Family Practice Forum

Longitudinal Norms in Family Medicine Research

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The discipline of family medicine has the potential to make important and unique contributions to medical knowledge. Family medicine advocates continuity of care, a concept that has important normative-empirical implications in addition to the clinically and economically beneficial implications stressed by many authors. Family medicine as a discipline is, relative to other medical specialties, an inclusive discipline; that is, it includes patients of both sexes, all ages, all types of illness, and a focus on normality through the life cycle of the family.

It is the inclusive characteristic of family medicine that makes it possible for the discipline to develop diverse normative data. Specifically, the continuity of care commitment suggests that *time* be treated as the independent variable in order to generate three different types of longitudinal norms.

Clinical inferences often rely on comparisons of a particular case with a norm. These normative data are most often based on cross-sectional studies of samples presumed to be representative of the population being studied. In cross-sectional studies the individual is compared with a group norm without reference to time.

In contrast, the continuity of care commitment makes possible complementary normative data, obtained from repeated measures of a particular event over a period of time. Normative data based on longitudinal studies, the study of change over time for any biological, psychological, or social-familial event, while not the sole province of family medicine, are most easily facilitated in this field.

Three types of longitudinal norms could be developed. First, longitudinal norms may be based on following a large number of randomly selected individuals over the life cycle. Such longitudinal norms allow one to compare a particular individual with a group over extended periods of time. These comparisons may be made for any single or multiple measure, irrespective of whether the measure(s) refer(s) to a biological, psychological, or a sociocultural event(s).

For example, the long-term implications of experiencing a loss of a family member could be studied across generations. More specifically, the impact of this loss could be studied for individuals in different positions with respect to number of losses previously suffered, sequence of losses, and developmental phase at the time each loss occurred. When a woman has experienced one or more losses as a child, how is her parenting of her own children affected? What implication might these losses have as she grows older?

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The second possible longitudinal norm differs from the first in terms of the special referent group with which the individual is now compared. The first set of norms compares the individual with a large number of presumably randomly selected individuals. The second set of norms relies on comparisons between one member with other members of the same biological unit, namely, the family; that is, the longitudinal measures for an individual are compared with his or her own biological family unit over time. Again, these comparisons between an individual and his or her own family may be made for any single or multiple phenomena irrespective of whether the event being examined is a biological, psychological, or social phenomenon.

The third type of longitudinal norm compares the person with himself; that is, base rates are established for the individual over long periods of time. These base rates then allow one to determine whether the individual is demonstrating variabilities from his own base. Thus, it would be possible for a person to be judged, for any given measure, as within normal limits if the referent group is the usual cross-sectionally based norm. Simultaneously, however, a clinician relying on such normative evidence might be concerned because this finding shows a departure from that patient's own base rates.

The inclusive character of family medicine makes it possible to gather biospychosocial data, necessary to such empirical-normative studies, as part of a family physician's regular clinical practice. Such data could be systematized into the three described longitudinal norms. These norms would not only benefit family medicine; they would also constitute a contribution to medical knowledge.

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