

# Can Caregiver Singing Improve Person Transfer Situations in Dementia Care?

Music and Medicine  
4(4) 237-244  
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sagepub.com/journalsPermissions.nav  
DOI: 10.1177/1943862112457947  
http://mmd.sagepub.com



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## Abstract

Everyday person transfer situations involving persons with dementia and their caregivers can be reciprocally problematic. Group interviews with professional caregivers were conducted, focusing on the caregivers' experiences of singing during person transfer situations with residents with dementia, and a qualitative content analysis was performed. The caregivers expressed that compared to everyday transfer situations without singing, there were obvious differences during singing. When the caregiver sang, communication was mutually enhanced between the caregivers and the residents. Caregivers reported that residents seemed to show their true personalities, were able to move more fluidly and easily, seemed to better understand what was going on, and reacted with a spirited cheerfulness. The caregivers experienced themselves as more competent in and motivated to provide care in addition to positive emotions and moods. Caregiver singing during transfer situations may be one of several suitable non-pharmacological interventions that can be utilized when caregivers need to assist persons with dementia in transfer.

## Keywords

caregiver singing, dementia, intervention, music, person transfer situations

## Background

Dementia diseases are the world's most disabling and burdensome health conditions worldwide. In 2005, about 24.3 million persons were afflicted with a dementia-related disease, and it is estimated that each year there will be about 4 to 6 million newly diagnosed patients with dementia.<sup>1</sup> In the United States about 5 million persons have dementia, and an equal number of people face the condition in Europe.<sup>2</sup>

It is known that persons with dementia can react with agitation and aggression, and antipsychotic drugs are suggested to curb reactions. However, these drugs can have adverse side effects and increase the risk of death.<sup>3</sup> It is further suggested that persons with dementia being treated for depression with selective serotonin reuptake inhibitors (SSRIs) had a high risk of falling, and the combination of SSRIs with hypnotics and sedatives further increased the risk of falling.<sup>4</sup> In light of such risks it is suggested that nonpharmacological interventions should be tested in the first instance.<sup>5</sup> Consequently, it is urgent to identify what kind of nonpharmacological interventions can be used.<sup>6</sup> How the caregiver/therapist communicates with persons with dementia is crucial to the results that will be obtained when nonpharmacological interventions are employed.<sup>7</sup> It has been suggested that the most effective means of enhancing pleasure in persons with severe dementia is to let them interact with a human being. Additionally, inviting persons with dementia to sing along with a person on a video or to recorded music can increase their likelihood of reacting with pleasure.<sup>8</sup>

Music interventions can have the potential to reduce agitation in persons with dementia in the short term.<sup>6</sup> In music sessions led by music therapists, Raglio et al<sup>9</sup> suggest that behavioral and psychological symptoms of dementia (BPSD) decreased significantly in persons with dementia, and when listening to recorded personalized music, they report that agitation and depression diminished in persons with dementia.<sup>10</sup> However, Cooke et al<sup>11</sup> suggest that verbal aggression increases significantly over time in persons with dementia. When using music in nursing care, Gerdner and Schoenfelder<sup>12</sup> suggest that letting persons with dementia listen to individualized music reduces agitation and that the intervention can easily be implemented by trained staff or family members. When individualized music is played during mealtime, research has shown indications that food intake can increase and BPSD can be reduced in persons with dementia; at the same time the caregiver's workload can be eased.<sup>13</sup>

It is furthermore suggested that the use of individualized background music during morning care routines can enhance

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verbal and nonverbal communication between persons with dementia and professional caregivers.<sup>14</sup> While it has been argued that simply listening to individualized background music can have positive effects, it has been further suggested that persons with dementia prefer songs that are sung for them or together with their caregivers, so-called music therapeutic caregiving,<sup>15</sup> and as such, this communication/intervention can be suggested. During music therapeutic caregiving, verbal communication consists of singing songs, excluding verbal instructions and commands. Persons with dementia react as they are cognitively aroused, and speech is ameliorated while agitated behaviors tend to be abated.<sup>16-19</sup> Caregivers react with enhanced positive emotions and moods.<sup>20-22</sup> Caregivers describe persons with dementia as seemingly more present and as showing few if any agitated reactions.<sup>23</sup> Caregivers further experience personal well-being and the sense that they have found the key to communicating with persons with dementia.<sup>24</sup> Additionally, during music therapeutic caregiving and morning routines both persons with dementia and caregivers interact with improved posture, body movements, and sensory awareness.<sup>25</sup> In a single case study conducted by Hammar et al,<sup>26</sup> the researchers observed that during humming the resident and the caregiver reacted with slightly enhanced positive emotions and that the resident ate more than during feeding situations without humming.

As a dementia disease progresses persons with dementia lose their ability to perform most common activities related to daily living. The ability to execute motor activities decreases, and in the late stage of dementia persons with dementia need transfer help from a caregiver both during the day and at night. At this stage of the disease, persons with dementia are often living in a special care unit.<sup>27</sup> Currently only a few studies have been conducted that focus on person transfer situations in dementia care. One study reports that it is of great importance for persons with dementia to be able to move, and professional caregivers make great efforts to help persons with dementia to maintain their mobility.<sup>28</sup> In another study, it is suggested that depending on the situation, caregivers can use several methods to help persons with dementia to a standing position.<sup>29</sup> Wangblad et al<sup>30</sup> suggest that when caregivers assist persons with dementia during person transfers, they report that care strain is not related to the weight of those they are assisting but to communication difficulties. Caregivers use communication strategies to reduce misunderstandings stemming from the persons' with dementia cognitive decline, and specialized training in person transfer tasks is needed for caregivers working in dementia care. A fourth study reports that caregivers experience that they and persons with dementia reciprocally struggle when the 2 of them are involved in transfer tasks during everyday activities. Additionally, the study reports that caregivers use verbal and nonverbal communication strategies during person transfers; environmental factors matter, and when persons with dementia fall, the goal of the transfer situation becomes unobtainable.<sup>31</sup> To our knowledge, no study has been conducted to investigate caregivers' experiences of singing during person transfer situations in

everyday dementia care. The aim of this study was to illuminate professional caregivers' experiences of using singing during everyday person transfer situations in dementia care.

## Research Design and Method

This study is part of a larger project investigating transfer situations between residents with dementia and their professional caregivers. The project was approved by the Regional Ethical Review Board in Uppsala, Sweden. Written and oral information about the whole project was given by the first and second authors (EG and CT) to next of kin and the staff at the special care unit for 80 residents in an urban area in Sweden. Proxy consent was obtained from 19 residents' next of kin. In all 17 caregivers participated after giving their written and informed consent. The caregivers and the residents participated in the first part of the project, ordinary transfer situations without singing, for 2 weeks. The results from these situations are described in a previous article.<sup>31</sup> After this initial period, they participated in a 4-week singing intervention carried out during transfer situations. The project concluded within a 2-week period during which participants returned to ordinary transfer situations without singing. Before the singing intervention began, CT contacted the 19 participating persons with dementia next of kin and asked about the persons with dementia singing and music preferences. These preferences guided what songs were chosen. CT was educated in music therapeutic caregiving,<sup>32</sup> having participated in a university course given at Mälardalen University. The course was developed in collaboration between music science and health sciences and covers subjects such as music and health, dementia diseases including BPSD, music and dementia, music therapeutic caregiving, other nonpharmacological methods, singing and voice instruction, and singing about 20 appropriate songs that older people prefer, such as old children songs, old popular songs, and hymns. The primary course instructors are singing and voice instructors. CT coached the participating caregivers in how to sing, and together they selected songs they could sing and which fit with the residents' preferences. The songs consisted of children's songs and old popular songs. CT was present at the special care unit 4 to 5 days a week during the full 4 months of the project duration. During the intervention period she continuously instructed the caregivers in how to sing. In this article, the caregivers' experience of singing during transfer situations is described.

Group interviews inspired by focus group techniques were conducted, because the researchers wanted to capture a group of professional caregivers' experiences in person transfer situations during singing in dementia care. Group interview is suitable when interviewing a group with similar experiences. In such interviews, the members can react to what is being said by others and this may lead to richer and deeper descriptions of common experiences.<sup>33</sup> In these 2 group interviews, CT acted as interviewer and EG as the moderator. To reach as many caregivers as possible a joint interview<sup>34</sup> and an interview with a single caregiver were also conducted. A total of 17 caregivers

**Table 1.** Category: Reciprocally Spirited Movements and Disposition

Subcategory	Improved mutual transfer ability	Enhanced mutual verbal and nonverbal communication	Caregivers' new experiences, emotions and moods	Singing can be both straightforward and challenging
Codes	Walking situations were easier to execute	Singing was the principal communication method	Caregivers' changed moods	Singing ability varied

participated in the whole project, but due to shift schedules and sick leave, 9 caregivers were able to participate in the group interviews. In all, 8 women and 1 man participated. Their ages were between 22 and 55 years and they had worked in geriatric care between 1 and 30 years. The group interviews lasted about 50 to 60 minutes each, the joint interview<sup>34</sup> lasted about 20 minutes, and the single interview lasted about 15 minutes. The interviews took place during spring 2010 in a conference room at the special care unit where the caregivers worked. All interviews were audio recorded. CT started the interviews with a key question, "Could you please tell us about person transfer situations with singing during transfer situations in your daily work?" This question was followed by probing questions to steer the interviews toward the aim of this study.<sup>34</sup>

In total 2.5 hours of audio recorded interviews were transcribed verbatim by CT. The transcriptions resulted in 94 A4-sized pages of text, with 1.5 spacing and a font point size of 11. EG analyzed the transcriptions using a qualitative content analysis.<sup>35,36</sup> The interviews were read through several times to grasp a sense of the whole. In the reading of the whole transcript the researchers observed that the caregivers used many strong statements to describe to considerable and significant changes they experienced during caregiver singing and the person transfer situations in contrast to their previous experiences when no singing are used. In the interviews they used statements such as "super," "we had great fun," "terrifically funny," "a huge amount of change," "tremendously happy," "easy as pie," "much more correct movements," and "much better verbal communication from the residents." Additionally, the caregivers narrated 3 different perspectives in all of the interviews: their own inner experiences, how they experienced the residents, and how the caregivers experienced mutual involvement between themselves and the residents. These 3 perspectives structured how the researchers divided the text into meaning units that were condensed. The condensed meaning units that were steered by the 3 perspectives were then abstracted and labeled with codes. The various codes, including the 3 perspectives, were compared based on similarities and differences and sorted into 4 subcategories and 1 category. Examples of codes, subcategories, and category are shown in Table 1.

## Results

### *Reciprocally Spirited Movements and Disposition*

In this study 1 category was formulated: reciprocally spirited movements and disposition. Four subcategories were formulated: improved mutual transfer ability; enhanced mutual verbal and nonverbal communication; caregivers' new

experiences, emotions, and moods; and singing can be both straightforward and challenging.

The caregivers described what they felt were obvious differences compared to how transfer situations took place without singing. Caregivers reported that during caregiver singing there was an intertwined influence upon ability to transfer and to express verbal and nonverbal communication. The residents' true personalities appeared to be more perceptible. In the transfer situations the residents and the caregivers moved their bodies in unison. At the same time, the residents were more able to walk and perform expected movements over a stretch of time. The caregivers sang songs and excluded information about what was going on, and yet the residents understood what was happening. Both the caregivers and the residents expressed enhanced positive emotions and moods. Singing during transfer situations could be difficult for caregivers because of the strain of singing and performing movements simultaneously. They reported that it would have been valuable if they had been taught how to improve their singing.

### *Improved Mutual Transfer Ability*

According to the caregivers there were obvious improvements in the residents' ability to move compared to what they experienced without singing. During caregiver singing the residents were able to move with their body upright, they demonstrated more body strength, less effort seemed to be required, they wobbled less, moved more quickly, and participated in the transfer in an improved manner. Sitting and moving to a standing position appeared to be simpler for them. They could turn around on steady legs in an independent manner, at the same time their bodies seemed to be less stiff.

They were better able to perform expected complicated movements over a period, displayed an ability to take initiative, and seemed to independently perform necessary movements. The residents' ability to move their bodies in response to expectations seemed to be enhanced once the caregiver had sung during several transfer situations.

One caregiver said,

When I was singing it was simpler for him to get out of bed and it was the same thing when we walked out of his room. He moved with a lighter step. (caregiver 6d)

The caregiver reported that the resident was influenced by the caregiver singing to perform his movements in a more enhanced manner.

Additionally, during caregiver singing the caregivers' own movements and use of their bodies were affected. Because

residents could move more independently, caregivers provided less physical support. The caregivers also explained that their actions and those of the residents' were more in tune when they sang, as they moved rhythmically, at best as if they were marching in time to the music.

A minority of the caregivers experienced very little or no influence upon body movements during transfer with singing, either in the residents or in themselves. Overall, however, the caregivers reported that caregiver singing facilitated a significant improvement in the manner in which transfer tasks took place.

### *Enhanced Mutual Verbal and Nonverbal Communication*

During transfer when singing, most of the caregivers explained that their verbal communication largely consisted of singing. They sang the texts of children's songs or other songs about stars, animals, nature, and so on. The residents often sang along with the caregivers. In most situations, it was sufficient just to sing. In some cases, they verbally informed the residents of what to do. The caregivers stated, however, that they rarely had to repeat information or use commanding language in relation to what was going on when singing during transfer, which was usual during transfers without singing. Additionally, during singing it was sufficient for the caregivers to gesture the direction in which residents should move.

According to the caregivers, during caregiver singing the residents expressed themselves in a remarkably different way. The residents were able to express more of their true personalities. They seemed to be more concentrated, collected, and alert at the same time as they reacted with happiness, delight, enthusiasm, humor, and a spirited cheerfulness. They joked and smiled and seemed to be more aware of the caregivers and other persons and the environment. The residents expressed less physical pain, if any pain at all, nor did they express fear of falling, which they often did during transfers without singing. None of the residents reacted with anger during caregiver singing, which was known to sometimes take place during transfers without singing. During caregiver singing the residents ability to speak was improved; at the same time they seemed to intuitively understand the nonverbal gestures of the caregivers.

One caregiver explained:

The situation becomes more joyful, even if they (the residents) joke and say that I can't sing, we laugh together and the whole situation becomes positive. (caregiver 4b)

The caregivers stated that during singing the residents could listen to and joke about the caregiver's singing ability and there was a reciprocal experience of the transfer as positive.

### *Caregivers' New Experiences, Emotions, and Moods*

During singing the caregivers' emotions and moods were affected. During singing in transfer situations, they felt more motivated to provide care. They escaped feelings of helplessness and instead experienced well-being and self-confidence

when they succeeded in helping the residents to transfer without seeing them express pain or fear, frequent elements of transfers without singing. Caregivers themselves enjoyed singing and experienced calmness, happiness, and a spirited disposition and felt an enhanced togetherness with the residents. Additionally, the caregivers felt they radiated peace to the residents, both physically and spiritually. When singing, the caregivers were so delighted to see glimpses of the residents' true personalities. The caregivers intuitively felt that some residents wanted to be sung to by the caregivers.

The caregivers said they were amazed that singing seemed to be sufficient for providing information and that they did not need to provide careful verbal information and commands during the singing transfer. Residents who were advanced in their dementia also enjoyed being sung for and singing together with the caregivers.

One caregiver said,

It gets easier, it breaks up the everyday routines. . . . Everybody calms down, you break with all the routines . . . They (the residents) stop thinking about their aching knees . . . (caregiver 4b)

This same caregiver reported that singing during transfer seemed to add new improved dimensions to everyday care.

Adding to this, the caregiver further explained that next of kin felt their loved one with dementia was happier during singing and transfer. In turn, next of kin were more pleased with the caring.

### *Singing Can Be Both Straightforward and Challenging*

Most of the caregivers enjoyed singing. Some of them felt tense initially, but after a while they sang without hesitation and with enjoyment during the transfer task. Sometimes it could be difficult to sing and engage in strenuous physical movements at the same time. In general the caregivers found it easy to find suitable songs. To help the residents to understand what time of the year it was, the caregivers sang songs that reflected the season. They experienced that it was helpful to sing songs that they could easily walk in pace to. Songs in waltz time did not work. Some of the songs they sang were from their childhood, some songs they found in old song books, on the Internet, or had heard from a troubadour who regularly sang with the residents. Sometimes the residents suggested what song should be sung.

One caregiver said,

Some of the songs they (the residents) like very much. I do prefer to sing such songs. (caregiver 10b)

The caregiver reported that she got to know what songs the residents preferred to listen to or sing along with.

One caregiver who had grown up in a foreign country and with a mother tongue that was not Swedish sang with a resident who had the same mother tongue as the caregiver. The 2 of them enjoyed the singing very much. It also happened that the

caregiver sang in her mother tongue to Swedish residents who did not know her language. They enjoyed being sung for even though they did not understand the text of the song being sung.

After a time, the caregivers started to hum before and as they approached the resident. Often the resident responded by humming along and the 2 parties could approach each other in a satisfactory manner. Some residents who had a reduced speaking ability and who were used to being sung for during transfer urged the caregiver to begin singing by using facial expressions.

When the caregivers experienced that the residents participating in this intervention with singing reacted in a positive way, the caregivers also sang with other residents living at the special care unit. These residents were positively influenced as well. The caregivers suggested that humming when approaching residents who were confused and upset was a good way to start the day. When caregivers hummed for the residents, their negative and confused reactions seemed to disappear, and the resident looked to be in a good mood.

A minority of the caregivers were very critical of their own singing ability and shared that they had a very low self-esteem. They reported that in their experience of singing during transfer there was no or very little change in the residents or themselves.

Although the caregivers did their best when singing, they expressed a desire to learn how to sing better and to learn more songs that the residents liked. The caregivers had been given some instruction in how to sing by CT. Additionally, CT was present at the special care unit during the project and they could discuss the singing with her. Nonetheless, even those caregivers who were vulnerable to low self-esteem or were uncomfortable with singing would prefer to have more training.

## Discussion

The aim of this study was to illuminate professional caregivers' experiences of using singing during every day transfer situations in dementia care. The results revealed that caregiver singing seemed to facilitate the process and the person transfer situations could be successful. This is the first study that we know of that investigates caregiver singing during every day person transfer situations involving professional caregivers and residents with dementia. The results diverge from studies carried out to study everyday caring with ordinary verbal and nonverbal communication, in which transfer situations are reported to be mutually problematic for caregivers and their charges. Common issues identified in these latter studies are communication failures between caregivers and persons with dementia, the difficulties and limitations persons with dementia have when moving, the potential of falling can impede the goal of a transfer situation.<sup>30,31</sup> In this study the caregivers reported that the residents showed improvements in posture, balance, leg strength, and the ability to perform complicated movements including walking across a space. This is in line with Götell et al,<sup>25</sup> who suggested that during caregiver singing and morning routines, posture, movements, and sensory awareness were improved. In this study, the verbal communication was altered

from the earlier study; the dialogue principally consisted of song lyrics referring to things other than the transfer situation. Similar results were suggested in previous studies using singing during morning routines in dementia care.<sup>16-19,21-24</sup> In this study the participating caregivers and residents reacted with positive emotions and improved moods. Previous studies using caregiver singing in dementia care suggested the same.<sup>20-22,37</sup> Furthermore, in this study, caregivers meant that they were able to communicate with the residents in a more positive way. Similar results were suggested by Hammar et al.<sup>24</sup> In this study, the caregivers explained that they occasionally used humming to communicate with some residents who reacted with negativity and confusion in the morning, and felt that these reactions abated and that instead the residents seemed to be in a good mood. Humming as a way to communicate in dementia care was also suggested by Hammar et al,<sup>26</sup> as it can promote enhanced positive emotional reactions in both a person with dementia and their caregiver.

It has been suggested that use of music and singing in dementia care should be regarded as an adjunct to music therapy sessions led by music therapists.<sup>15,38</sup> However, music therapy sessions can be limited as they take place during a short period, and the music has a short-term effect.<sup>6</sup> Interventions with use of music and singing can probably be applied during day and night care. Studies have suggested that individualized or personalized music listening should be used as this has positive effects on persons with dementia.<sup>10,12</sup> Such interventions can be important in everyday life in the special care unit. However, for situations involving close contact and communication between caregiver and persons with dementia, for example during personal care, we suggest that caregiver singing, music therapeutic caregiving,<sup>15,38</sup> is to be preferred. It may promote improved communication between caregivers and persons with dementia, which is crucial when implementing nonpharmacological interventions.<sup>7</sup> Additionally, we suggest caregivers' singing for or together with persons with dementia makes it possible for persons with dementia to closely interact with a caregiver, which is suggested to be the preeminent method for enhancing persons with dementia pleasure.<sup>8</sup>

In this study the caregivers reported that it could be difficult to sing during transfer because transfer situations can be physically demanding. Moreover, most of them expressed a desire for more training in how to sing and help to expand their repertoire. Therefore, we suggest that education for caregivers in how to sing and use music in dementia care may enhance the quality of dementia care. Such education has been suggested by Sung et al.<sup>39</sup> This study is an interdisciplinary research collaboration between nursing and physiotherapy researchers. To teach singing in dementia care, we invite further interdisciplinary collaboration with music instructors specialized in singing, or music therapists familiar with the dementia care context. In fact, such collaboration was suggested in a review by Chatterton et al,<sup>40</sup> who urged music therapists to empower professional caregivers to sing sensitively during caring activities.

In this study, caregivers reported intertwined results of the influences of singing: reciprocal changes in body movements

for caregivers and residents and changes in verbal and nonverbal communication and in emotions and moods. Currently there is an interest in why singing can positively affect persons with neurological disorders.<sup>41</sup> We argue that the results of this study can contribute to the discussion of how singing and music may influence persons with dementia, specifically. Spiro<sup>42</sup> argues in a review of music and dementia that it seems that the power of music as a therapy for dementia may lie in a number of sources: superior retention, attention, arousal, bypassing or triggering failing capacities, and underlying physiologically, neurological, or socially driven emotional effects. Further studies are needed to expand, confirm, or reject what the researchers presently know.

### **Strengths, Limitations, and Recommendations for Further Research**

Group interviews provided a primary source of data in this study. This gave us the opportunity to capture the groups' experiences of the caregivers helping residents with dementia with transfer during every day dementia care. The participants knew each other well, which allowed them to honestly recount successful and unsuccessful experiences in the open discussions taking place during the interviews. CT was available at the special care unit about 4 to 5 days every week during the entire 4-month period of the project, which may have led to the caregivers becoming familiar with her. We believe this encouraged the caregivers to participate for the duration of the study. Of 17 possible caregivers, 9 contributed with commentary about their experiences in the group interviews. We doubt that the result would have been different if all of them had participated, because there were so many similarities in the narratives given in the groups. One consequence of using focus group interviews in qualitative studies is that the results are generally broad in contrast to those derived from individual interviews, because the aim of the focus group is to capture the group's experience of something and not the individual's experiences.<sup>34</sup> So to capture deeper individual experiences of caregivers' every day experiences of music therapeutic caregiving during person transfer situation, we suggest individual interviews should be conducted. To analyze the data, a qualitative content analysis<sup>35,36</sup> was performed. This allowed the authors to structure the text and to move between different levels of abstraction. EG, the first author, had performed and supervised previous studies involving music therapeutic caregiving<sup>14,43</sup> in dementia care. Therefore, she had to be aware of her pre-understanding and carefully read the text emanating from this study on its own merits. However, neither she nor the other authors had previously studied person transfer situations in dementia care, so the issue was new for all of them. To increase trustworthiness in this study, the results were discussed by all the authors. After discussions and changes in the analysis and written texts, consensus was reached. The results of this study can be seen as one possible interpretation of a group of caregivers' experiences during caregiver singing and person transfer in dementia care.

This is the first study we know of that describes caregivers' experiences of transfer situations during singing with residents

with dementia living at a special care unit during a period of 4 weeks. A qualitative content analysis method was used to gain a deeper understanding of the caregivers' experiences. More interview studies are needed to confirm or reject our results. Quantitative studies are also needed to confirm the reliability of the results using alternative methods. We suggest that experimental case studies could be valuable for measuring changes at the individual level. To measure results on a group level, we suggest that future research involves an intervention period that is longer than 4 weeks. Randomized controlled trials or quasi-experimental trials should be carried out to investigate whether the frequency of falls during transfer is reduced when music therapeutic caregiving is used. If such studies lead to affirmative results, the quality of dementia care can probably be improved. Residents with severe dementia commonly need help from caregivers during transfer. Therefore, we suggest that researchers include caregivers in the design of person transfer studies addressing nonpharmacological interventions. Additionally, we believe that if further research on caregiver singing during person transfer reveals that caregivers are successful in their work, they will experience a reduced workload and more positive work environment as a result. We therefore suggest that studies of caregiver work environments be carried out. To our knowledge, this is the first study to reveal that caregivers feel that singing during person transfer contributes positively to the situation. However, there is an urgent need to investigate additional appropriate methods of person transfer in dementia care.

### **Conclusion**

Caregiver singing in dementia care, so-called music therapeutic caregiving, may be a cost-effective and easily implemented intervention that can reciprocally influence residents with dementia and their caregivers during everyday care activities such as transfer situations. With singing, the residents' movements were enhanced, they better understood what was going on and reacted with spirited movement and disposition. Additionally the caregivers felt more competent and motivated as caregivers, while they similarly reacted with a spirited cheerfulness. Singing during transfer may enhance the quality of dementia care. To fully use the potential of caregivers' ability to sing, they should be given training to enhance skills. Preferably, such courses should be designed in interdisciplinary collaboration between nursing/physiotherapy/music sciences.

### **Acknowledgments**

We sincerely thank the caregivers who participated in the interviews. We also thank Caroline Sutton for linguistic revision.

### **Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### **Funding**

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This study

was supported by The Knowledge Foundation, Sweden, Attendo Care, Sweden and Mälardalen University, Sweden.

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