. Closer inspection of developmental phenomena may prove to be highly useful in nursing's exploration of the concept of health across the life span.

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