Geriatric Nursing ■■ (2017) ■■–■■

Contents lists available at ScienceDirect

Geriatric Nursing

journal homepage: www.gnjournal.com

The effects of hearing loss on person-centred care in residential aged care: a narrative review

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ARTICLE INFO

Article history:
Received 28 July 2017
Received in revised form 19 October 2017
Accepted 23 October 2017
Available online

Keywords:
Person-centred care
Shared decision-making
Residential aged care
Hearing loss
Narrative review

ABSTRACT

Person-centred care is achieved through strategies such as effective communication and shared decision-making. Hearing loss can lead to communication breakdown and social isolation in residential aged care. The review aimed to address how hearing loss affects person-centred care in residential aged care settings. Empirical literature was identified through a systematic search of academic databases. Articles were reviewed against an inclusion criteria and general inductive analysis was employed to identify recurring factors across included studies. Six common factors emerged from the data: communication breakdown, the overlap between hearing loss and cognitive impairment, social isolation and reduced social participation, limited access to hearing services, inadequate training provided to care staff, and strategies to improve communication. Recommended strategies to facilitate person-centred care for residents with hearing loss are presented. Further investigation is needed to understand the effects of hearing loss on residents' autonomy and shared decision-making.

Introduction

The importance of person-centred care has been recognised internationally by government bodies, policymakers, health professionals, and researchers.[1] Person-centred care encourages mutual collaboration between health care professionals, consumers, and third parties such as family members or carers. This collaboration empowers consumers to be active participants in their care, and supports their autonomy.[2,3] A principal component of person-centred care is *shared decision-making*, which refers to a consultation process aimed at supporting informed decision-making, while taking into consideration consumers' preferences and values.[4–6] Shared decision-making is facilitated through pro-active initiatives such as exchange of information, and supported decision-making.[4–6]

Person-centred care is relevant to the residential aged care sector for two key reasons. First, ageing populations place demands on aged care services such as residential facilities.[7] In order to meet the needs of older consumers and improve the quality of their care, a consumer-centred approach is necessary.[8] Second, residents' autonomy and participation in their care is limited by mobility,[9] cognitive,[10] and sensory,[11] impairments.

Person-centred care and shared decision-making require effective communication, where consumers are encouraged to express their opinions and be active participants in their care.[5,12] One of the major barriers to communication in residential care is age-related hearing loss, or presbycusis.[13,14] Presbycusis is characterised by a progressive degeneration of auditory functioning resulting in difficulties understanding speech, especially in the presence of background noise, reduced hearing sensitivity, and impaired localisation of sound.[15] In the majority of cases presbycusis initially affects high-frequency hearing, which is associated with consonant sounds.[15,16] This means that in the early stages of presbycusis, individuals often experience miscommunication and complain of not being able to understand information, as opposed to not being able to hear it.[15,16] As presbycusis progresses, mid and lower frequencies become harder to hear, exacerbating communication difficulties.[15,16]

The prevalence of hearing loss increases with age, with age-related hearing loss being the most prevalent form of sensory decline

Funding: This work was supported by a Macquarie University Research Training Pathway (RTP) Scholarship [KL]. The funder played no role in the design, execution, analysis and interpretation of data, or writing of the study.
Conflict of interest: We have no conflict of interest to declare.

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0197-4572/$ — see front matter
https://doi.org/10.1016/j.gerinurse.2017.10.013

in older adults.[17] The global rate of age-related hearing loss is high, with 33% of the world population over 65 years experiencing debilitating hearing loss.[18] The social and physical environments of residential aged care facilities further reduce the quality of communication as competing background noise from televisions, radios, announcement systems, and surrounding conversations lead to communication breakdown and social withdrawal in residents with hearing loss.[14,19]

In order to improve the quality of care provided to residents of aged care facilities, we need to understand how hearing loss affects person-centred care. Existing reviews have either focused on person-centred care in residential aged settings,[20,21] or have addressed the issue of hearing loss in older individuals.[22,23] This is, to the best of our knowledge, the first review linking the two concepts together. The study aim is to review and synthesise empirical literature, in order to address the research question: how does hearing loss affect person-centred care in residential aged care?

Methods and materials

Search strategy and criteria

A two-stage narrative review was conducted between March–May 2016, using a systematic approach. KL carried out Stage 1 which involved a review of article abstracts identified through a systematic search of bibliographic databases (Scopus, Web of Science, PubMed and Embase). Any uncertainty regarding the inclusion or exclusion of abstracts was discussed with VM in light of the research question and inclusion criteria until a consensus was reached. The following search terms were entered into each database: "hearing loss" OR "hearing impaired" OR "hearing impairment" OR "presbycusis" AND "aged care" OR "residential aged care" OR "nursing home" OR "long term care" AND "shared decision making" OR "decision making" OR "decisions" OR "communication" OR "autonomy" OR "person centred care" OR "patient centred care." The search was limited by language, date and publication type in line with the inclusion criteria. Terms were identified through an informal review of the literature and discussions with health care academics and aged care experts. The terms were selected to reflect the use of terminology across countries and care domains (for example, person centred versus patient centred, and residential aged care versus nursing home versus long term care). The term "deaf" was not included in the search strategy as it primarily refers to members of the Deaf community.[24] Individuals who have age-related hearing loss experience restricted hearing ability different to Deaf individuals (uppercase 'D') in terms of both identify and communication strategies.[24,25]

The abstracts of articles identified through the search strategy were assessed against the following inclusion criteria: peer-reviewed, English-language journal articles published between 2000–May 2016; empirical research; residential aged care setting; involved health consumers who acquired hearing loss in adult life; referenced person-centred care or associated constructs (shared decision-making, consumer-health professional interactions, communication, and autonomy); and, addressed the associated between hearing loss and person-centred care. Two of the authors, KL and VM, independently carried out the Stage 2 review which consisted of a full text review of selected publications.

Quality assessment

The quality of publications was assessed using the *Mixed Methods Appraisal Tool* as it allowed for the evaluation of qualitative, quantitative, and mixed methods study designs.[26,27] This tool enabled the evaluation of factors such as risk of bias, appropriateness of tools and measures, the integration of qualitative and quantitative data, and sampling strategy.

Qualitative synthesis

A statistical analysis was not appropriate for this review due to the heterogeneity of included publications. A narrative approach was therefore taken to allow for descriptive presentation of data.[28] Data analysis was carried out by KL using general inductive analysis.[29] Each publication was read until a general understanding of the context and patterns within and across the studies was gained. An open coding process consisted of applying descriptive labels to text in order to extract meaning.[30] Similar codes were grouped together to form categories, which represented recurring concepts. Categories were revised and refined into broader factors. The remaining authors reviewed and verified the results for accuracy and fidelity.

Results

Study characteristics

The search strategy, outlined in Fig. 1, resulted in the identification of 718 items, which after removal of duplicates resulted in 635 articles. Screening of abstracts reduced the selection to 12 articles that met the study inclusion criteria. KL and VM rated five and nine of the 12 articles as meeting the full text inclusion criteria, respectively. Although not essential due to the low number of included publications, Cohen's Kappa, a measure of the agreement of raters was calculated for completeness. The agreement rate between reviewers was 66.67%; Cohen's Kappa = .38, or a fair degree of concordance, in Landis and Koch's (1977) schema.[32] Consensus, via discussion, was reached between the two reviewers which lead to a final inclusion of six publications (Table 1).[14,33–37]

Two publications employed a qualitative study design[14,36]; one study used a quantitative design,[37] and three studies involved mixed methodology.[33–35] Only one study recruited both residents and staff members as participants,[14] whereas two studies limited participants to care staff or aides,[35,36] and the remaining three studies involved only residents as participants.[33,34,37] The views of relatives were not considered in any of the studies. In Aberdeen and Fereiro's (2014) study, family members were present during four of the 20 interviews, however their views were not directly assessed.[33] Consumers' autonomy was not assessed in any of the six studies, and only Looi et al. (2004) made reference to residents' decision-making.[34] In this study, staff members "sometimes" encouraged patients to make decisions, however, the study did not assess the association between hearing loss and decision-making. All six publications evaluated the association between hearing loss and communication, and three of the studies reported on consumer-health professional interactions.[14,35,36]

Quality assessment

All articles met the *Mixed Methods Appraisal Tool's* initial screening questions. Four of the six studies received quality scores between 75–100% (see Table 1). Quality scores of 25% were given to Aberdeen and Fereiro (2014)[33] and Looi et al. (2004).[34] Both studies scored low on the following criteria: detailed descriptive of qualitative analysis, objective rational for employing mixed methods, objective integration of qualitative and quantitative data, consideration for the limitations associated with integration, and consideration of researchers' influence on findings.