

How do communication difficulties impact the social lives of older adults?

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Purpose of Study

To evaluate whether communication impairments have an independent association with social variables in a community-dwelling sample of older adults, even after controlling for health-related and demographic variables.

Introduction

It is estimated that 1 in 6 Americans has a communication disability of some kind which may have a significant impact on their education, employment, and quality of life¹.



Communication disability includes a variety of disorders related to speech, language, hearing and cognitive function for communication. Hearing impairment is the most prevalent communication disorder nationally, and it is the third most common chronic condition of older adults². Among Medicare beneficiaries, 55% (more than 16 million) are estimated to have some type of communication disability³.

It is known that communication impairments are associated with increased risk of depression, social isolation, loneliness, and poorer quality of life⁴. These findings have been confirmed in a variety of clinical populations, including older adults with uncorrected hearing loss⁵, aphasia following a stroke⁶, Parkinson's Disease⁷, and cerebral palsy⁸. It is difficult to estimate the relative impact of a communication disorder, however, because they often co-occur with other health problems and functional limitations.

In addition, it is known that the social networks of older adults change over time. While the total number of social relations decreases with age, the number of close social relationships does not, and social support remains stable until very old age, as described in Socioemotional Selectivity Theory⁹. While only a minority of community-dwelling older adults are severely lonely or isolated, there are a number of risk factors for becoming so, and the risk of these life events occurring increases with age^{10,11}.

Thus, although communication impairments are known to have social consequences, to date there has been little research into the relative impact of communication disabilities generally (i.e. using a broader definition than hearing impairment alone). We were interested to investigate whether communication impairments would be associated with the social lives of community-dwelling older adults, after controlling for other health and demographic factors.



Methods

The study involved a secondary analysis of data from the Later Life Study of Social Exchanges (LLSSE) a study of the social lives of a nationally representative sample of older adults living in the continental U.S. (n=742)¹². Baseline interviews were conducted during in-home interviews conducted by trained interviewers during 2000-2001. All participants underwent cognitive screening prior to inclusion. Thus, the study population was defined as non-institutionalized, English-speaking, 65-90 years of age, and cognitively functional.

Predictor variable:

Communication impairment: A Communication Impairment Score was created by averaging scores from 3 survey items, rated on a scale from 0-2, with higher values indicating greater difficulty in the following areas:

- Difficulty using the telephone,
- Difficulty hearing (even with a hearing aid)
- Difficulty understanding & responding quickly to questions.

The distribution of mean scores across the sample as a whole is shown in Figure 1.

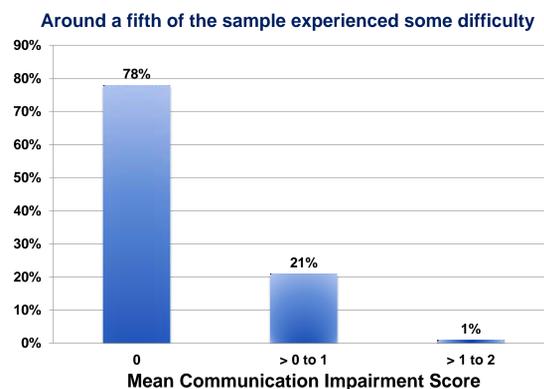


Figure 1. The prevalence of communication impairments.

Covariates:

Demographic characteristics: age, sex, being single (divorced/separated/never married), and being bereaved.
Health: self-rated health, the number of health conditions (from a list of 12 common conditions), functional limitations (mean limitations on 14 ADL and IADL items, excluding phone use), and visual impairment (difficulty seeing even with glasses).

Dependent variables:

Loneliness: a 6-item version of the UCLA Loneliness Scale.
Positive and negative social exchanges: the frequency with which participants experienced positive social exchanges (e.g. companionship) or negative social exchanges (e.g. criticism) from their social network.
Social network variables: number of network members with whom they experienced positive or negative social exchanges and the total number of network members.
Leisure and social activity: frequency of participation in nine different activities.

Results

Characteristics of the sample are summarized in Table 1. The participants' average age was 74.91 years (SD = 6.52). The majority was female (62%). Slightly more than half (52%) of the participants were married, 34% were bereaved, 7% were divorced, and 4% were never married. The majority of the participants were White (83%), 11% were Black/African-American, 4% were Hispanic, and 2% belonged to another ethnic minority group. Study participants closely resembled the older (65+) U.S. population based on comparisons with the 2000 census data¹³.

	Mean	SD	Range
Predictor Variable:			
Communication Impairment Score	.11	.26	0-2
Covariates:			
Age	74.91	6.52	66-92
Female	.62	.49	0-1
Divorced / separated / never married	.13	.33	0-1
Bereaved	.34	.47	0-1
Self-rated health	2.07	1.07	0-4
Number of health conditions	2.23	1.61	0-11
Functional limitations	.63	.64	0-4
Visual impairment	.13	.41	0-2
Dependent variables:			
Loneliness – total	5.08	3.54	0-18
Positive exchanges – total	2.43	.80	0-4
Negative exchanges – total	.43	.56	0-3.42
Number of members – positive exch.	5.59	3.10	0-19
Number of members – negative exch.	1.12	1.48	0-10
Total number of network members	5.94	3.29	0-21
Leisure and social activity – mean	1.94	.74	0-4

Table 1. Means, standard deviations and ranges for study variables.

Data Analysis

Ordinary least squares multiple regression analyses were conducted in order to examine the relationship between the Communication Impairment Score and each of the outcomes of interest. Each model also included the eight covariates listed above, namely age, gender, being single, being bereaved, number of health conditions, self-rated health, functional impairment, and visual impairment.

Results from the regression analysis indicated that Communication Impairment was a significant predictor of several social variables, even after controlling for the study covariates. Specifically, Communication Impairment was a significant predictor of:

- higher levels of loneliness ($\beta = .154, p < .001$),
- a smaller social network ($\beta = -.091, p < .05$),
- less frequent participation in social activities ($\beta = -.092, p < .05$),
- experiencing fewer positive social exchanges ($\beta = -.117, p < .01$).

Communication Impairment was not a significant predictor of:

- the frequency of negative social exchanges, or
- the number of network members with whom an individual reported experiencing positive or negative social exchanges.

Conclusions

1. **Communication Impairment was a significant predictor of several social outcomes, even after controlling for a range of other variables including age, partnership status, health, and disability.**
2. **Specifically, Communication Impairment was associated with higher levels of loneliness, a smaller social network, less frequent participation in social activities, and experiencing fewer positive social exchanges.**
3. **To date, this is one of the few studies to have measured the relative impact of communication impairments (defined broadly) on the social lives of community-dwelling older adults.**
4. **Some social outcomes were more affected by communication impairments than others. This is a novel finding and the reason for this is unclear. More detailed analysis with regard to the nature of these differences is planned in the future.**

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