


COMMENTARY

Importance of social functioning for older adults in the communities, the facilities, the clinics, and in the future

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Social isolation and loneliness in older people have long been public health concerns; these concerns were foregrounded during the behavioral restrictions resulting from the COVID-19 pandemic. The World Health Organization (2021) reported that 20–34% of older adults were socially isolated and felt lonely. Social isolation may serve as a prodromal symptom of dementia, but it can also contribute to the risk of developing dementia through increased risks of hypertension, coronary heart disease, and depression (Livingston *et al.*, 2017). An umbrella review and Delphi study by Rosenau *et al.* (2023) identified fewer social contact, hearing impairment, and sleeping problems as the most modifiable candidates for dementia risk reduction. It is well known that social contacts with family members, friends, neighbors, and communities comprise important elements of quality of life (Perales *et al.*, 2013). These interactions are significant even after developing dementia. Umeda *et al.* (2024) in *International Psychogeriatrics* created the Japanese version of the Social Functioning in Dementia scale (SF-DEM-J) translated from its original English version (SF-DEM; Sommerlad *et al.*, 2017), which consists of 17 items within three sections including engagement with social contacts and important social activities, communication with other people, and sensitivity to other people. The above-mentioned Rosenau *et al.*'s work stated that social contact had multidimensionality: functional operationalizations (“loneliness” and “social engagement”) and structural operationalizations (“social network size” and “living alone”). The SF-DEM-J as well as SF-DEM capture the functional aspect of social contact in older people with dementia, expecting this contributes to their quality of life. However, people with dementia tend to experience detachment from social relationships and familiar activities and thus tend to have less social engagement (Hackett *et al.*, 2019). These socially isolating conditions could be attributed to changes in their living environment and personal relationships, along with the progression of cognitive

impairments. Furthermore, in our increasingly globalized and digitalized society, we need to reconsider what role the social function plays and how this social function should be maintained in older people with cognitive decline.

As the number of individuals with dementia living in long-term care facilities increases, there is a growing emphasis on fostering interactions between residents, care staff, and off-site family members. Our 1-year follow-up study on social interactions and behavioral and psychological symptoms of dementia (BPSD) among long-term care facility residents demonstrated that less communication with family/relatives at baseline was associated with increased severity of BPSD over 1 year (Arai *et al.*, 2021). A qualitative study by van Corven *et al.* (2022) indicated that sustaining mutual relationships between facility residents with dementia and their families can be challenging, and facilitating meaningful connections is essential for both parties.

The social functioning of community-dwelling individuals with dementia can mostly depend on their relationships with their closest caregivers. As caregivers become more closely involved with the patient because of the responsibilities of care, there could be an increased risk of impacting caregivers' own physical and mental well-being. Implementing appropriate interventions for caregivers thus becomes essential in the view of fostering their relationships as well as decreasing care burden. In a recent issue of *International Psychogeriatrics* on non-medical social determinants of health in older adults, Sadavoy *et al.* (2022) revealed that an 8-week multicomponent group psychotherapeutic skills training intervention for caregivers in Canada positively influenced caregivers' health and well-being. Despite the decline in care recipients' activities of daily living during the program, caregivers experienced reduced stress, depression, and care burden while enhancing their competence, mastery, and coping abilities. Intervention programs are also expected to be cost-effective. From the same

issue of the journal, a systematic review of studies on economic evaluations of interventions for adult carers in the United Kingdom (Pelone *et al.*, 2022) found that multi-component programs, which encompassed self-care, communication skills, understanding the care recipient's condition, knowledge of relevant services, skill development, and psychosocial elements, tended to be cost effective. These programs were more likely to be effective when customized to the specific circumstances of individual caregivers and delivered in face-to-face interactions.

In clinical settings, changes in the social functioning of people with dementia are one of the important psycho-social factors, especially for detecting the early phase of dementia. In addition, mild behavioral impairment (MBI), which is a set of neuropsychiatric symptoms, starts from prodromal phase of dementia and cannot be captured by traditional psychiatric nosology. Subjective cognitive decline is also an early warning sign of future clinically significant cognitive decline (Janssen *et al.*, 2022). Some older people are aware of age-related changes and respond negatively (Sabatini *et al.*, 2022). Together with SF-DEM, evaluations of these psycho-social factors are expected to be indices for the prevention of further cognitive deterioration in older people.

One of the concerns in using scales for social functioning is that they can vary across cultural contexts and life stage. Sommerlad *et al.* (2017) and Umeda *et al.* (2024) observed that people with dementia tended to rate their own social functioning better than their caregivers did as proxy. As discussed in their papers, this discrepancy may come from the fact that people with dementia tend to underestimate or be unaware of their own cognitive deficits and symptoms, causing difficulties in accurately representing their social functioning. Additionally, Umeda *et al.*'s research found no association between the Mini-Mental State Examination (MMSE) scores and some section scores of SF-DEM-J (especially Sections 2, "communication with other people" and 3, "sensitivity to other people"), although total SF-DEM-J score was significantly associated with MMSE. This result is interesting. We anticipated that a decline in cognitive function should be closely associated with each section of social functioning as well as total social functioning. People with dementia may attempt to adapt in some ways to engage with society throughout their changes in life stages. Such adaptations may be likely to occur in social function items, particularly in communication with others and sensitivity to others, leading to their maintenance.

A growing body of research has dealt with predictive factors of BPSD because severe and persistent BPSD decreases the quality of life and social function of people with dementia. Umeda *et al.*

(2024) demonstrated that "spending time with others" and "communicating with others" were related to apathy and loneliness, suggesting some types of BPSD can progress as a result of social status and functions, which in turn relates to future cognitive decline.

Not only psycho-social factors but also genetic or other biological factors such as *APOE* ϵ 4, amyloid beta, and phosphorylated-tau are critical for causing BPSD (Ozaki *et al.*, 2023). Gene-environmental interaction is a framework that suggests that, in individuals with dementia, those with different genetic backgrounds may exhibit different responses even when exposed to the same environmental factors, resulting in a potentially greater risk of symptoms among people living with dementia (Burke *et al.*, 2016). In order to understand BPSD, it is essential to engage in interdisciplinary discussions and strive to comprehend the multifaceted bio-psycho-social factors underlying them, aiming for a comprehensive understanding of the pathology.

Interventions stimulating psycho-social factors in patients with dementia in multiple countries should be appropriately modified and performed considering cultural contexts such as a sense of shame and ageism. Although a questionnaire is commonly used in research on social functioning to collect quantitative information, there are some difficulties that have to be addressed when internationally compared. In case a questionnaire written in the language of the targeted population is not available, we need to develop a new questionnaire or translate a previously developed questionnaire into a different language. An advantage of using a translated questionnaire is that it enables international and racial comparisons. However, we need to take into account how differences in languages and cultures would affect the measures of social functioning. Multilingual questionnaires have to be semantically, idiomatically, experientially, and conceptually equivalent (Guillemin *et al.*, 1993). This does not necessarily indicate that a translated expression has the same meaning as the original language. Since a questionnaire measures latent constructs that are not directly observed, simply being translated may not be adequate. The concepts being measured should be matched even if the described words differ across languages. For example, Umeda *et al.* translated the question, "Thinking about the past month, how often have you attended community or religious meetings?" in the original English version to "Thinking about the past month, how often have you attended gatherings for community or neighborhood?" (Sommerlad *et al.*, 2017) in their Japanese translated version based on the guidelines and standards for the translation and cultural adaptation (Wild *et al.*, 2005). In fact, only 10% of the Japanese population

have a religious affiliation, and thus, the religious-related question would not be appropriate in terms of measuring social activities.

Differences in definitions of a term would also affect comparability. For example, how does the definition of “family” (which appears several times in the English version of the SF-DEM) differ across cultures? The term “family” in English can be translated to “Kazoku” in Japanese, which almost all Japanese speakers would agree with. However, we raise a fundamental question: “Is the term ‘family’ in English perfectly equivalent to the term ‘Kazoku’ in Japanese?” A subjectively envisioned form of “family” varies among cultures and even among individuals (Lück and Castrén, 2018). Cultural equivalence is an additional challenge even when the meaning and intent of the items in the original questionnaire are preserved (Kalfoss, 2019).

Non-equivalent questionnaires can lead to non-comparable and biased results. Further, poorly translated documents can measure concepts that were not intended to be measured.

Umeda *et al.*’s paper will likely trigger more active discussions on the importance of social functioning for people with dementia in Japan, and studies will continue to improve the validation of the evaluation scale. Leveraging the multifaceted aspects of social functioning, there is a need to consider how to support not only individuals with mild dementia but also those with advanced stages of dementia. Moreover, anticipated changes in the social environment and activity restrictions due to global outbreaks like COVID-19 can occur in the future. The challenge lies in how to maintain social function under such circumstances. Umeda *et al.* noted that the caregiver-rated SF-DEM-J score significantly improved after a follow-up period during the COVID-19 restrictions in which social distance was invariably required. They mentioned that the results would reflect participants’ efforts to maintain social activities by increasing contact using telephones and computers. Nowadays, online communication using digital technologies has rapidly disseminated, providing us with a valuable means of promoting social connections. A study with semi-structured interviews for persons with mild to moderate dementia showed that these technologies played a crucial role in mitigating feelings of isolation, facilitating connections with support networks, and providing opportunities for cognitive stimulation and personal growth (Talbot and Briggs, 2022). On the other hand, the participants reported cognitive fatigue and difficulties related to operating the technologies. People with severe dementia may have more of these difficulties and may also have trouble recognizing others using online tools. It is crucial to continue exploring what constitutes the

social functioning of older individuals with mild to severe dementia living at home or in facilities. Simultaneously, it is necessary to develop methods and tools to maintain their social functioning, taking into account their characteristics and preparing for any changes in the social environment.

Conflicts of interest

None.

Description of author(s)’ roles

All authors equally contributed to the manuscript, revised, read, and approved the submitted version.

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