

## Insights: Financial Capability

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This issue brief summarizes the findings from [Wellbeing and aging-related decline in financial and health literacy in advanced age](#), published in *The Journals of Gerontology, Series B, Psychological Sciences and Social Sciences*. The corresponding author for this issue brief and the full paper is [Christopher C. Stewart](#) (postal address: 355 W. 16th St., Suite 2500, Indianapolis, IN 46202; email address: [chcstew@iu.edu](mailto:chcstew@iu.edu)).

# Feeling Good, Staying Sharp: Psychological Wellbeing May Slow Financial and Health Literacy Decline in Older Adults

### Summary

Financial and health literacy often declines late in life, leading to increased susceptibility to fraud and diminished decision-making skills. By contrast, psychological wellbeing promotes health in aging. In this brief, we examined 1,099 older adults (ages 56 – 100) participating in the Rush Memory and Aging Panel. We leveraged data from 13 years of annual financial and health literacy assessments to examine if higher psychological wellbeing is associated with slower decline in financial and health literacy in advanced age. We found that, on average, participants' financial and health literacy declined about 1 percent per year, but there was also considerable variation between individual participants. Our research found that higher wellbeing was associated with slower financial and health literacy decline, and this association was relatively independent of other important factors, including depressive symptoms and cognition. This finding suggests that wellbeing helps stave off a decline in financial and health literacy and, by extension, promotes independence late in life.

## Background

Many older adults have alarmingly low financial and health literacy.<sup>1,2</sup> This is highly problematic because low financial and health literacy makes older adults more vulnerable to a range of adverse outcomes, including fraud, debt, illness, and even death.<sup>4,6</sup>

Low financial and health literacy among older adults does not necessarily or solely reflect a lifelong limitation. Rather, literacy actively and gradually declines with age,<sup>7-9</sup> and these subtle changes may go unrecognized by afflicted older adults and their loved ones.<sup>10</sup> That creates an urgent need to identify factors that slow literacy decline in advanced age.

Psychological wellbeing promotes health and longevity in aging and may also be important in staving off aging-related financial and health literacy decline.<sup>11</sup> Psychological wellbeing goes beyond a person’s happiness, instead referring to several deeper aspects of psychological thriving like whether one finds meaning in life, actively pursues new experiences, and accepts personal shortcomings. In this brief, we examine whether higher wellbeing is associated with slower literacy decline in older adults.

## Study Participants

We analyzed data from 1,099 older adults enrolled in the Rush Memory and Aging Project, an ongoing study of aging and aging-related diseases in Chicago and surrounding areas.<sup>12</sup> We included participants who were without dementia at the start of the study as older adults without dementia are high functioning and usually continue to make their own decisions about financial and health matters. At baseline, participants had an average age of 81.0 years (ranging from ages 59 – 100) and an average level of education of 15.6 years (ranging from 5 – 30). About three-fourths were women, which is reflective of the overall panel composition of the Rush Memory and Aging Project participants.

## Measures

### Financial and Health Literacy

Participants completed a 32-item, multiple-choice assessment of financial and health literacy at the start of the study and annually thereafter for up to 12 years (the average number of annual follow-up literacy assessments was 6.1). The literacy items required a basic understanding and application of financial- and health-related concepts, such as compound interest, stocks and bonds, treatment-associated risk, and common causes of mortality. Twenty-three questions measured financial literacy, and nine measured health literacy. The percentage of correct responses was separately calculated for the financial literacy items and health literacy items. These two percentages were then averaged, which provided a measure of total literacy that ranged from 0 to 100 percent. Thus, all literacy findings obtained from this study refer to an aggregate financial and health literacy score.

Figure 1: Examples of financial literacy items

An older person with \$100,000 to invest should hold riskier financial investments than a younger person with \$100,000 to invest.

True | **False**

Using money in a bank account to pay off credit card debt is usually wise.

**True** | False

Stocks and mutual funds generally produce higher average returns above inflation compared to fixed-income investments such as bonds.

True | **False**

If a television set is on sale for \$899, which is \$200 off its normal price, what is the normal price?

\$699 | **\$1,099** | \$1,299

Note: Correct response is highlighted.

## Psychological Wellbeing

Participants completed an 18-item assessment of psychological wellbeing at the start of the study.<sup>13</sup> For each item, participants rated their agreement with a statement on a seven-point scale (from 1 = *Strongly Agree* to 7 = *Strongly Disagree*). The statements asked participants about their purpose in life (finding meaning in current and future activities), autonomy (having independent opinions and values), personal growth (openness to new experiences), environmental mastery (having a sense of control over responsibilities), positive relationships (having close, trusting social connections), and self-acceptance (acknowledging and accepting personal strengths and shortcomings). For each participant, an overall wellbeing score was calculated by averaging their responses to the 18 items. Wellbeing scores ranged from 1 to 7, with higher scores indicating higher levels of wellbeing.

## Other Factors

When examining the relationship between psychological wellbeing and change in financial and health literacy, it is necessary to account for other relevant factors that might influence these results. To do so, we conducted analyses that accounted for basic demographics (age, gender, education, and income), medical conditions, depressive symptoms, and cognition.

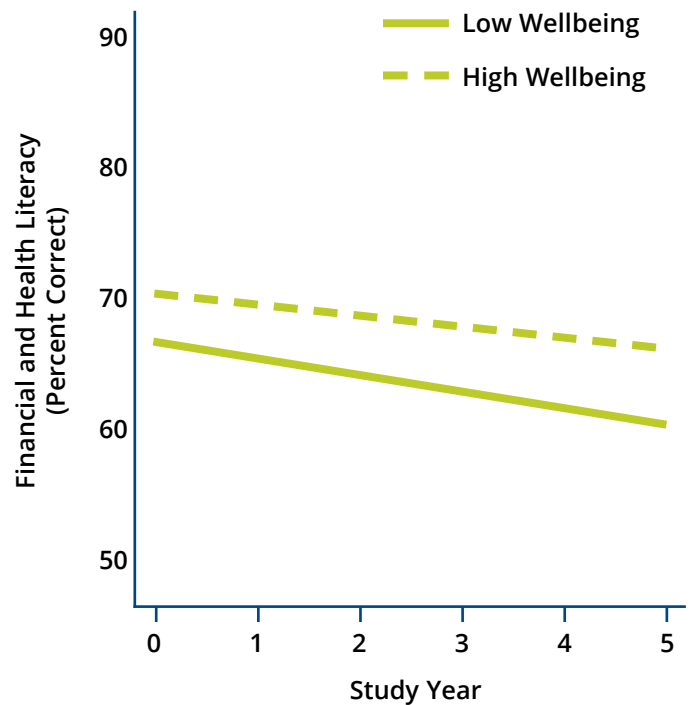
## Findings

On average, at the start of the study, participants scored 69 percent on the financial and health literacy assessment and 5.6 (out of 7) on the psychological wellbeing assessment. Higher wellbeing was associated with a higher starting level of financial and health literacy, younger age, more years of education, higher income, fewer medical conditions, fewer depressive symptoms, and higher cognition. Wellbeing did not differ between women and men.

During the 13 years of data collection, financial and health literacy declined about 1 percent per year, but there was considerable variation in change in literacy between participants. Higher psychological wellbeing was associated with a higher starting level of literacy and, critically, slower literacy decline. This was true even after accounting for age, gender, and education. To better understand the effect of wellbeing on literacy decline, we separately examined the rate of literacy decline for participants with low wellbeing (10th percentile) and high wellbeing (90th percentile). For those with low wellbeing, literacy declined about 1.3 percent per year. By contrast, literacy declined only 0.8 percent per year for participants with high wellbeing (See Figure 2).

Of note, the association of higher wellbeing with slower literacy decline remained after also accounting for income, medical conditions, depressive symptoms, and cognition.

**Figure 2: Changes in Financial and Health Literacy by Level of Psychological Wellbeing**



Note: Predicted starting levels and changes in financial and health literacy are adjusted for age, gender, and educational attainment. Low wellbeing reflects scores in the 10th percentile of psychological wellbeing; high wellbeing reflects scores in the 90th percentile of psychological wellbeing.

## Discussion

Financial and health literacy declines over time in advanced age, and this aging-related literacy decline presents unique challenges to older adults, as it involves the gradual loss of a skill that older adults have grown accustomed to using throughout adulthood. Moreover, older adults grappling with declining literacy may need to do so in the context of other aging-related difficulties. Poorer health, lower cognition, and waning social support, all of which often accompany aging, can make it particularly challenging to compensate for declines in literacy. Worse yet, if literacy decline is not identified, older adults may continue to behave as if their literacy is fully intact, leaving them vulnerable to poor financial and healthcare decisions or even financial exploitation.<sup>10</sup>

Despite the potentially catastrophic consequences, little is known about whether specific factors alter the trajectory of literacy in aging. To address this, we leveraged 13 years of annual financial and health literacy assessments among more than 1,000 older adults without dementia and examined the association of psychological wellbeing with subsequent change in literacy. Our main finding is that higher wellbeing was associated with slower financial and health literacy decline over time. Importantly, this finding was relatively independent of several other factors, including depressive symptoms and cognition. Thus, psychological wellbeing, and not merely a lack of depression or low cognition, was the key ingredient driving the protective effect on literacy decline.

It is uncertain how psychological wellbeing contributes to slower decline in financial and health literacy. We suspect that late-life literacy decline is primarily due to aging-related diseases, including Alzheimer's disease pathology, which accumulates slowly in the brain over many years prior to causing overt impairment.<sup>8, 14</sup> Fortunately, wellbeing is thought to boost cardiovascular, immune, and endocrine health.<sup>15</sup> These physiological benefits of wellbeing might help the brain continue to support complex abilities like financial and health literacy, despite degraded brain health. Additionally, wellbeing might operate on contextual and behavioral levels to reinforce older adults' literacy. For example, because older persons with higher wellbeing tend to be financial- and health-minded,<sup>11, 16</sup> they may seek out more opportunities to refine their financial

and health knowledge, and this might counter declines in literacy related to aging-related diseases.

The current study also raises new ideas about how to bolster literacy in older adulthood. For example, wellbeing might play an important role in addressing motivational barriers that undercut participation in financial and health literacy interventions.<sup>17</sup> By increasing wellbeing, older adults might perceive themselves as having more personal control over their finances and health and be more energized to participate in educational interventions that directly target literacy. Beyond addressing motivation, wellbeing is attractive from an intervention perspective as it is universally valued, can be intervened on flexibly, and confers broad health benefits.

This is an exciting time for research that examines the impact that psychological factors like wellbeing have on financial and health literacy and on related concepts like susceptibility to fraud. It is promising that psychological health seems to help the brain cope with some effects of Alzheimer's disease and other neuropathologies that are difficult to directly intervene. While much remains to be learned in this area, by highlighting the protective effect of wellbeing, this study provides a path forward in the fight against aging-related decline in financial and health literacy.

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