


The Singer or the Singing: Who Sings Individually to Persons With Dementia and What Are the Effects?

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Abstract

“Live” singing to persons with dementia (PWDs) may be an underused but highly accessible resource for their caregivers, regardless of qualifications. A systematic literature review sought to illuminate who sings to PWDs, and with what objectives and effects, to address the question of whether it is the singer or the singing which is effective. The literature revealed that music therapists seek to address cognitive, behavioral, physiological, and social factors through one-to-one singing, whereas other caregivers are more broadly concerned with quality of life, often through facilitating activities of daily living. All included studies concurred that individual singing to PWDs can be effective in a variety of ways, depending on contexts and goals. PWD's perceptions of situations may influence the effectiveness of singing interventions. Music therapists are urged to empower professional caregivers to sing sensitively to PWDs during caregiving activities.

Keywords

dementia, Alzheimer's disease, caregiver, singing, music therapy

Introduction

Singing as a one-to-one intervention is an accessible and underused means of alleviating distress in both care receivers and caregivers (CGs) in dementia contexts.^{1,2} A Swedish set of studies³⁻⁷ demonstrated that when professional CGs with no musical training sang to their care receivers individually during morning hygiene routines, the usual reactions of aggression, combativeness, and confusion in persons with dementia (PWDs) were replaced by cooperation, communication, and a sense of understanding. The professional CGs also expressed considerable improvement in their perceptions of the situations. Songs sung were whatever the CGs felt comfortable singing, and comprised folk songs, children's songs, and drinking songs. Most CGs sang the words of the songs, but some simply hummed the tunes.

Music therapists (MTs) are trained to be aware of clients' backgrounds, diagnoses, and potential needs and to respond to them sensitively in the moment.^{1,2} However, it is true that MTs cannot be present with PWDs as often as CGs, and often not in situations where assistance with acts of daily living (ADLs) is being given.^{3,8,9} These are often the most distressing times of day for PWDs, as they may not understand what is being done to them and feel their privacy is being invaded.¹⁰

Although other literature reviews have looked more broadly at the use of music therapy in dementia contexts,^{1,11-13} to our knowledge no review has comprehensively compared individual singing to PWDs by persons with differing qualifications,

including MTs, professional, and nonprofessional CGs. To address this gap in the literature, the authors undertook a systematic literature review that focused specifically on individual singing with PWDs, regardless of the qualifications of the singer. This is not a review of music therapy interventions exclusively, nor does it deal with documented singing interactions with PWDs while in groups.

Literature Review

The World Health Organization¹⁴ reported 24.2 million cases of dementia worldwide in 2004, a number expected to increase substantially, particularly as the baby boomer generation enters old age.¹⁵ Simple, cost-effective approaches founded on evidence-based and solution-focused strategies are needed to address the expected rise in incidence of dementia over the next few decades. Pharmacological approaches are of limited efficacy and may generate adverse side-effects, including accelerated cognitive decline and premature death.^{16,17}

Attitudes to dementia have been changing, from past associations with insanity⁸ to high-level efforts to remove stigma:

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for example, the Australian government made dementia a National Health Priority in 2008,¹⁸ whereas in 2009 the British government released a national dementia strategy.¹⁹ Changes in dementia care practice began to emerge in the late 1980s, as the concept of “person-centred care” was promoted.^{20,21} Disputing the commonly held view of equating “personhood” with cognitive ability, it defines “personhood” as “a standing or status that is bestowed upon one human being, by others, in the context of relationship and social being.”^{21(p8)} ‘Person-centered care’ rejects caregiving within an “us” and “them” dichotomy and advocates nonpharmacological interventions including music. It has been adopted by many health practitioners in the dementia field (eg, refs 10,22-25).

The psychosocial needs of PWDs include a sense of safety, order, control, recognition, power, and freedom,²⁶ feeling useful, and having choices.²⁷ Human kindness is extremely important for people whose speech and comprehension are compromised by dementia.^{10,26} Remaining cognitive abilities may be maximized through activities that emphasize affect rather than cognition, while caregiving characterized by close and calm contact may promote lucidity.²⁸ Factors that may hinder these needs being met include communication problems, the discounting of PWDs’ needs by their CGs, and a lack of knowledge and resources.²⁹ Behavioral problems displayed by PWDs may be indicators of unmet needs, including lack of social contact, boredom, and pain.^{29,30}

Music has the potential to address imbalances in reciprocity between CGs and PWDs, reduce apathy, agitation, and other behavior problems, and enhance communication and cognition in PWDs because music is largely a social phenomenon, has high impact when shared between people, and stimulates PWDs to interact with others.¹¹ Memory for familiar music is often retained in PWDs, despite deterioration in other areas of functioning and regardless of whether they have had formal musical training.³¹ Music facilitates autobiographical recall in PWDs, thereby increasing meaningful communication with others.^{32,33} Listening to music is a source of intense emotional experience, which may enhance mood: Intensely pleasurable responses to music have been shown to cause activation in subcortical brain regions connected with emotion and motivation.³⁴ Finally, music facilitates the release of tension and stress that decreases feelings of burden, anxiety, and/or depression.³⁵

Live music, comprising singing, instrument playing, and dancing, has been used to address agitation and related issues in PWDs in individual and group music therapy.^{8,36-44} Song writing was shown by Silber and Hes to be an accessible activity for PWDs.⁴⁵ Some MTs have provided guidelines for professional CGs, regarding the use of music in caring contexts.^{8,46-48}

Professional CGs without music therapy qualifications have also sought to use live music to improve the quality of life of PWDs, for example through improvisation,²⁴ a community-based choir for persons with Alzheimer’s disease and their non-professional CGs,⁴⁹ and the aforementioned singing to and with institutionalized PWDs during care routines.³⁻⁷

Sing-a-longs and other musical activities have been organized in institutional dementia contexts by diversional therapists and activities coordinators,^{27,50,51} nurses,⁵² and psychologists.^{53,54} Extensive use of recorded music is documented by a range of health professionals, including nursing staff,^{41,55-62} psychiatrists, psychologists and therapeutic, and physical education educators.⁶³⁻⁶⁶

The examples listed above suggest that MTs and other CGs may play a role in providing meaningful interaction with PWDs and generated the research question, which is more effective: the *singer* or the *singing*? Subquestions were, who sings individually with PWDs? What were their objectives and effects? It was hypothesized that person-to-person singing is an underused means of providing quality care to PWDs, accessible to any person who can at least hum a tune. A systematic literature review was conducted to compare the evidence of differently qualified persons singing individually with PWDs.

Methods

Overview

A systematic literature review was conducted to compare evidence of individuals singing with PWDs. The initial search was intentionally kept broad to capture any articles that may prove relevant. All types of published English-language articles referring to one-on-one singing with PWDs were considered to obtain maximum insight into current practices.

Search Strategy

Search terms “singing AND dementia” were used. No “earliest” date was applied to capture as many potentially relevant articles as possible. Searches took place during July 2010. Electronic databases searched include BMJ Clinical Evidence, Cambridge Journals, CSA Illumina, CSA Social Sciences Collection, Ebscohost, Health Source (Nursing/Academic edition), Humanities Index, ISI Web of Knowledge, Medline, Proquest (Academic, Arts, Dissertations & Theses, and Social Sciences scholarly journals), PubMed, SAGE, SAGE Journals Online, Science Direct, Stat!-Ref, Taylor and Francis Online Journals, and Wiley Interscience. A Web site search of “Voices” (<http://www.voices.no>) and “Music Therapy World” (<http://www.musictherapyworld.de>) was also conducted. Hand searches of available journals which predated available databases were also conducted, including Activities, Adaptation and Aging, Journal of Music Therapy, Music Therapy Perspectives, and Nursing Standard.

Articles were included if they (a) described one-to-one singing interactions with a PWD using only “live” singing (ie, not recorded music); (b) were in English; and (c) were full text. Review articles were excluded on the basis that articles included in reviews should be available and examined individually for specific evidence of individuals singing to or with a PWD. Articles were excluded if they described singing in a situation other than individual person-to-person where one person has dementia, so articles describing an individual PWD

singing or being sung to while part of a group were not included because of the possibly confounding influence of group dynamics.

Articles meeting selection criteria were collated according to the country in which studies were conducted or articles published, research design, data collection and analysis methods, interventions, number and gender of participants, stages of participants' dementias, objectives, effects, and the qualifications of the person singing.

Results

Overview

Searches identified 1688 articles including duplicates, with 38 meeting the inclusion criteria. After removing 22 duplicates, 16 articles remained for analysis (see Appendix). The remaining articles were excluded on the basis that they did not specifically refer to individualized person-to-person "live" singing with a PWD. Many excluded articles reported singing to PWDs while part of a group and/or with recorded music. A number also investigated the use of interactive technology which involved individual PWD engaging in singing with multimedia devices.

Who Sings Individually With PWDs?

Of the 17 included studies, 10 were by MTs documenting individual music therapy interventions with PWDs.^{39,40,43,67-73} One of these⁷⁰ reported on musical interactions (including singing) between PWDs and their family (nonprofessional) CGs, which were initially facilitated by an MT. The 7 remaining studies were by nurses, who either conducted nonrandomized controlled trials or described nursing practices which involved individual singing with PWDs.^{3-7,74,75} The qualifications of the nursing personnel who sang were either registered nurse (RN), or nursing assistant/professional CG. Five of these³⁻⁷ described and examined differing elements of one data set.

Study Designs

Five studies employed qualitative methods,^{3,5-7,67} 8 used experimental designs,^{39,40,68-73} and one study adopted a mixed method approach.⁴³ Groene's study⁴⁰ was a standard RCT where PWDs were randomly assigned to either a "mostly music" or a "mostly reading" condition, whereas 11 studies were nonrandomized controlled trials.^{5-7,39,43,68,70-74} Christie⁶⁸ published a retrospective clinical report, Perry⁷⁴ conducted a Web-based survey, and articles by Brown and colleagues⁴ and Smith⁷⁵ were theoretical papers incorporating clinical vignettes.

Data Collection and Analysis

Most trials collected data via video analysis.^{3-7,43,70-72,74} Other methods included frequency counts of behaviors using checklists,^{69,73} accurate face-name recall over different time

intervals,⁶⁷ and timing the duration of wandering behaviors.^{39,40} Data analysis in the qualitative studies included various qualitative approaches including phenomenological—hermeneutic approaches and grounded theory.^{5-7,43,74}

Settings and Participants

A total of 15 articles reported the effects of singing with individual PWD in a residential care facility. However Clair's study⁷⁰ examined interactions between PWDs and their non-professional CGs both at home and in institutions. Descriptions of diagnoses of PWDs varied from specific, for example "frontotemporal dementia"⁴³ to general (dementia), and 9 articles included either a Mini Mental State Examination (MMSE) score⁷⁶ or Global Deterioration Scale (GDS) level.⁷⁷ Gender distribution of PWDs was 95 females and 43 males, with an age range of 57 to 99 years. Cultural contexts included the United States, Sweden, Denmark, Canada, and the United Kingdom.

Objectives and Effectiveness of Music Therapy Interventions

Improved cognition. The cognitive functioning of persons in early stages of dementia was the focus of studies by MTs Lipe⁷³ and Carruth.⁶⁷ Lipe's aim⁷³ was to discover the usefulness of musical tasks (including singing) in assessing the cognitive functioning levels of PWDs. Persons with dementia were required to learn 3 new short songs taught by the MT and to also sing a "familiar" song. Strong correlations were found between PWDs' ability to recall the song lyrics accurately and their cognitive scores on the MMSE.

Carruth⁶⁷ focused on memory function, hypothesizing that singing to and with PWDs would increase their face-name recall abilities, tested at varying time intervals. Improvements in instances of correct naming were seen for 4 of the 7 participants, including 1 for whom this generalized beyond the music therapy session. The fact that participants were tested at different times of day (afternoon and evening) may have affected the findings. So although singing ability may be a good indicator of cognitive functioning,⁷³ Carruth's results⁶⁷ suggest only a moderate cognitive gain from this example of singing individually with PWDs.

Responses to music. Two studies by MTs^{69,71} investigated the responses of PWDs to music. Six men, unable to perform activities of daily living but who remained physically mobile, participated in a study to ascertain the ability of various musical activities to evoke musical responses.⁷¹ Only 1 of the 6 joined in the singing, whereas drumming elicited significantly more musical participation. The authors concluded that drumming was the most effective means of generating musical interaction.

A study by Clair involving 22 women and 4 men⁶⁹ compared the effects of singing familiar songs, reading a newspaper, and remaining silent with persons in very late stages of dementia. Using a within-subjects design, Clair⁶⁹ conducted 4 sessions on sequential days, comprising each of the 3 interventions in

varying order. Measured responses included changed facial expressions, eye movements, and head and limb movements. Silence elicited very little reaction and no statistical differences between responses to singing and reading were found, although singing elicited earlier and slightly more responses.

Decreased challenging behavior. Four music therapy studies^{39,40,43,68} addressed behavioral issues in PWDs, specifically wandering and the perseverative striking of a hard surface. Both Fitzgerald-Cloutier³⁹ and Groene⁴⁰ compared music activities (including singing) with reading for effectiveness in decreasing wandering behavior in PWDs. Both found music more efficacious than reading, although Fitzgerald-Cloutier's³⁹ single-case study showed greater improvement than Groene's 30 individual participants.⁴⁰ Both studies reported that improvements in wandering behavior did not continue beyond music therapy sessions.

Ridder and Aldridge⁴³ used singing with the aim of decreasing the agitated and isolating behavior of 6 PWDs with frontotemporal dementia (FTD). Reporting on only 1 of their participants, they found that 20 daily sessions of unaccompanied singing by an MT over 4 weeks may have contributed to significantly lower heart rate and a reduction in antipsychotic medication. However, they concluded that this approach is intensive and takes time to be effective.

Christie⁶⁸ described song singing with a 93-year-old male with dementia to modify his characteristic behavior of repeatedly striking his chair. After 12 twice-weekly sessions of song singing with the therapist, where his singing and hand-clapping were encouraged, other staff subsequently reported that he frequently sang or clapped his hands, which was more a more positive expression of his agitation.

Improved social functioning. Two studies by MTs examined the effects of music (including singing) on social functioning, and found music highly effective in increasing social interactions of PWDs. Pollack and Namazi⁷² observed an overall 24% increase in PWDs' positive social behaviors toward others in the 15 minutes after individual music therapy sessions, compared to the 15 minutes before. A more intimate level of social functioning was emphasized by Clair,⁷⁰ who explored music's ability to enhance meaningful interactions between PWDs and their nonprofessional CGs. For inclusion in the study, PWDs had to be no longer able to communicate through conversation. The MT offered protocols of singing and dancing or dance adaptations (for PWDs who were nonambulatory) to each PWD/family-CG dyad. Of the 8 couples, 2 chose singing as a means of increasing mutuality during visits. The improvements in reciprocal engagement, observed during 8 music sessions and in a subsequent nonmusic session, were highly significant, and all participating CGs stated that they would continue to use the musical interventions they had chosen.

Summary of music therapy findings. In summary, MTs who sang individually to and with PWDs were interested in finding out how effective music therapy is in areas of cognitive, social,

and behavioral functioning, and also musical responses. Individual singing was demonstrated as most effective in social contexts, facilitating meaningful communication and positive social behaviors. Frequent music therapy sessions were also successful in reducing physiological and behavioral symptoms of agitation. Individual singing was a useful tool in assessing the cognitive abilities of PWDs, correlating with MMSE findings, but only moderately successful in improving face-name recall. Singing to individual PWDs to ascertain their musical responses was not significantly effective.

Objectives and Effectiveness of Professional CGs Using Singing

The primary objective of professional CGs using singing was to improve the quality of life. Most frequently this was through assisting PWDs with ADLs, but also encompassed reducing agitation and facilitating social interaction.. Smith⁷⁵ praised a nursing assistant who successfully persisted in coaxing a PWD to feed himself again by singing to and with him during meals. Perry⁷⁴ found that an RN who had recognized some hymn lyrics in a PWD's highly agitated verbalizations, sang to him every hymn she could remember. This was effective in calming the PWD where previous interventions, including medication, were not.

The articles by Gotell, Brown, and Ekman and Brown, Gotell, and Ekman³⁻⁷ (hereafter referred to as the Swedish studies) were interested in the effects of CGs singing to individual PWDs during ADLs (morning bathing and dressing) from the perspective of both professional CGs and PWDs. They compared verbal interaction, nonverbal interaction, and emotional expression in PWDs and their professional CGs under 3 conditions: usual care (no music), background (recorded) music, and individual live singing by the professional CG. Interactions between 5 female professional CGs and 7 PWDs (5 female and 2 male) were analyzed using both video recordings and interviews with the CGs. The PWDs were verbal and ambulatory but had an average MMSE score of 1. Although background music produced some positive effects in most participants, single instances of singing by professional CGs resulted in considerable improvements in communication, affect, and mutuality for most participants, both CGs and PWDs. Even though the songs were "familiar" and not at all instructional, the PWDs seemed to gain an understanding of their ADL tasks, replacing their more usual confusion. Although the authors acknowledged that negative emotions were sometimes expressed in the CG singing condition, overall substantial enhancement of the morning care situation was evident when the professional CGs sang to the PWDs during ADLs.

Summary of professional CGs' findings. The most common use of singing by professional CGs to PWDs was to assist them in ADLs. Singing was found to be effective during morning hygiene and eating, most commonly through changing the interpersonal dynamics of the situations. It was also a highly successful means of reducing levels of agitation, and in most

cases was effective in improving the CGs' perceptions of caregiving.

Discussion

This systematic literature review revealed that persons who sing individually to PWDs without the use of recorded music include MTs, nurses, professional CGs, and family members.

Objectives and Effects

Although MTs intentionally used singing with specific goals in mind, for example improved cognition, enhanced social functioning, and decreased agitated behaviors, nurses, professional CGs, and family members were more likely to sing almost as an offering of mutuality or to find a connection that was meaningful for the PWDs. Broadly speaking, although non-MTs seemed to work on the assumption that the pre-dementia person is "still there," the focus of MTs could be said to be more on finding out *how much* of the pre-dementia person is "still there," as well as on preserving and/or extending pre-dementia abilities. Both of these approaches fit well within a person-centered paradigm, which values individuals regardless of their functional abilities.^{20,21}

If cost-benefit is a valid measure of effectiveness, non-MTs who include individual "live" singing as part of their existing caring duties appear more favorable than MTs whose services are "extracurricular" and presumably charged at professional rates. However, MTs are trained to use the subtle elements of music, including their own vocal responses, to "tune in" to their clients and are able to modify these elements to validate and support people in their care. Caregivers without this training are unlikely to be able to interact at this level.

The Singer or the Singing?

The included studies that compared singing with a different therapeutic activity may illuminate this question. Three music therapy studies compared music (including singing) with reading^{39,40,69}: Clair⁶⁹ found no statistical difference between the 2 in eliciting alert responses from persons with late-stage dementia, although mean scores for singing were higher, lending weight to the "singing" argument. Fitzgerald-Cloutier³⁹ found singing significantly more effective than reading in holding the attention of her "wandering" PWDs, again seeming to advocate that singing is the important factor. However, Fitzgerald-Cloutier³⁹ admitted that cognitive decline may have been partly responsible for this outcome, as the music condition was tested first for 3 weeks, followed by a week's break, and then reading. Groene⁴⁰ also found music (including singing) more effective than reading in decreasing PWDs' wandering. These 3 music therapy studies would seem to indicate that singing appears to have its own power, because the same person performed other, less-effective interventions.

The studies by Pollack and Namazi⁷² and Groene⁴⁰ both alluded to the dilemma of knowing whether the singer or the

singing was effective: Groene⁴⁰ noted that his intention was to "include a caring professional in both treatment conditions, knowing that, in all probability, the presence of the professional would yield closer scores . . . than a treatment versus a no-contact control group . . ." (p152) Pollack and Namazi⁷² reflected that, "[t]he interpersonal relationship with the therapist may have been a key factor influencing subjects to seek further social contact after music sessions." (p65). Comments like these suggest that the presence of the singer ("therapist," "caring professional") may be more important than what that person is doing (eg, singing).

Music therapists are trained to provide music that matches, supports, or modifies their clients' states and to understand clients' musical responses, thereby being able to individually tailor interventions to the client in the moment. Even so, the MT in Ridder and Aldridge⁴³ "tried out" (p99) different songs with their case study, since there was no musical history available. It seems entirely plausible that professional CGs can do at least this much: In Perry's⁷⁴ case, an RN was eventually able to recognize songs and use singing that was appropriate to and effective in the situation. Perhaps sensitivity rather than qualifications is the requirement for effective singing with PWDs?

If PWDs are being cared for within a person-centered framework, then effective interventions will emanate recognition, respect, and trust between them and their CGs in a paradigm that values mutuality.²¹ In many of the included articles, singing was depicted as an effective facilitator of mutuality. Music therapists Clair⁷¹ and Ridder and Aldridge,⁴³ and the nurses cited in Perry⁷⁴ and the Swedish studies³⁻⁷ all referred to mutuality in their descriptions of beneficial interpersonal interactions between a singer and a PWD. These examples illustrate that both MTs and non-MTs are able to use singing effectively to connect with PWDs in meaningful ways, lending weight to the singing argument.

Music therapists Ridder and Aldridge⁴³ and the professional CGs in the Swedish studies³⁻⁷ used similar methods in their studies, affording the current study a parallel for comparison. Both examined one-to-one unaccompanied singing using video recording and triangulation in data analysis (with Ridder and Aldridge⁴³ also taking physiological measures), yet the results of these studies were quite different: after 20 music therapy sessions over 4 weeks with "Mrs F," Ridder and Aldridge⁴³ found some significant decreases in agitation after music therapy as measured by heart rate and experienced some "dialogical" (p101) moments during therapy. Mrs F's antipsychotic medication was also reduced. The authors commented that this type of music therapy

is intensive individual work. It takes time to build up a therapy course with people with attention and concentrations [*sic*] problems, and it takes time to establish a communicative relationship.^{43(p103)}

This concurs with the MT Clair,⁶⁹ who also found that persons with late-stage dementia responded to music therapy and other interventions slowly over time, and that "any attempts to

determine their response patterns must be one in a series of sessions.”^(p244) Ridder and Aldridge⁴³ sought to bring structure and meaning to the session through the use of some instructional songs (eg, “hello” and “goodbye” songs describing events in the session).

Conversely, in the Swedish studies³⁻⁷ considerable gains were made in the areas of communication, understanding, and affect in single sessions. In contrast to Ridder and Aldridge,⁴³ the musically untrained professional CGs in the Swedish studies³⁻⁷ did not include instructional words in the songs they sang (using folk and drinking songs), and yet the PWDs’ compliance, apparent understanding of the situation’s requirements, and the mutuality in the interactions with the CG appeared at a considerably higher level than that of Mrs F. The assertion of Ridder and Aldridge⁴³ that the MT and patient “make sense” together when there is a “fit” between the actions and responses of the MT and patient^(p102) seems equally applicable to the Swedish studies³⁻⁷: “. . . singing greatly diminished the necessity for CG instruction and increased patient understanding and cooperation.”^(p212) Why might this have been so?

Are the differences in responses accountable solely through the possibility of different diagnoses (FTD compared with unspecified types of dementia), or different stages of dementia? Or might it be that the PWDs in the Swedish studies³⁻⁷ had more musical exposure throughout their lives than did Mrs F (who, according to her sister, “did not relate to music”^{43(p97)})? Conversely, “all of the patients in the [Swedish] study came from a background with a strong tradition of folk music and folk singing.”^{5(p213)} Without further information regarding the musical background of the other 5 participants in the study of Ridder and Aldridge⁴³, or the types of dementia in the Swedish studies, conclusions cannot be drawn.

A third possible explanation for the fact that meaning and understanding were more quickly established in the situations described in the Swedish studies³⁻⁷ may be that the context (morning hygiene) was more recognizable to the PWDs than a music therapy session. One of the primary differences between the 2 settings seems to be that Ridder and Aldridge⁴³ examined the effects of a MT *in a music therapy context*, whereas the Swedish studies³⁻⁷ observed CGs *in caring contexts*. This seems to imply that a music therapy session is a new and unfamiliar construct for PWDs, and that singing itself can be therapeutic.

Is it possible that the words Groene⁴⁰ used (caring professional) may be transposed across many disciplines, including professional and nonprofessional CGs? If so, might this suggest that any person may successfully engage a PWD through singing? Furthermore, does “effectiveness” depend not so much on the qualifications of the singer, or even the singing itself, but on the PWDs’ perception of the situation?

Discussion of Hypothesis

Music therapists certainly have a role to play in caring for PWDs, particularly in facilitating situations where shared musical activity can lead to social interaction, cognitive

stimulation, and self-expression. Behavior modification through music therapy is another area where MTs may be the individuals whose qualifications and skills are most suited (eg, Christie⁶⁸). However, as a cure for dementia is yet to be found,⁷⁸ the scope for rehabilitation is severely limited, whereas the need for individual care increases as the disease progresses. Therefore, it would seem advisable to empower as many individuals as possible, who interact with PWDs to use all means at their disposal to optimize care. Singing can be an accessible resource to most if not all CGs (professional and nonprofessional), which has previously been largely overlooked, but which may yield benefits far in excess of the effort required.

Conclusion

Summary

This review has revealed that individuals who have been documented as singing individually with PWDs include MTs, professional CGs, and nonprofessional CGs (family members initially facilitated by an MT). In the articles analyzed, studies by MTs addressed more specific goals through individual singing with PWDs than did professional and nonprofessional CGs, including cognitive, behavioral, and social areas, with varying levels of effectiveness. Professional and nonprofessional CGs were more generally focused on building connections and improving caregiving experiences for both PWDs and CGs, with overall positive results. The primary question—the singer or the singing?—was revealed as complex. The examples of professional and nonprofessional CGs singing to PWDs seem to illustrate that singing can be effective in improving the quality of life of PWDs, regardless of the qualifications of the singer. However, it may be that the effectiveness of any singing intervention depends on both the goals of the “singers” and the perceptions of the PWDs involved.

Limitations

Conclusions regarding the instances and effectiveness of individuals singing with PWDs are limited by the small number of articles suitable for inclusion. These limitations were largely the result of English language and publication biases. A more comprehensive comparison of various individuals singing with PWDs would no doubt have resulted from a multilanguage search. Negative findings may also have been revealed if unpublished studies had been obtained. The fact that only one of the included articles⁴⁰ could be classified as a randomized controlled trial also limits the generalizability of the findings, as does the small number of participants reported in most studies. The lack of standardized measures of both the functioning levels and outcomes in PWDs has also made comparisons difficult. Obtaining self-report from PWDs is a further challenge in weighing the efficacy of individual live singing.

Implications

Although music therapy has a lot to offer PWDs, particularly in terms of cognitive, behavioral, and social stimulation and interaction, it seems obvious that professional and nonprofessional CGs are more frequently in contact with PWDs, and therefore able to affect their quality of life more easily. From an analysis of the included studies, it appears that CGs singing to and with the PWDs in their care were often more effective than MTs' efforts. It may, therefore, be appropriate for MTs to focus some of their efforts in dementia settings on empowering professional and nonprofessional CGs to sing to the PWDs in their care, thereby multiplying the benefits music can bring. It may be that MTs will do the greatest good to PWDs by encouraging and empowering their CGs to sing (sensitively) while caring for them.

Appendix

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