An Overview of the Need-Driven Dementia-Compromised Behavior Model

Everyday, 4 million Americans and their caregivers are confronted with the challenge of living with irreversible cognitive losses and their sequelae. The long and tumultuous journey through a dementing illness is punctuated by a gradual loss of cognitive abilities that often are replaced with poorly understood behaviors. Physical aggression, wandering, and problematic vocalizations are behaviors that accompany the mid to late stages of dementia and are viewed as offensive and frightening by those around the cognitively impaired individuals. Not surprisingly, great pressure is brought to bear on health care professionals to “do something” to control these behaviors. Unfortunately, many of the currently available interventions either erode what remains of the cognitively impaired individuals’ functional abilities or, at best, are too global to be effective for specific problems. Quality-of-life issues are at the core of the development of humane and effective care for individuals with dementia.

For a number of years, the nurse researchers whose articles appear in this special issue of the *Journal of Gerontological Nursing* have worked individually and collaboratively to build a framework to study and understand the constellation of behaviors that previously have been identified as “disturbing.” The Need-Driven Dementia-Compromised Behavior (NDB) Model changes the prevalent view of dementia-related behaviors as “disruptive” or “disturbing” to a perspective that conceptualizes these behaviors as potentially understandable needs that, if responded to appropriately, will enhance quality of life. In the model, depicted in the Figure, dementia-compromised behaviors reflect the interaction of relatively stable individual characteristics (background factors) and more changeable environmental triggers (proximal factors) that precipitate the behaviors. This interplay produces NDB, which is the most integrated and meaningful response cognitively impaired individuals can make, given the limitations imposed by the dementing illness, the strengths preserved from their abilities and personality, and the constraints, challenges, or supports offered by the immediate

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environment. Rather than “disruptive,” these behaviors are perceived as meaningful and useful in directing nursing care.

Specific background and proximal factors which are operative across all dementia-related behaviors were identified through clinical experiences and an extensive integrated literature review. A more detailed review has been published elsewhere (Algase et al., 1996). Briefly, background factors are those characteristics that shape the more enduring patterns of behavior. For example, physical aggression may result from damage to regions of the central nervous system that, in turn, give rise to an inability to inhibit behavior independent of environmental influences (dementia-compromised functions) (Lhermitte, 1986). Physical aggression also may be an accentuation of cognitively impaired individuals’ premorbid pattern of coping with stress (psychosocial variables) (Kolanowski, Strand, & Whall, 1997) or other factors such as gender role identity (demographic variables) or general health status (Jackson et al., 1989).

Together, background factors form a risk profile for individuals with dementia.

Proximal factors are those that induce a need state and precipitate dementia-related behaviors, given the context of risk-producing background factors. Screaming may result from pain (physiological need state) (Cohen-Mansfield, Marx, & Rosenthal, 1989) or from fear, anxiety, or depression (psychosocial need state) (Schwab, Rader, & Doan, 1985). Clinical observations indicate that noise (physical environment) and high levels of activity in confined spaces (social environment)
often increase wandering. Precise nursing interventions for dementia-related behaviors are developed by isolating proximal factors that are clearly associated with the behavior and manipulating them in a way that considers the individuals’ preferred method of meeting need states. Often the best approach can be gleaned from background factors. For example, an individual who wanders because they have used physical activity as a life-long method of coping with anxiety may benefit from a structured exercise program.

The NDB Model focuses on human needs as the basis for interventions. However, little empirical work supports this approach for individuals with dementia. In fact, the Nursing Interventions Classification lists only one intervention addressing dementia management (McCloskey & Bulechek, 1996). The articles in this special issue report on beginning research efforts to validate and refine the NDB Model and were presented as a symposium at the 50th Annual Scientific Sessions of the Gerontological Society of America. They include a review of different wandering patterns, their etiology, and goals for intervention (“Wandering: A Dementia-Compromised Behavior” by Algase); a study of factors related to the occurrence of problematic vocalizations (“Problematic Vocalizations in Institutionalized Individuals With Dementia” by Beck and Vogelpohl); a discussion of passive behaviors (“Passive Behavior In Dementia: Clinical Application of the Need-Driven Dementia-Compromised Behavior Model” by Colling); a methodological article on measuring dementia-related behavior (“The Measurement of Need-Driven Dementia-Compromised Behavior: Achieving Higher Levels of Interrater Reliability” by Whall); and a critique and discussion of the model itself (“Some Musings of an Aging Researcher” by Burgio).

The care of cognitively impaired individuals who display dementia-related behaviors is a serious issue that demands development of empirically based interventions. Instead of a pervasive sense of despair that often characterizes long-term care, research-based interventions offer hope for effective and humane care for individuals with dementia. It is the belief of this collaborative group of nurse researchers that the residual strengths of individuals with dementia, identified as background factors, coupled with environmental supports, identified as proximal factors, offer a foundation for enhanced quality of life when responding to individual needs.

REFERENCES

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