

DECOMPOSING THE EFFECTS OF MARITAL TRAJECTORIES ON HEALTH:
A DISCRETE-TIME ANALYSIS OF TRANSITIONS, DURATION, SEQUENCING AND TIMING ACROSS THE
LIFE COURSE*

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Prior research consistently demonstrates that marital status is associated with numerous physical and psychological health outcomes in most national and community based studies (Aseltine and Kessler 1993; House, Landis and Umberson 1988; Ross, Mirowsky and Goldsteen 1990; Waite 1995). For instance, married persons are shown to have lower rates of chronic illness and physical disability (Pienta, Hayward and Jenkins; Verbrugge 1979), reduced mortality rates (Gove 1973; Rogers 1995), and higher levels of psychological well-being measured across various dimensions (Gove, Style and Hughes 1990; Marks and Lambert 1998; Peters and Liefbroer 1997). Although some studies suggest that this relationship is not entirely causal, but rather due to selection effects (Lillard and Panis 1996; Mastekaasa 1992), the majority of existing research seems to support the argument that marriage is indeed a protective social status. Yet, despite the breadth of research on marriage and health, only recently have attempts been made to understand how this relationship develops over the life course.

Over the past two decades the life course paradigm has gained notable momentum in many disciplines, and consequently, has played an increasing role in how research addresses relationships that may vary over personal and/or historic time (Elder 1985, Giele and Elder 1998; George 1993; Hagestad 1990). Central to a life course perspective is an emphasis on individual biographies that capture particular experiences, or “trajectories,” that reflect long-term patterns of stability (i.e. duration) and change (i.e. transitions) in a particular status (George 1999). Given this, it is only fitting that recent studies on the health effects of marital status have begun to incorporate life course

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perspectives that focus on marital histories, or trajectories, as the preferred framework in which to study this relationship. However, at present, a significant challenge facing this line of work is bridging the theoretical concept of a marital trajectory with the measurement of the components of this construct – transitions, duration, sequencing, and timing – with available longitudinal data.

A review of the literature reveals that attempts to examine marital status within a life course framework have made steady progress over the last decade. For example, it has been shown that *transitions* out of marriage can have negative implications on the physical and emotional health of individuals (Marks and Lambert 1998; Hemström 1996; Wu and Hart 2002; Zick and Smith 1991). In addition, studies show that the *duration* of marriage, as well as time spent outside of marriage, also can have significant effects across a broad spectrum of physical and mental health outcomes (Pienta et al. 2000; Thierry 2000). Yet, only a few existing studies could be found that investigate a combination of these factors concurrently (e.g. Barrett 2000; Lillard and Waite 1995), and among them, all appear to be largely constrained to analyzing marital typologies (i.e. retrospective status summaries) together with duration spent in current status. Although these studies are a marked improvement over other life course approaches, we are unaware of any study that has modeled the separate components of long-term marital trajectories dynamically with age.

The present study uses both retrospective and prospective data from 5 waves of the Health and Retirement Survey (HRS) to exploit the use of time-varying measures in event history analyses to simultaneously model the effects of complete marital histories on chronic disease and mortality over the span of roughly 60 years. In doing so, we reconstruct all age-specific marital statuses across the entire life course of the HRS cohort prior to death or right-censorship by the 5th wave of data collection (2000). Using discrete-time hazard models -- specifically with time-varying indicators of marital status at every age -- allow us to directly analyze the independent and interactive effects of marital transitions, durations, sequencing and timing (i.e. marital trajectories)

that vary over the life course. Unlike prior research, this approach not only maximizes the information provided in marital history survey data, but also offers a flexible alternative in measurement that allows comparisons that previously have been unfeasible. For example, the duration spent in any given status will accumulate with age as one's exposure to the respective marital state will increase with time. Most studies simply sum the total years an individual spends in a particular status, typically relying on most current status. Alternatively, our approach does not summarize life course experiences by way of completed marital typologies or transition counts, but instead allows the marital trajectory to change dynamically with age.

In the current study, we anticipate that chronic disease incidence and mortality will be affected most by the duration-time (i.e. exposure) an individual accumulates in a given marital state across the life course, with marriage exposure as the major determinant. However, this relationship will largely depend on the number of marital transitions that define whether a person is continuously married or experiences numerous movements in/out of marriage during this period. Furthermore, we believe that the sequencing of marital transitions will have a marginal effect on our outcome since this measure is highly correlated with age (e.g. transitions from unmarried to married occur at younger ages, while changing from married to widowed status occurs mostly in later life) and may likely add little to our understanding of health decline with age. Finally, we suspect that the timing of transitions into and out of marriage will have a modest effect on both becoming ill and dying, but once duration is taken into account we anticipate that the main effect of timing will largely be explained by one's opportunity to acquire exposure in any particular marital state. We conclude with a discussion of the potential implications of these findings on future research of marital trajectories and life course measurements in general.

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