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Original Research Article

Relations between longitudinal trajectories of subjective financial wellbeing with self-rated health among elderly

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ABSTRACT

Background and objective: The relationship between income and health in late life is well established, but the link between subjective financial wellbeing (SFW) and self-rated health (SRH) has been relatively ignored, especially among elderly in Europe. Adopting a longitudinal person-oriented analytical approach this study investigates the relationship between SFW and SRH in late life in Italy.

Materials and methods: Analysis of the European Statistics on Income and Living Conditions survey (EU-SILC) for the period 2010–2013 in Italy examined these relationships at ages 65–78 (N = 1268). Latent class growth analysis and growth mixture modeling were used to identify latent trajectories of SFW. Post hoc analysis of variance examined how SFW latent groups differed in terms of SRH across time.

Results: A three-group latent trajectory model fitted the data best. The three SFW groups were named average-decreasing (n = 238), low-stable (n = 216), and high-stable (n = 814). Repeated measures analysis of variance indicated a significant multivariate effect of SFW latent trajectory class on SRH, controlling for age, gender, and presence of chronic diseases. Post hoc analyses revealed that levels of SRH in the high-stable SFW group remained the highest compared to the other two groups and did not decrease over time, while the average-decreasing group showed a decrease in SRH levels.

Conclusions: Results suggest that in late life longitudinal negative changes in perceptions of financial wellbeing may occur together with decreases levels of self-reported health. Future research on health inequalities in elderly should pay specific attention to the link between financial wellbeing and health from a self-reported perspective.

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1. Introduction

The world economic crisis that has stricken Europe since 2008 is known to have brought severe challenges for the public health sectors of many countries, causing a reduction in public health budgets and an increase of healthcare costs for citizens [1–4]. Older portions of the population are likely to have experienced this trend more negatively than other age groups [5,6], not only because they are in higher need of healthcare assistance, but also given their higher exposure to a variety of social risk factors, including poverty, social exclusion and poorer health [7–9]. Indeed, the association between socioeconomic resources and health and its role in predicting mortality in late life is well known [10–12]. However, despite the increasing adoption of self-reported tools to measure wellbeing in health-related studies [13,14], the relationship between subjective financial wellbeing (SFW) and self-rated health (SRH) in late life has been relatively ignored [15], particularly among elderly in Europe. Nevertheless, we know how the progressive aging of the demographic population at the European level will represent one of the major public health challenges of the near future [16], in particular considering how the risk of poverty grows with older age [17]. Accordingly, the current study aims at analyzing through a longitudinal person-oriented statistical approach the overtime differences in SRH between latent trajectory groups of SFW in a national representative sample of Italian older adults aged 65–78. We did so using Italian national representative data from the European Statistics on Income and Living Conditions survey (EU-SILC) conducted by the Italian National Institute of Statistics (ISTAT) between 2010 and 2013. The timing and longitudinal design of this survey provide relevant information to investigate the relationship between financial wellbeing and health in late life from a self-perceived perspective in Italy. In fact, not only from 2007 to 2010 the average public healthcare expenditure growth rate in Italy was significantly smaller than in the 2001–2006 period (2.3% and 5.1% respectively) [5], but according to a 2011 survey [18], a significant portion of Italian households declared to have reduced healthcare expenditures for reasons related to the financial crisis thus imposing health risks. Accordingly, to inform current and future public health steps more research is needed to evidence relationships between financial wellbeing and health among vulnerable portions of the populations such as the elderly.

1.1. Subjective financial wellbeing and self-rated health

Self-reported measures of wellbeing represent an opportunity to go beyond other indicators of progress and health in every society [19]. At this regard, subjective measures of financial condition and health have been extensively adopted in elderly research [20–23]. From a side, SFW better captures the meaning of income adequacy for individuals than other objectives measures of income [24]. More specifically, individuals are likely to perceive the adequacy of their income by comparing it to their reference group, so that such perceptions may vary between specific contexts, making self-reported measures more adapted to capture this variability [25]. From another side, SRH has been found to be a strong predictor of a variety of health outcomes, from life expectancy to mortality, to the occurrence of chronic diseases [26,27]. However, despite the burgeoning number of studies looking at the correlation between socio-economic status and income with health in late life, fewer studies have explored this relationship adopting a self-reported perspective.

From a theoretical point of view, the connection between SFW and SRH may have a dual explanation. First, according to the reference group theory [25], social comparison may mediate between these two dimensions. Experiencing material deprivation in certain areas can nurture in fact the feeling of being unable to participate in ways seen as customary within a community or peer group, such as being able to afford a week's annual holiday or a dinner out once a week [28]. Second, individual perceptions of "financial strain" or "economic stress" may increase the risk of psychological distress symptoms such as anxiety or depression, thus affecting overall health [29–32]. In sum, low SFW can have negative impacts on health in a longitudinal perspective by causing a loss in sense of control, an increasing in hopelessness and demoralization feelings, and a decrease in self-confidence [31,32].

Despite all these evidences, by reviewing extant research literature on the relationship between SFW and SRH focusing on populations of older adults, it appears there are some major challenges to address. First of all, many studies are cross-sectional [33–36]. Moreover, longitudinal research is often limited to multivariate approaches [31]. In particular, very few studies have adopted a longitudinal person-oriented analytical perspective in this domain [37]. In this type of approach, the basic premise is that the population is heterogeneous in terms of the investigated phenomenon and its change [38,39]. Thus, the aim of the longitudinal person-oriented method is to capture this diversity by identifying clusters of individuals following a similar pattern of development over time. On the whole, this approach offers the opportunity to analyze interrelated longitudinal processes more dynamically. Here, by associating SRH outcomes with SFW classes, it is possible to ascertain whether changes in self-perceived economic conditions are immediately or eventually reflected in health outcomes. Accordingly, within the framework of the current study, two main hypotheses were formulated. First, based on previous studies [23,40] it was expected to find different trajectories of SFW as some individuals encounter stability over time while others may experience positive or negative changes. Second, higher positive subjective financial situation was hypothesized to be related to higher positive levels of self-perceived health [31,35].

2. Materials and methods

2.1. Sample

This paper used EU-SILC data collected by ISTAT for the period 2010–2013. The EU-SILC in Italy covers the Italian resident population in private households, using paper and pencil technique and a multi-stage stratified cluster sampling procedure. Since 2010 data collections took place annually