

# **Trajectories and Transferability: Building Nursing Knowledge about Chronicity**

**Sharon Ogden Burke**

We have seen a shift in the generation of nursing knowledge, from biomedical, illness, and disease models (exemplified by "a diabetic patient") to psychosocial, educational models (exemplified by "a person with diabetes" or, more broadly, "a person with a chronic condition"). Behind this shift is a generic view of chronicity, one which posits that the psychosocial issues shared by individuals across hundreds of medical diagnostic groups outweigh those that are unique and biomedically based (Perrin et al., 1993). The psychosocial model recognizes the importance of the *effect* of the condition on the individual, as opposed to the condition alone. For example, it is from this generic perspective that Magyary and Brandt (1996) view children and their families as they cope with chronic conditions.

The shift to generic views of chronicity has not been absolute. Nearly all nursing researchers sensibly still report the disease categorizations of their subjects, while at the same time designing their research and discussing their findings with a view to generalizing to a broader population of persons with similar chronic conditions. This approach assumes that a generic view might be too simplistic and that abandonment of the medical categorizations might be premature. Generalizing about chronicity issues might be well served by the more multidimensional concept of illness trajectory. For example, Ellerton, Stewart, Ritchie, and Hirth (1996) studied children with three types of medical diagnoses in order to sample a range of illness trajectories.

The concept of chronic illness trajectory includes notions of direction of the short- and long-term course, the relative stability, and the degree of uncertainty about the course of the condition. Various groupings of trajectories that have been proposed include progressive, constant, relapsing, and episodic (Rolland, 1987; White & Lubkin, 1995; Wong, 1993).

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Two promising outcomes for knowledge development in nursing are implicit in the trajectory concept. First, trajectories could provide a way of grouping myriad chronic conditions into a smaller set of trajectories. Thus we would not need to replicate the same study with every possible medical diagnostic population before using descriptive findings with persons with similar trajectories. Hernandez's (1996) research concerned persons with diabetes; one wonders if her findings might have relevance for persons with similar trajectories — for example, those with renal disease.

The second implicit advantage for knowledge development is that similar trajectories might have common sets of nursing diagnoses and interventions. This is an attractive notion: experimental research with a group of persons with one medical diagnosis could have relevance for persons with other diagnoses, to the extent that they have similar trajectories.

However, researchers and evidence-based practitioners of nursing have been hesitant to make such leaps of logic for fear of overgeneralizing, influenced as we are by the logical positivist's view of such generalizing across medical diagnoses. When rigidly applied to research with persons with chronic conditions, direct clinical applicability of findings would be possible only after experimental research demonstrated cause-effect relationships in randomly selected samples from defined populations. Few can accept such a limited view. Furthermore, the logistics, time, and expense of replication of every study with persons in hundreds of other diagnostic groups would be daunting. More seriously, exclusive use of this approach would bias and limit knowledge generation, by restricting study to medical diagnostic groups that are sufficiently large in numbers. Sampling protocols based on logical positivist principles tend to exclude persons with less common medical diagnoses and persons with multiple problems, such as those with associated mental-health or learning problems. This creates a new generalizability issue, because the true population of persons with chronic conditions can never be sampled with strict adherence to this view.

An alternative concept to the logical positivist's generalizability construct is Lincoln and Guba's (1985) transferability. Transferability of research findings to clinical practice is judged by the user of the findings based on the fit of the sample and the findings to the practitioner's clients. Using the yardstick of transferability rather than generalizability as a guide, trajectories of chronic illnesses offer even more promise for knowledge generation.

It is tantalizing to imagine that transfer of research-based nursing knowledge might be possible across persons with similar trajectories but dissimilar medical diagnoses. So why has trajectory not replaced medical diagnosis in identifying populations for our nursing research? I suspect the answer lies, to a great extent, in how we recruit subjects within a biomedically oriented system.

Beyond the logistics of recruitment, there are still caveats to the transferability of research findings across medical diagnoses, but within trajectories. Age, stage or phase of the illness, and the nature of current stresses and tasks are factors that are apt to impinge on the applicability of the construct of transferability.

The age and developmental stage of the person with a chronic condition, and probably that of their family caregiver, can be expected to influence or override the notion of trajectory. It is not logical to extend the notion of trajectory to very young children or to others who cannot project into the future. At times, a parent's notions of their child's trajectories might be more relevant than those of the child.

It would be logical to hypothesize that the client's view of their condition's trajectory is most salient for nursing research when their current tasks or stresses are of a psychosocial nature. Nursing diagnoses that are predominantly psychosocial in content might be more apt to cluster under illness trajectories than nursing diagnoses that are pathophysiologically based. It would follow that a trajectory framework might be most suitable to nursing interventions that involve psychosocial support.

During acute phases — to the extent that the pathophysiological issues are paramount — an illness trajectory framework might not be as salient for our research or practice. Trajectories might not come into play during the course of initial diagnosis or acute exacerbations, for two reasons. First, pathophysiological issues are paramount. Second, trajectory is a cognitive construct that takes a person time to develop and bring into play. Thus in the early phases of a person's awareness of having a chronic condition, such as learning of the diagnosis and learning about treatment, biomedical frameworks might be in the forefront. However, as soon as the "long haul" (Rolland, 1987) of coping with the condition becomes the primary issue, trajectories may become relevant.

Our conceptual frameworks on death and dying could be viewed as a phase in chronic illness trajectories, although they have not traditionally been seen as such. In the context of a person's trajectory, the

final phases of illness are very well described compared with the long haul of coping with a chronic condition.

The next steps in building nursing knowledge about chronicity include synthesizing reviews of completed research, definitions, and measures of trajectories, and then using the concept of trajectories to inform subject selection. I suspect that common themes could be teased out of existing research through systematic reviews and synthesis of findings concerning persons with similar illness trajectories. Such systematic reviews will be hampered by a lack of information on the subjects' trajectories and will speculate, primarily informed by the medical diagnoses provided in the descriptions of subjects, in identifying types of trajectories.

As a result, a common recommendation in such reviews might be a call for operational definitions and measures of trajectory. Definition has already begun in the works referenced below. However, measurement for research and clinical uses is in its infancy and not likely to be well developed for some time.

In the meantime, the development of knowledge about chronicity would be enhanced if researchers considered trajectories in their sampling designs. Trajectory information could be included in descriptions of intake protocols, measures, findings, and discussions in research reports.

Early work on trajectories viewed them primarily from a professional, biomedical perspective. Later work has taken the perspective of the individual and the caregiver, in which psychosocial issues come to the fore. Other work on professional-client relationships has found that these two perspectives differ. This suggests that descriptions of subjects could include illness trajectories from more than one perspective — from those of the individual, the caregivers or other family members, or the health-care professionals. How often do researchers ask their subjects to give their views on the course of their condition or trajectory? I suspect we will be in for some surprises.

The concepts of trajectory and transferability hold promise for the enhancement of nursing knowledge about chronicity. I eagerly await the next generation of chronicity research.

## References

- Ellerton, M., Stewart, M.J., Ritchie, J.A., & Hirth, A.M. (1996). Social support in children with a chronic condition. *Canadian Journal of Nursing Research*, 28(4), 15-36.

- Hernandez, C.A. (1996). Integration: The experience of living with insulin dependent (type 1) diabetes mellitus. *Canadian Journal of Nursing Research*, 28(4), 37-56.
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Magyary, D., & Brandt, P. (1996). A school-based self-management program for youth with chronic health conditions and their parents. *Canadian Journal of Nursing Research*, 28(4), 57-77.
- Perrin, E.C., Newacheck, P., Pless, B., Drotar, D., Gortmaker, S.L., Leventhal, J., Perrin, J.M., Stein, R.E.K., Walker, D.K., & Walker, M. (1993). Issues involved in the definition and classification of chronic health conditions. *Pediatrics*, 91(4), 787-793.
- Rolland, J.S. (1987). Chronic illness and the family: An overview. In L.M. Wright & M. Leahey, *Families and chronic illness* (pp. 33-54). Springhouse, PA: Springhouse Corporation.
- White, N., & Lubkin, I.M. (1995). Illness trajectory. In I.M. Lubkin (Ed.), *Chronic illness: Impacts and interventions* (pp. 51-73). Boston: Jones & Bartlett.
- Wong, P. (1993). *The chronic illness trajectory framework*. New York: Springer.