Income Adequacy and Depression in Older Adults

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Objective

Depression is the second leading cause of disability worldwide, where one in seven older adults meet the criteria for depression. Hybels and Blazer (2003) found that the rates of depressive symptomatology vary in old age, often depending on whether the older adult lives in the community (3%-26%) or in a nursing home (16%-30%) Depressive symptomatology is a debilitating disease that can become severe without the appropriate treatment. Despite the availability of effective treatments, many older adults lack access to adequate resources (Charney, et al, 2003). There is limited research about older adults with mild depression, who do not meet diagnostic criteria but also experience a reduced quality of life.[4] Because mild depression is a risk factor for more severe depressive illness, additional research is needed to address potential preventative approaches to depression so that the risk for more severe depressive illness is minimized.

Psychosocial adversities, such as low economic status, poor physical health, disability, social isolation, stress, and involuntary relocation often lead to a depressed mood or can trigger more severe depressive syndromes than previously experienced. Among the many factors affecting depression, financial stress in older adults has not been studied extensively. Yet, financial insecurity is a major issue facing older Americans. The stress of health care expenditures, housing, food, and extraneous costs can be challenging. Chronic struggles from inadequate financial resources may foster a sense of insecurity and hopelessness, threatening one's psychological health. To treat diminished psychological health, medications are often the first choice of treatment among physicians. Yet, malleable psychosocial factors that can impact psychological health positively should be considered as an intervention to treat mild depression.

While a large body of research has assessed the effects of locus of control (LOC) against physical health outcomes, little research has focused on the importance of LOC and domain- specific control as it relates to mental health outcomes in mid-life and older age. More specifically, LOC and domain-specific control over health and financial circumstances, as separate and distinct measures affecting depression, has not been studied. In this study we investigate the interrelationships of income adequacy, three distinct measures of LOC, and depressive symptomatology by assessing the respondents at two points in time.

Consequently, the aims of this study are twofold. First, we examine the general effects of income adequacy on depressive symptomatology. Secondly, we assess the effects of distinct measures of control: locus of control and domain-specific control over health and financial circumstances on the relationship between income adequacy and depressive symptomatology. We also examine the general effects of perceived income adequacy on depressive symptomatology among three distinct age groups: the young-old (aged 51-64), the mid-old (aged 65-79), and the oldest-old (aged 80-104). The hypotheses tested include:

1. Perceived income adequacy will be negatively associated with depressive symptomatology.
2. Locus of control and the domain-specific measures of control over health and financial circumstances will attenuate the effects of perceived income adequacy on depressive symptomatology.

Heckhausen and colleagues (2010) studied how adults adapt to age-related challenges across the

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lifespan and how they maintain their psychological and physical health. This motivational theory associates specific control strategies with goal engagement and disengagement processes. Utilizing a lifespan approach, this study assessed respondents between the ages of 51 and 104. This is a large number of years, and as a result, we divided the respondents into three age cohorts to assess differences in age as they relate to the three main variables: income adequacy, LOC, and depressive symptomatology.

Method

This study consisted of a longitudinal, quantitative analysis using the Health and Retirement Study (HRS), which is a nationally representative probability sample of households in the contiguous United States. The sample consists of non-institutionalized adults aged 51 and over with an oversampling of Blacks and Hispanics.

The HRS includes a robust number of individual difference variables that are central to health, personal finances, and psychosocial functioning. The psychosocial information was obtained from a random sub-sample of the panel participants who completed the core face-to-face interviews. The psychosocial module is administered to one half the sample of HRS respondents each wave. Because we are interested in understanding the effects of financial strain on depression over time, we extracted a sample population that was surveyed at two distinct points in time, 2006 and 2010. Those who did not complete the two surveys in their entirety were eliminated from the sample population. This results in a sample size of 5,251 respondents. The data in this analysis are publicly available and contain no unique identifiers, thus assuring respondent anonymity.

Hierarchical regression models were used to examine the independent contribution of income adequacy, locus of control, and domain-specific control over health and financial circumstances when controlling for the demographic characteristics of the respondents.

The Center for Epidemiologic Studies Depression (CES-D) scale is used as the dependent variable in this study. The higher score indicates the more negative the respondents' feelings were in the past week.

Perceived income adequacy is the main independent variable in this study and was assessed as a self-report measure on a scale of 1 to 5. Respondents were asked the following question: *How difficult is it for (you/your family) to meet monthly payments on (your /your family's) bills?*

General locus of control was measured by perceived constraints and personal mastery, and two domain-specific measures of controls (health and finances) were used. Each measure of control over health/financial circumstances was measured on a 10-point scale, where 0 means "*no control at all*" and 10 means "*very much control.*

Additionally, income adequacy and depressive symptomatology in mid and late life are shaped by demographic characteristics that include marital status, income, gender, race, years of education and whether you are currently working for pay. These factors were taken into consideration in the analysis so as to account for any associations with income adequacy, LOC, control over health and finances, and depression.

Results

The multivariate analyses that explain variation in depressive symptomatology are comparable in 2006 and 2010. A significant and negative association existed between perceived income adequacy and depressive symptomatology. The greater the level of perceived income adequacy, the lower the depression score. Age was also negatively-related to depression, but it varied by age category. Older respondents reported lower levels of depression compared to individuals in the reference category, aged 51-64. In general, the young-old adults, regardless of the level of depressive symptomatology, reported having more difficulty paying monthly bills than did respondents in the other two groups. Income adequacy varied more for the young group across all levels of depression than it did for the two older groups. Those reporting greater depression include individuals with less perceived income adequacy, aged 51-64, the unmarried, and those with fewer years of education. The combined effects of general and domain-specific measures of control had a significant effect on decreased depressive symptomatology.

When the LOC and two domain-specific variables are added to the Model, each variable significantly contributes to the variance in depression. However, it is clear that LOC contributes the most, where variance in 2006 and 2010 increases to 21% and 20% respectively. And when all the control variables are included in the Model 5, there is the greatest contribution of variance in depression, 23% in 2006 and 21% in 2010. Levels of significance remain comparable in these models.

Conclusions/Relevance

Depressive symptomatology can be a debilitating and challenging disease. We found that a lack of income adequacy contributes to depressive symptomatology. Mid-aged adults, specifically those 51-64, experience lower levels of income adequacy compared to their older counterparts, and these economic hardships contribute to their depressive symptomatology. When we consider the life circumstances of adults aged 51-64, these adults are likely working, raising families, paying for their children's college education, saving for retirement, and caring for their elderly parents. These demands are challenging and can lead to financial stressors, which may result in depression.

This research suggests that middle age is a time when control mechanisms can be developed and used as a protective factor against depressive symptomatology. From a program and policy perspective, steady employment and robust family leave policies can help assuage the depressive symptomatology of this age group.

Yet, our results indicate that LOC and domain specific measures of control have a negative effect on depression. These results underscore the importance of taking into account all factors in the context of associating income adequacy with depression. Future research agendas may shed additional light on how income adequacy and locus of control can affect the severity of depression by age category.

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