The Effect of Life Transitions on Suicide in the Elderly

Brenda Ohta
Leah Rohlfsen
Program in Sociology
School of Social and Family Dynamics
Box 873701
Arizona State University
Tempe, AZ 85287-3701

Analyses of suicide trends in the U.S. consistently reveal that, in comparison to the general population, rates among the elderly are disproportionately high. Previous research has identified factors associated with older adult suicide to include gender, race, religious activities, and social isolation (Hoxey & Shah, 2000; Meehan, et.al., 1990; Nisbet, et.al., 2000). According to Durkheim (1951 trans), the nature of suicide is dominantly social, not individual. Central to the social causation of suicide, therefore, is the role of social integration and social regulation. Life events such as the death of a loved one or changes in social roles, such as through unemployment, retirement, divorce, or widowhood, have clearly been demonstrated to contribute to older adult suicide (Kposowa, 2001; Kposowa, 2000; Charlton, 1995). Throughout the life course, both employment, economic status, and marital status have been associated with the risk for suicide (Kposowa, 1999; 2001). Research findings reveal that the lower the socioeconomic status, the higher the risk of suicide (Kposowa, 2001). Further, individuals, especially men, who are widowed or single, are 1.9 to 2.8 times more likely to commit suicide than are married individuals (Smith & Mercy, 1988).

Much of the current research literature tends to evaluate the elderly as one homogeneous group, that is, all individuals who are 65 and older. However, this particular group can vary in age by up to 30 years or more (e.g., from age 65 to 95+), necessitating the need for a closer examination of the effect of age in conjunction with life course events and socioeconomic factors on the risk of suicide. The purpose of the proposed study, therefore, is to determine more precisely those social determinants and life course transitions that may contribute to the tendency toward suicide among different age subgroups, and consequently different cohorts, of older adults.

Several research hypotheses are posed. First, older cohorts of elderly will experience a lower risk of death by suicide than younger cohorts of elderly. Second,

consistent with previous research findings, males will demonstrate a greater tendency toward suicide than will females. Finally, life course transitions, such as retirement and widowhood, will be positively associated with suicide risk, therefore, the greatest risk will be demonstrated by the 65-74 age group due to the commonality of retirement within this group.

Data and Methods

In an effort to explore social determinants of suicide in older adults, this study utilizes data from the National Longitudinal Mortality Study (NLMS); 1979 to 1989. The NLMS is a dataset compiled from records from the Current Population Surveys of the U.S. Bureau of the Census that are merged with the National Death Index.

The probability of suicide on the population at risk will be assessed by a multinomial logistic analysis which will regress risk of death by suicide, death by other causes, and survival, on age and gender. This analysis will be conducted on the total number of cases that are age 55 and older (n=129,751). In addition, a bivariate logistic regression analysis will be employed to assess the risk of suicide versus other causes of death within the sample of all deceased cases age 55 and older (n=34,709). For the bivariate analysis, five hierarchical models are estimated. Model one regresses cause of death on age. Model two regresses cause of death on age and gender. In model three, marital status was added to age and gender. In the fourth model age, gender, and marital status, as well as employment status are assessed.

Finally, the timing of the transition of retirement and widowhood events in relation to the act of suicide requires a statistical approach sensitive to the temporal nature of these events in relation to the act of suicide. Thus, an event history analysis will be employed for further delineation of the possible relationship among these variables.

Preliminary Findings

Results of the multinomial regression analysis for the population at risk of suicide demonstrate a 42% increase in risk of suicide for ages 65-74, a 94% increase in risk for ages 75-84, and a 180% increase in risk of suicide in comparison to individuals in the 55-64 age group. However, bivariate regression analysis for odds of death by suicide in the elderly population within this sample reveals that older cohorts of elderly experienced a lower risk of death by suicide as opposed to death by all other causes than younger cohorts of elderly. While the odds significantly increased for age groups 65-74 (by 8.36) and 75-84 (by 4.52) in terms of death by suicide, age group 85+ demonstrated *no* significantly different odds for death by suicide in comparison to the younger reference group of 55-64 year olds. This lends support to the possible protective effect against suicide for those individuals surviving to advanced old age, as well as the existence of heterogeneity among the 65+ population. Further, in contrast to previous research findings, being female significantly increased the odds for death by suicide by 129%. Lastly, while the risk of suicide was greatest among the 65-74 year olds, there was no support for an increased risk due to marital or work status changes.

Additional models, which included race and education, as well as interaction effects for marital status and age, work status and age, and between gender and marital status, and gender and work status were also estimated, but not found to be statistically significant.

While these preliminary findings provide merit, further analysis and revision are needed. The researchers' plans include employing an event history approach to more accurately assess the relationship between suicide and life course transitions in later adulthood. Specifically, the timing between the transitions of retirement and widowhood in relation to cause of death by suicide will be explored.

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