Dancing as a psychosocial intervention in care homes: a systematic review of the literature

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Background: There is a need to find meaningful and engaging interventions to improve mood and behaviour for residents of care homes. The demand on care staff might diminish opportunities for them to encourage these activities. Staff anecdotal information attests that dancing as an activity improves mood in residents and staff. Hence, the importance of investigating what dancing brings to the care home social environment.

Aims: To provide a systematic review of the evidence from studies related to dancing interventions for older people with dementia living in care homes.

Method: Electronic databases were searched. Previous reviews were also included, and recognised experts were consulted up to January 2012. Inclusion criteria considered study methodology and evidence that the impact of the dance intervention had been measured.

Results: Ten studies were identified that satisfied the inclusion criteria: seven qualitative and three quantitative. Studies used different approaches such as therapeutic dance, dance movement therapy, dance therapy, social dancing and psychomotor dance-based exercise. There was evidence that problematic behaviours decreased; social interaction and enjoyment in both residents and care staff improved. A few adverse effects were also acknowledged.

Conclusion: The evidence on the efficacy of dancing in care homes is limited in part owing to the methodological challenges facing such research. This review aims to raise awareness of the possibility of implementing dance work as an engaging activity in care homes. We shall also consider options for future dance work research as a means to encourage relationships and sensory stimulation for both residents and staff. Copyright © 2012 John Wiley & Sons, Ltd.

Key words: long-term care; nursing care; care homes; psychosocial interventions; dancing; dance work; dance-based exercise; dementia

History: Received 11 April 2012; Accepted 30 October 2012; Published online in Wiley Online Library (wileyonlinelibrary.com)

DOI: 10.1002/gps.3913

Introduction

In 2007, an estimated 700,000 older people had dementia in the UK, of whom 424,378 (61%) lived privately in the community and 244,185 (35%) lived in care homes (Albanese et al., 2007). By 2010, the number of dementia diagnoses had increased to 820,000 (Luengo-Fernandez et al., 2010). Similar increases in prevalence are seen worldwide (ADI, 2009). Despite promotion of the practice of person-centred care, implementing and embedding activities for both residents and care staff in long-term care remains a challenge. Harmer and Orrell (2008) found that people with dementia considered as meaningful
social activities those involving reminiscence, music and family. The demands of care in this sector, where residents experience complex health needs, lead care staff to spend less time promoting activity and stimulation (Froggatt et al., 2009). This lack of time, lack of interest and appropriate staff training might be obstacles to these activities (Palo-Bengtson and Ekman, 1997). There remains an imperative to look for interventions that might promote well-being in residents and satisfaction and enjoyment in care staff. We have identified that a broad range of activity based interventions are emerging (Livingston et al., 2005; James and Fossey, 2008). However, this review is restricted specifically to the role of dancing as an intervention for people with dementia living in care homes.

Music and dance are often incorporated into activities for people with dementia who are in long-term care. This is termed ‘dance therapy’. It has been introduced in some care homes with the objective of improving the quality of life of residents. Dance research has highlighted improvements in physical health and shown increases in social activity among healthy older adults (Silva Lima and Pedreira Vieira, 2007; Bertram and Stickley, 2007; McKinley et al., 2008; Keogh et al., 2009). A longitudinal study also reported that dancing reduced the risk of developing dementia (Verghese et al., 2003).

A meta-analysis of studies using dance movement therapy (DMT) reviewed papers across different populations (Ritter and Graff, 1996). The benefits reported with older adults were on activities of daily life, self-esteem, motion and body image. However, the statistical analysis regarding the average effect size for older people was unclear and whether these findings extend to people with dementia was uncertain. Early work investigating the benefit of dance on dementia recognised that a dancing intervention provided a source of sensory stimulation and improved self-image in five women with dementia (Bower, 1967).

Since the 1980s, organisations or independent dance therapists have worked in this area, introducing dance to long-term care settings (Greenland, 2009; Heymanson, 2009; Lawrence, 2009). Anecdotal reports of the benefits of dancing in care homes (Cormier Parsons, 1999; Hirsh, 1990), such as the use of line dance (Hayes, 2006), circle dance (Jerrome, 1999) or ballet (Lehner, 2006), have suggested that the sense of togetherness and socialisation have improved in people with dementia. Dancing for people with dementia has also been researched in day centres and hospital settings, and results have shown effects on reminiscence (Coaten, 2001, 2002; Arakawa-Davis, 1997), decrease in behaviours that challenge, promotion of person-centred care (Kindell and Amans, 2003) and the emergence of group identity (Donald and Hall, 1999). The aim of this systematic review is to consider the evidence and its quality regarding the efficacy of dance studies for people with dementia who are living in long-term care homes.

Methods

Search strategy

Box 1 shows the databases that were searched to identify relevant articles published from 1967 until January 2012. The following key words were included: ‘dance therapy’, ‘dance movement’, ‘dancing styles’, ‘psychomotor dance-based’, ‘psychomotor intervention’, ‘social dance’, ‘tango’, ‘therapeutic dance’ and ‘waltz’; and these were combined with ‘Dementia or Alzheimer’s’.

Additional search strategies

Supplementary searches were conducted using reference lists of identified papers, reviews, thesis and dissertation databases, that is, Electronic Theses Online System (EthOS-Beta) and Australian Council for Educational Research (ACER). A general web search using Google was conducted. Additional hand literature searches of conference proceedings were also

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**Box 1** Search databases.

AgeInfo
Ageline
CSAllumina
EBM Reviews
EBSCO-CINAHL (1980-2012)
EMBASE (1988-2012)
IB Web of Knowledge
LILACS (1983-2012)
OVID-Medline
SCOPUS
ZETOC

undertaken, along with checks of references in the American Journal of Dance Therapy and Revista Iberoamericana de Psicomotricidad.

Inclusion criteria

We included all peer-reviewed literature in English and Spanish. Papers had to refer to older adults with dementia of any type, and the aims of the study had to be specified. Any dancing style was considered. Studies had to be conducted in long-term care homes and had to include some measures of the impact of the dancing intervention or some aspect of it. Both qualitative and quantitative studies were considered, including non-controlled studies, randomised controlled trials (RCTs) and case studies.

Exclusion criteria

We excluded the following types of papers: those focused on dancing with older adults with and without dementia visiting day centres or hospitals; those focused on physical exercise to music or creative therapies not clearly specifying dancing with people with dementia; and those focused on dancing with older adults with mental health problems or illness other than dementia. We also excluded papers containing only anecdotal information on dancing interventions in dementia care homes, lacking either a theoretical framework or suitable analysis of the outcome of the intervention.

Data extraction and quality assessment

We used quality criteria from the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement for reporting systematic reviews (Moher et al., 2009), the Quality in Qualitative Evaluation framework (Spencer et al., 2003) and a scale described and used in previous systematic reviews (Forbes, 1998; O’Connor et al., 2008) to grade papers. We added a column: ‘Effective Intervention’ for a yes or no answer to inform on the outcome. The criteria address study design, participation and retention rates, measurement outcomes and statistical analysis. An algorithm generates ratings of ‘strong = 4’ (only RCTs qualify), ‘moderate = 3’, ‘weak = 2’ and ‘poor = 1’. It makes allowances for designs using repeated measures and the use of non-blinded observers. In rating study design, more information was requested from authors when published details were scarce.

Results

The process of literature selection and the results of the application of our inclusion and exclusion criteria are shown in Figure 1.

The 10 selected studies are summarised in Tables 1 and 2. Table 1 shows the three quantitative studies (Rösler et al., 2002; Hokkanen et al., 2003; Hokkanen et al., 2008), whereas Table 2 summarises the seven papers that used qualitative methodology (Palo-Bengtsson and Ekman, 1997; 2002; Palo-Bengtsson et al., 1998; Nyström and Lauritzen, 2005; Duignan et al., 2009; Ravelin et al., 2009; Guzmán-García et al., 2012). In the comments that follow, we shall discuss the results of both quantitative and qualitative studies together.

A variety of terms is used to describe dance as an intervention: for example, Dance Therapy, Dance Movement Therapy, Therapeutic dance, Social dancing and Psychomotor dance-based exercise. These definitions do not always delineate or differentiate the different concepts of dance practice. For example, ‘Dance Therapy’ does not teach a person to dance, but promotes the individual’s movement repertoire (Nyström and Lauritzen, 2005). Similarly, ‘Dance Movement Therapy’ encourages the use of creative movement and dance in a therapeutic manner using themes (Payne, 1992). ‘Psychomotor dance-based’ exercise integrates motor, emotional–affective and cognitive functions with the additional element of teaching dancing steps with the intention of promoting benefits for participants (Guzmán-García et al., 2012).

Summary of designs

One study (Hokkanen et al., 2003) used a randomised controlled methodology (RCT); one was a controlled pilot study examining the participants’ skill learning (Rösler et al., 2002); four studies were uncontrolled pilot studies evaluating the DMT sessions programme on behaviour and psychological symptoms (Hokkanen et al., 2008; Duignan et al., 2009; Ravelin et al., 2009; Guzmán-García et al., 2012); three studies were exploring dance as a caregiver intervention rather than using a therapist (Palo-Bengtsson and Ekman, 1997, 2002; Palo-Bengtsson et al., 1998); and one study explored DMT in the setting (Nyström and Lauritzen, 2005). Three studies focused on the impact of introducing dancing into the settings (Duignan et al., 2009; Ravelin et al., 2009; Guzmán-García et al., 2012). Only three studies reported the views of people with dementia and care staff regarding the dancing intervention using:
(i) questionnaires given to care staff/residents (Duignan et al., 2009); (ii) informal interviews of residents and focus groups for staff and family carers (Ravelin et al., 2009); and (iii) semi-structured interviews using grounded theory methodology with residents/care staff (Guzmán-García et al., 2012).

### Intervention duration and setting

Studies lasted from 12 days to over 16 months, with different intervention frequencies from 30 minutes once a month to 35 minutes twice a week. The environment, including features relating to health and safety, in which the dancing took place was not always described. Only two studies reported follow-up, in both cases of 4 weeks (Hokkanen et al., 2003, 2008). It is unclear whether or not the dancing continued after completion of the studies.

### Main outcomes found

A total of 100 participants were included in the studies. In one study (Duignan et al., 2009), seven participants were included without a diagnosis of dementia. As Tables 1 and 2 show, only five studies reported a formal diagnosis of dementia, whilst six studies reported the stage of dementia (from moderate to severe). Gender of participants was not fully reported. None of the studies reported attrition rates or the number of falls.

In most studies, descriptions of behavioural and psychological symptoms and of the use of medication were rare. Five studies reported recruitment of participants with behavioural and psychological disturbance and found that problematic behaviours decreased (Palo-Bengtsson and Ekman, 1997; Hokkanen et al., 2003, 2008; Duignan et al., 2009; Guzmán-García et al., 2012).

The other reported effects on a variety of variables are summarised in Table 3, such as behaviour, emotion, cognition, socialising, mobility, care staff and family members.

### Statistical analyses

Apart from descriptive statistics, only the quantitative studies provided statistical analysis of the data, as shown in Table 1. No study provided effect sizes.

### Risk of bias

There are substantial methodological problems in the selected studies. All studies were small. The RCT

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**Figure 1** Results of study selection.

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<table>
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<th>Titles and abstracts identified and screened</th>
<th>Titles and abstracts identified through other sources</th>
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<th>Studies included in quantitative synthesis</th>
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<td>n=3</td>
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<table>
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<tr>
<td>n=441032</td>
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| Anecdotal experiences n=20  |
| Dancing intervention in hospitals n=5  |
| Ineligible after contact with author n=2  |

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<table>
<thead>
<tr>
<th>Reference and country</th>
<th>Approach</th>
<th>Research design</th>
<th>Dance Style</th>
<th>Frequency</th>
<th>Study length</th>
<th>Setting</th>
<th>Participants</th>
<th>Mean age (SD) in years</th>
<th>Gender</th>
<th>Severity/type of dementia</th>
<th>Behaviour/psychological symptoms</th>
<th>Outcome measures</th>
<th>Summary of findings</th>
<th>Quality rating</th>
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<tbody>
<tr>
<td>Hokkanen et al., 2008</td>
<td>DMT</td>
<td>Randomised control trial</td>
<td>Music unspecified</td>
<td>30–45 min × 1 per week</td>
<td>9 weeks</td>
<td>Nursing home</td>
<td>29</td>
<td>Intervention group (n = 19) 79.9 years (7.7); control group (n = 10) 84.5 years (3.4).</td>
<td>22F/7M</td>
<td>Not reported/14 AD; 8 VaD; 7 non-defined types</td>
<td>MANOVA analysis with significant changes in visuospatial ability and planning at week 9 (p &lt; 0.03) and picture description task (p &lt; 0.044) from baseline to follow-up compared with control. Behaviours remained stable.</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hokkanen et al., 2003</td>
<td>DMT</td>
<td>Uncontrolled pilot study</td>
<td>Music unspecified</td>
<td>30–45 min × 1 per week</td>
<td>16 weeks</td>
<td>Nursing home</td>
<td>4</td>
<td>Not reported/14 AD</td>
<td>NPI; Cookie Theft picture and colourful pictures as a measure of narrative speech</td>
<td>Behavioural symptoms stable. Friedman’s analysis of variance across baseline, intervention and follow-up was significant (p &lt; 0.018).</td>
<td>2</td>
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<td></td>
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<tr>
<td>Rösler et al., 2002</td>
<td>Dance therapy</td>
<td>Controlled pilot study with major depression group</td>
<td>Waltz music</td>
<td>30 min × 5 days per week</td>
<td>None</td>
<td>Residential care</td>
<td>10</td>
<td>Intervention group (n = 5); 77.2 years (4.66); control group (n = 8) 78.6 (2.33)</td>
<td>Mixed design ANOVA found that AD group showed significant results in overall implicit dance score (p &lt; 0.049), smoothness of movement (p &lt; 0.044) and rhythmicity (p &lt; 0.041) compared with Major Depression.</td>
<td>2</td>
<td></td>
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</tbody>
</table>

F, female; M, male; AD, Alzheimer’s disease; VaD, vascular dementia; DMT, dance movement therapy; NOSGER, nurses observation scale for geriatric patients; NPI, neuropsychiatric inventory; GDS, geriatric depression scale; MANOVA, multivariate analysis of variance.
Duignan et al., 2009 Australia

Dance therapy

(i) Uncontrolled pilot study
(ii) Wu Tao Dance
(iii) 60 min x 1 day per week
(iv) 4 weeks
(v) None

Participants: 6

(i) Nursing home
(ii) 85.1 years no SD available
(iii) SF/1M
(iv) Not reported
(v) Agitation

Guzmán-Garcia et al., 2012 England, UK

Psychomotor dance-based

(i) Uncontrolled pilot study
(ii) Danzón Latin Ballroom
(iii) 35 min x 2 day per week
(iv) 6 weeks
(v) None

Participants: 13

(i) Residential/nursing home
(ii) 80.5 years (6.81)
(iii) 10F/3M
(iv) Moderate to severe: 8 AD; 2 FTD; 2 VaD; 1 Mixed
(v) Nine out of 13: wandering, social withdrawal; verbal/physical aggression

Nyström and Lauritzen, 2005 Sweden

Dance therapy

(i) Exploratory
(ii) Classical and African music
(iii) Unspecified minutes x 1 day per week
(iv) 10 weeks
(v) None

Participants: 7

(i) Nursing home
(ii) 70 years (SD not reported)
(iii) 6F/1M
(iv) Moderate to severe/ unspecified type
(v) Speech difficulties

Palo-Bengtsson and Ekman, 2002 Sweden

Social dancing

(i) Controlled study
(ii) Music unspecified
(iii) 45 min-dance/20–45 walks/1 per month
(v) Unspecified

Participants: 6

(i) Nursing home
(ii) 85 years (SD not reported)
(iii) 2F/4M
(iv) Not reported
(v) Unspecified

Palo-Bengtsson et al., 1998 Sweden

Social dancing

(i) Exploratory
(ii) Swedish dance music, waltzes, foxtrot and tango
(iii) 45 min x 1 monthly
(iv) Unspecified
(v) None

Participants: 6

(i) Nursing home
(ii) 83.3 (SD not reported)
(iii) 4F/2M
(iv) Not reported
(v) Unspecified

Palo-Bengtsson and Ekman, 1997 Sweden

Social dancing

(i) Descriptive
(ii) Music unspecified
(iii) 45 min x 1 per month
(iv) Not reported
(v) None

Participants: 6

(i) Nursing home
(ii) 83.3 (SD not reported)
(iii) 4F/2M
(iv) Not reported
(v) Unspecified

Ravelin et al., 2009 Finland

Therapeutic Dance

(i) Uncontrolled pilot study
(ii) ‘Season theme dances’
(iii) 30 min x 1 monthly
(iv) 16 months
(v) None

Participants: 13

(i) Nursing home
(ii) 83.7 (SD not reported)
(iii) 12F/1M
(iv) Moderate to severe: 6AD; 1LB; 6 non-dementia
(v) None

F, female; M, male; SD, standard deviation; AD, Alzheimer’s disease; VaD, vascular dementia; FTD, fronto temporal dementia; LB, Lewy body; GBS, Gottfries Brane and Steen rating scale for dementia syndromes; DMT, dance movement therapy.

(Hokkanen et al., 2008) said the control group ‘spent the same amount of time together in regular nursing home activities’. There is the potential that other ‘usual’ activities could have been confounding factors if they involved exercise to music. The study by Rösler et al. (2002) used depressed residents as controls, but details concerning depression in the intervention group were not provided, and thus the effects of depression may have been confounding too. In two studies, the potential problems associated with the dance therapist also being
the researcher were addressed (Nyström and Lauritzen, 2005; Guzmán-García et al., 2012).

**Engaging care staff**

Six studies relied on care staff or caregivers to provide support during dance sessions (Palo-Bengtsson and Ekman, 1997, 2002; Palo-Bengtsson et al., 1998; Nyström and Lauritzen, 2005; Ravelin et al., 2009; Guzmán-García et al., 2012). In two studies, care staff were trained by the dance therapist, and researchers were not involved in delivery of the dance (Hokkanen et al., 2003, 2008). In two studies, a dance therapist worked directly with the residents (Rösler et al., 2002; Duignan et al., 2009).
Adverse effects

Evidence of attention to negative findings was low, but there were reports that care staff were sometimes reticent about participating in social dances. This caused negative reactions amongst residents who were participating; for example, there were reports of dance partners being left alone on the dance floor. In addition, signs of confusion, irritability and anxiety were noted during the dancing (Palo-Bengtsson and Ekman, 1997; Palo-Bengtsson et al., 1998). From the care staff’s perspective, there were fears of over-attachment with residents or embarrassment to do with dancing; and concerns about staff shortages affecting the organisation of regular dance sessions in the home (Guzmán-García et al., 2012). Some care staff felt dancing was only appropriate for those with mild to moderate dementia. Staff reluctance and poor motivation were noted (Duignan et al., 2009).

Discussion

This review identified 10 studies that met inclusion criteria: seven qualitative and three quantitative. Studies used different approaches such as therapeutic dance, DMT, dance therapy, social dancing and psychomotor dance-based exercise. The studies showed improvements in decreasing problematic behaviours, enhancing mood, cognition, communication and socialising after the dancing session. The majority of studies reviewed reported dancing to induce social interaction and communication and thus decreased isolation amongst residents. There were no obvious adverse effects associated with dancing. The limited number of studies precludes any comparison of the different dance approaches. It seems likely that the particular likes and dislikes of dance styles of people with dementia and their care staff determine which type of dance approach works best in a given setting. Generally speaking, people tend to use the term ‘dance therapy’. We have preferred to group different types of dance practices in dementia under the generic term ‘dance work’ in order to capture the shared features of the various approaches of dance research in dementia. This simplifies terminology which is arguably important if a scientific basis to ‘dancing’ as a psychosocial

<table>
<thead>
<tr>
<th>Effect on:</th>
<th>Indicator</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Behaviour of residents</td>
<td>Stability in agitation</td>
<td>Hokkanen et al., 2003, 2008; Palo-Bengtsson and Ekman, 1997; Guzmán-García et al., 2012; Duignan et al., 2009.</td>
</tr>
<tr>
<td></td>
<td>Decrease in verbal/physical aggression, wandering</td>
<td>Palo-Bengtsson and Ekman, 1997; Guzmán-García et al., 2012</td>
</tr>
<tr>
<td>Emotional and affective states of residents</td>
<td>Joy and happiness</td>
<td>(see all studies except Rösler et al., 2002)</td>
</tr>
<tr>
<td></td>
<td>Evoking reminiscence</td>
<td>Guzmán-García et al., 2012; Nystrom and Lauritzen, 2005; Ravelin et al., 2009</td>
</tr>
<tr>
<td>Cognition of residents</td>
<td>Motor skills learning</td>
<td>Rösler et al., 2002</td>
</tr>
<tr>
<td></td>
<td>Mental stimulation</td>
<td>Guzmán-García et al., 2012</td>
</tr>
<tr>
<td></td>
<td>Executive functions and slight improvement in cognitive examinations</td>
<td>Hokkanen et al., 2003, 2008</td>
</tr>
<tr>
<td>Socialising and communication of residents</td>
<td>Dyads between residents and care staff through verbal and non-verbal communication</td>
<td>Hokkanen et al., 2003, 2008; Palo-Bengtsson and Ekman, 1997, 2002; Palo-Bengtsson et al., 1998; Duignan et al., 2009; Guzmán-García et al., 2012</td>
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<tr>
<td></td>
<td>Increase in narrative speech and social interaction</td>
<td></td>
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<tr>
<td>Mobility and balance of residents</td>
<td>Improved body flexibility and fitness</td>
<td>Palo-Bengtsson and Ekman, 1997, 2002; Palo-Bengtsson et al., 1998; Guzmán-García et al., 2012</td>
</tr>
<tr>
<td>Care staff</td>
<td>Empowering carers to provide dancing interventions</td>
<td>Hokkanen et al., 2003, 2008; Ravelin et al., 2009; Guzmán-García et al., 2012.</td>
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<tr>
<td></td>
<td>Generates job satisfaction and improve caring strategies and interaction with residents</td>
<td></td>
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<tr>
<td></td>
<td>Facilitating the dancing interventions by supporting the therapist with participants</td>
<td>Palo-Bengtsson and Ekman, 1997, 2002; Palo-Bengtsson et al., 1998; Nystrom and Lauritzen, 2005; Duignan et al., 2009</td>
</tr>
<tr>
<td>Family members</td>
<td>Considered to be positive intervention for the care environment</td>
<td>Duignan et al., 2009; Guzmán-García et al., 2012; Ravelin et al., 2009</td>
</tr>
</tbody>
</table>
intervention for people with dementia is to be established. Although the benefits of dancing are quite evident, therapeutic results from previous dancing approaches are inconclusive. It may not be helpful to describe dancing using the medical term ‘therapy’, because care staff may be reluctant to run the sessions regularly if a dance ‘therapist’ is not permanently present. Furthermore, residents might not always achieve positive results from dancing sessions in the care home.

What are the effective elements of dancing interventions?

There is some evidence that procedural (implicit) memory and dancers’ motor learning were improved by dancing (Rösler et al., 2002). This supports previous findings, where preservation of implicit memory and learning abilities in people with dementia has been demonstrated (Fleischman et al., 2005; Van Halteren-van Tilborg et al., 2007). Preserved implicit memory has been suggested as the basis for a model of care that helps to sustain functional abilities (Harrison et al., 2007). The music and social interaction elements induced in the dancing sessions might enhance mood and arousal in participants and trigger positive memories associated with earlier experiences of dancing in younger days. There is a potential beneficial effect on reminiscence because of the emotional content of long-term memories (Kensinger, 2008). Music therapy has been studied separately as a psychosocial intervention in dementia (e.g. Raglio and Gianelli, 2009). Music embedded in dance routines may be effective for enhancing mood and arousal. Dancing induces social interaction and communication amongst residents. There is also evidence of positive interaction between staff and residents, with beneficial effects on family members too. The sessions in these studies lasted between 30 to 60 minutes suggesting that mental alertness and engagement were achieved by the participants for this length of time. There is a suggestion that engaging staff in dance might result in improving job satisfaction. This might give staff the opportunity to engage with residents in an enjoyable manner.

Recommendations for dance work with older people with dementia in care homes

This review found a variety of research groups in the fields of nursing, psychology and psychiatry studying dance as an engaging social intervention for older people with dementia living in long-term care. Previous recommendations for dancing sessions have been published (Hill, 2009); however, good quality research evidence about the effects of dance on people with dementia living in care homes remains lacking. On the basis of the findings of this review and the available reflective literature, future studies will need to incorporate certain features. For example, studies should provide detailed demographic data, with information on the severity and types of dementia, because the effect of dance on each stage of dementia is unclear. Standardised tests or validated instruments are required to record cognitive function, behavioural and psychological symptoms, levels of mobility and balance to provide evidence that dance is beneficial in terms of (e.g.) falls prevention.

Researchers in the field should be careful to report frequency and duration of sessions, details of who attended and provided the dancing intervention (e.g. therapist, researcher or care staff). It is important to report any negative outcomes, address staff concerns and record behaviours that challenge arising from the dancing sessions (e.g. inappropriate sexual behaviour, frustration and irritability). It remains debatable as to who should give the intervention, whether a dance therapist or the care staff. The objective should be to maximise a meaningful interaction for both residents and empower staff to facilitate dance work sessions, with support from dance therapists/practitioners if cost-effective for the care home. Dance research must take account of other social or exercise activities undertaken by residents that might confound the results of dance studies. Participants might also be receiving aromatherapy, music/sing-along sessions or exercise to music. It is been argued that activities that merely require attention from the care staff improve the behaviour of people with dementia (O’Connor et al., 2008). To withdraw such activities from the care setting to allow research on dance would raise ethical concerns. Ethical issues around capacity, consent or assent must also be considered for dancers and observers of the dancing sessions.

Research using single-case methodology has been suggested, as it provides more scope for experimental design in this population and different approaches to dance (Brooker et al., 1997; Moniz-Cook et al., 2003). This should lead to individualised analyses of efficacy with respect to particular symptoms or signs in particular residents.

In a longitudinal qualitative study completed concurrently with this review, we have studied Danzón Latin Ballroom based on psychomotor dance-based exercise using multiple-baseline single-case study methodology. The results of this study (paper in preparation) were built on preceding theoretical, qualitative and modelling
work (Guzmán-García et al., 2011, 2012) as suggested by the Medical Research Council (Campbell et al., 2007; Milne et al., 2008). Furthermore, there should be research into the factors that influence the implementation and sustainability of dancing, including facilitation by care staff and possible support from family members.

Conclusion

In summary, the evidence-base revealed by this review is small; however, results have linked dancing with positive mood, such as reducing stress and diminishing problematic behaviour for the participants such as agitation. The potential benefits of dance work are inconclusive and questions on its physical and cognitive components remain unclear, which we would recommend researching in depth. We call for increased awareness of dance work as a potentially social engaging activity for residents living in long-term care.

The evidence must then be used appropriately with respect to the abilities of residents and staff attitudes to dancing regularly in the particular setting. Dance work could potentially be part of a comprehensive and cost-effective model of dementia care (Albanese et al., 2007) if the home only requires a CD player, speakers and recorded music. Thus, evaluating the cost-effectiveness of dance, over against the costs and side effects of antipsychotic or psychotropic medication, would seem to be an important contribution to the field of dementia care. The present systematic review promotes the view that dancing interventions are potentially far more than an entertainment activity. Despite the relative paucity of evidence, intuitively dancing would seem likely to improve social interaction for people with dementia, including their interactions with staff, which would include human touch beyond that required during personal care. This could, therefore, represent a significant shift for staff, with the potential to make life more enjoyable for older people with dementia, which seems an important goal of long-term care.

Acknowledgements

We thank Ms. Erika Gavillet, librarian from Newcastle University, for her support with papers search. We are kindly grateful to the authors that provided additional information: Dr Richard Coaten, Debbie Duignan, Jennifer Donald, Dr Heather Hill; Linda Lenher; Dr Teija Ravelin and Dr Alexander Rösler. Lynn Rochester is supported by the National Institute for Health Research (NIHR) Newcastle Biomedical Research Centre and Unit based at Newcastle upon Tyne Hospitals NHS Foundation Trust and Newcastle University. The views expressed are those of the authors and not necessarily those of the NHS or NIHR or the Department of Health.

Key points

- Dance research uses different approaches such as therapeutic dance, dance movement therapy, social dancing and psychomotor dance-based exercise.
- Dance work evidence in care homes is limited; however, preliminary results show decrease in problematic behaviours and enhanced positive mood in residents with dementia and improved social interaction with care staff.
- The results of this review promote the view that dancing interventions are potentially far more than entertainment activity.

Conflict of interest

None declared.

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