


## COMMENTARY

# The multidimensionality of social health

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The social health of older adults has been a major concern throughout the COVID-19 pandemic. Older adults are a main risk group for serious illness and death from the disease, and physical distancing has been one of the more effective ways to protect their health (Wu *et al.*, 2020). However, a potential negative side effect of physical distancing guidelines is reduced social contacts and increased loneliness among older individuals (Cohn-Schwartz *et al.*, 2022; Hwang *et al.*, 2020). Within this context, van der Velten and colleagues (2022) wrote an important paper, which sheds light on the implications of the pandemic for the social health of older adults. They examined the social health trajectories of older adults during the COVID-19 pandemic in the Netherlands and the associations between social health and sociodemographic factors, mental health, and brain structure. They measured social health via indicators of negative and positive social health; negative social health was measured as loneliness and perceived social isolation, while positive social health was reflected by social connectedness and support exchanges. The study took place over three points between April and July 2020, during a period when pandemic-related restrictions were gradually eased in the Netherlands. Trends in the data were compared to the pre-pandemic situation. The researchers applied linear mixed models and generalized estimating equations to quantify associations between the determinants and trajectories of social health.

The results of the study by van der Velten and colleagues (2022) indicate that loneliness doubled in prevalence at the start of the pandemic, when compared with previous years. However, this trend improved over the course of the study as social isolation and loneliness scores decreased during the three months of follow-up. Higher levels of loneliness and social isolation at the start of the pandemic were related to depressive symptoms during COVID-19 baseline, female sex, loneliness prior to the pandemic, living alone, and not owning a pet. However, despite baseline differences for specific determinants, older adults showed similar recovery from loneliness and social isolation such that their negative social health trajectories improved at a

similar rate for all determinants. Social connectedness remained high throughout the first months of the pandemic. Feeling connected at the start of the pandemic was related to being older, female sex, low depressive symptoms during COVID-19 baseline and low loneliness prior to the pandemic. Larger intracranial volume was associated with increases in support exchanges. van der Velten and colleagues conclude that studying determinants of social health trajectories during the COVID-19 pandemic may help to identify risk factors for an adverse response to change in the social environment, even outside of the context of the pandemic (Hwang *et al.*, 2020).

This study offers several compelling advantages. One notable advantage is the use of longitudinal data from three points in time to measure the trajectories of social health during the pandemic. As the pandemic is dynamic and public health guidelines are often changing, longitudinal data are imperative for obtaining a comprehensive picture of the experiences of older adults throughout this crisis. The paper is also noteworthy for its examination of magnetic resonance imaging (MRI) of the brain performed prior to the pandemic. Indeed, the findings show that intracranial volume was associated with change in support exchanges over the course of the pandemic, such that individuals with larger intracranial volumes showed an increase in giving or receiving help, while persons with smaller intracranial volume showed a decrease in giving or receiving help. The role of brain health in later-life social functioning is receiving increasing research attention (Düzel *et al.*, 2019). These findings suggest that brain reserve may play a role in how older individuals cope with challenging times and provide a basis for future research to consider how brain function is related to developments in other aspects of social health in late life.

As with any study, these findings also need to be interpreted within the context of limitations. One issue is the long-standing question of selection bias. Individuals who choose to participate in surveys might be more sociable in general and have better social health, compared to individuals with worst social health who may be less likely to participate in research and be under-represented in the study.

Thus, the decline in negative social health at the pandemic onset might have been even steeper among the general population, more so than the decline observed among those who participated in the study. In addition, it is possible that not all adults have recuperated as quickly as indicated by the results. An additional issue is the need to expand this investigation into later stages of the pandemic. As restrictions were re-introduced and lifted several times since 2020 it would be intriguing to learn whether older adults experienced further changes in their social health over the course of the pandemic.

In the remainder of this commentary, I would like to reflect on some issues raised by these important findings in relation to the multidimensionality of social health. van der Velten and colleagues (2022) offer a comprehensive account of social health by examining both positive and negative social health. Such a perception is less often employed in studies on the social lives of older adults, as it is more common to focus only on negative social health, particularly loneliness, or only on positive social health, such as social contacts and support exchanges (Courtin and Knapp, 2017; Santini *et al.*, 2015). The studies that jointly examine both aspects often portray positive social health as a predictor of loneliness (e.g., Burholt *et al.*, 2019; Cohn-Schwartz *et al.*, 2022). However, there might be merit in referring to these concepts as overlapping but different aspects of social health, similar to the concepts of positive and negative mental health (also termed mental health and mental illness; Keyes, 2007). Such a perception, in relation to mental illness, stipulates that having no mental illness does not necessarily entail being in good mental health, for example a person who is not depressed might not necessarily feel happy (Keyes, 2005). Implementing this perspective in relation to social health could entail that a person who does not feel lonely or isolated would not always be thriving socially or feel connected to others. This emphasizes the need for a more extensive accounting of social health and calls for further joint exploration of its different aspects.

This differentiation between positive and negative social health is nicely demonstrated by van der Velten *et al.* (2022). The two constructs display different trajectories – negative social health increased at the beginning of the pandemic and declined over time, while positive social health remained high throughout the study period. The two constructs were also associated with different factors. Living alone and not owning a pet emerged as risk factors for negative social health, but these factors were less relevant for positive social health. Thus, negative social health might be more strongly

related to the lack of a relationship (Arpino *et al.*, 2022), while positive social health could be related to the content of one's relationships, which were not measured in the current study (Schwartz and Litwin, 2017). The social health of women presented a complex pattern – women reported more positive and more negative social health. Thus, women might have a lower “loneliness threshold” (Johnson and Mullins, 1987) compared to men and could need more social connections to feel less lonely.

Another avenue for future research, which will take into account the multidimensionality of social health, is disentangling the construct of support exchanges and separating it into giving and receiving support. van der Velten *et al.* (2022) combine both aspects into a single variable of giving/receiving help, following the process of factor analysis. However, it might be beneficial to refer to the two aspects separately (Nurullah, 2012). While the help that adults receive is examined often in the literature (Mohd *et al.*, 2019), the help they provide is less frequently explored (with the exception of the extensive research on informal caregiving; Adelman *et al.*, 2014). However, various forms of providing help, such as giving advice and support, may have positive implications for the emotional support provider by signaling that he or she is able and needed. Older adults who feel they are contributing to others may experience an increased sense of power and respect from their immediate environment, a sense which might otherwise be reduced as they grow older (Choi *et al.*, 2013; Matz-Costa *et al.*, 2014). Examining the help that older adults give to others can emphasize the active role that adults have in their close social milieu and include beneficial psychological implications of being socially useful and productive (Thanakwang and Isaramalai, 2013).

The exchange of support could further be divided into positive and negative support. While van der Velten and colleagues (2022) assume that giving and receiving support indicated positive social health, this might not always be the case. For example, providing support in the form of caregiving is often associated with stress and illness of a close individual and can have negative effects on mental health (Adelman *et al.*, 2014). In a similar vein, receiving help can also be associated with a state of dependency, illness, and burden. Thus, future research could make more fine-grained differentiation between “negative” and “positive” support that is given and received. For example, mental health might deteriorate for adults who provide support in the form of intensive caregiving, but mental health

could improve when these adults are providing support in the form of advice to younger family members.

In addition, the concept of positive social health could be expanded. Positive social health, as measured by van der Velpen and colleagues, focused on two specific aspects: feeling connected and support exchanges. However, social health is more extensive. Additional factors, such as the number of friends, social activities, and emotional closeness to others, are also significant indicators of how well a person is integrated into their social environment (Santini *et al.*, 2015). For instance, while sense of connectedness remained high throughout the study period, frequency of social contact might have fluctuated as restrictions were issued and gradually lifted.

Nevertheless, the paper by van der Velpen and colleagues provides comprehensive insights into the state of social health during the COVID-19 pandemic. The work makes an important contribution to our understanding of the processes of social coping among older adults during this global health crisis, and it highlights the need for greater attention to the multidimensionality of social health in later life. A key practical message for clinicians is the importance of examining the different aspects of social health and how these aspects could be optimized in later life.

## Conflict of interest

None.

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