

Remember to Dance

Evaluating the impact of dance activities
for people in different stages of dementia

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Contents

Introduction	6
Aim	6
Rationale for the study	6
Models of health and dementia	6
Salutogenic model of health	7
Jeopardy to quality of life and wellbeing	7
Wellbeing and meaningful activity	9
Non-pharmacological interventions	10
Participatory arts and people with dementia	10
Dance movement and people with dementia	10
Differentiating dance movement concepts	12
Dance and creativity	13
Embodiment and emotional expression	13
Using props to trigger creative impulse	15
Creating an environment for positive change	15
Training staff to facilitate non-pharmacological interventions (NPIs)	17
The current study	17
Remember to Dance: the intervention	17
The programme	17
Practitioners and assisting facilitators	17
Participants	17
The dance spaces	18
The dance movement sessions	18
Props	19
Music	19
Example of a community group dance movement session	20
Research question and objectives	21
Methods	21
Data Tools	22
Research sites and participants	23
Coding and data analysis	24
Ethics	25
Results	25
Final Sample	25
Findings	26

Quality of Life – RtDH group.....	30
Functioning – RtDC group.....	31
Functioning - RtDH group.....	33
Findings from the Prosper Involvement and Wellbeing Scales.....	33
Motivation.....	34
Creative and emotional expression.....	37
Embodiment.....	40
Relationships and social competence.....	43
Non-verbal communication.....	43
Verbal communication.....	45
Wellbeing.....	48
Activity-specific incidents.....	50
Developing a sustainable model of dance programmes enabled by healthcare staff.....	50
Advocacy for RtD dance activities.....	51
Barriers and Challenges to dance-centred training for staff.....	52
Creative dance as a tool for creative practice in staff training.....	55
Discussion.....	55
RtD and dementia-related policy and care practices.....	55
Dance, health and wellbeing.....	56
Quality of life and functioning.....	56
Motivation, creative and emotional expression.....	57
Relationships and social competences.....	57
Wellbeing.....	58
Staff training to facilitate dance activities.....	58
Conclusions and recommendations.....	58
References.....	60
Appendices.....	46
Appendix 1:.....	66
Appendix 2:.....	67
Appendix 3:.....	69
Appendix 4:.....	70
Appendix 5:.....	71

Introduction

This report outlines the findings of a two-year research study, conducted by the Sidney De Haan Research Centre for Arts and Health, Canterbury Christ Church University, on the impact on quality of life (QOL) and wellbeing of the dance movement programmes, Remember to Dance in the Community (RtDC) and Remember to Dance in Hospital (RtDH), run by Green Candle Dance Company for people in different stages of dementia.

Aim

The aim of this study was twofold: i) to assess the effect of the RtD programmes on the QOL and wellbeing domains of functioning, motivation, creative and emotional expression, confidence, relationships and social competence for people in different stages of dementia and those involved in their care; and ii) to assess the potential for developing a sustainable model of dance activity that could be facilitated by healthcare staff.

Rationale for the study

In response to demographic predictions of a doubling in the number of people with dementia over the next 30 years and a trebling of the associated costs, prominent international and national agencies, including World Health Organisation (WHO), Age UK, Alzheimer's Society, the Alzheimer's Research Trust, Department of Health and The All Party Parliamentary Group (APPG), made up of UK Government Ministers and Peers, have exerted some considerable energy into strategic planning for the future^{1 2 3 4 5}. In December 2013, senior Heads of State took part in the G8 Dementia Summit, an international policy discussion. The resulting declaration focuses largely on the need for funding research into causes and treatments but it also calls for 'greater innovation to improve the quality of life for people with dementia and their carers while reducing emotional and financial burden'⁶.

Models of health and dementia

In the late twentieth century, pioneers of changing perceptions of dementia, notably Professor Tom Kitwood⁷ and Mary Marshall⁸, identified a spectrum of complex co-factors that underpin the way in which each individual lives their lives post-diagnosis. A new understanding relating to the maintenance of dignity, autonomy and relationships with others and the environment illustrated the need for broad health perspective that expands on the limitations of the objectivity focused bio-medical model⁹. This applies to all long-term health conditions but may be particularly relevant in the context of dementia wherein post-mortem examination of degenerative brain tissue from a person with the condition does not always correlate to his or her expression of cognition before death¹⁰. Many personal testaments also verify that the science of dementia is by no means the complete story.

The complex co-factors that determine an individual's sense of health and wellbeing were succinctly expressed in Abraham Maslow's hierarchically model of human needs¹¹, which continues to underpin biopsychosocial and humanistic models of health today. The model was developed in 1943 and outlines the spectrum of needs hierarchically from the basics of air, food, water, shelter and safety, to a sense of being loved, belonging, having self-respect and, ultimately, to include self-actualisation. Maslow identified that fulfilment of the whole spectrum of needs is determined by external, internal and personal factors, such as functionality, and that these enable or disable self-management of positive actions that lead to meaningful activities. For people with dementia, Maslow's model stands in as good a stead today as when first developed. However, despite broadening of concepts relating to

health and wellbeing in the first half of the last century, up to the late 1970s, concepts of ill-health and ill-being tended to be fixed by the labelling of illness. This in turn tends to elicit typical ill-health behaviours from those with the label of illness and the onlookers.

Salutogenic model of health

In the context of people with dementia, Aaron Antonovsky's salutogenic model of health is a useful alternative to the biomedical model¹². Salutogenesis focuses on the ability of an individual to self-actuate positive life choices, to support a better QOL, and to affect wellbeing, despite a label of dementia.

Rather than accepting the absence of disease as normal and disease as abnormal, salutogenesis acknowledges function disruption and decline as inevitable in the human organism and accepts that despite this, a sense of ordered coherence can still be achieved⁹. By emphasising preserved assets, rather than focusing on loss, and on perceptual and behavioural adaptations in the face of changing circumstances, resilience to debilitating stressors can occur and a sense of holistic coherence managed¹³. Such resilience is highly salient in the management of changing situations in which people with dementia frequently find themselves over time.

Jeopardy to quality of life and wellbeing

The National Institute for Health and Care Excellence (NICE) quality standard guidance QS30, sets out ten quality statements (QS) for supporting people to live well with dementia. The statements offer guidance to health professionals in what to prioritise. These are:

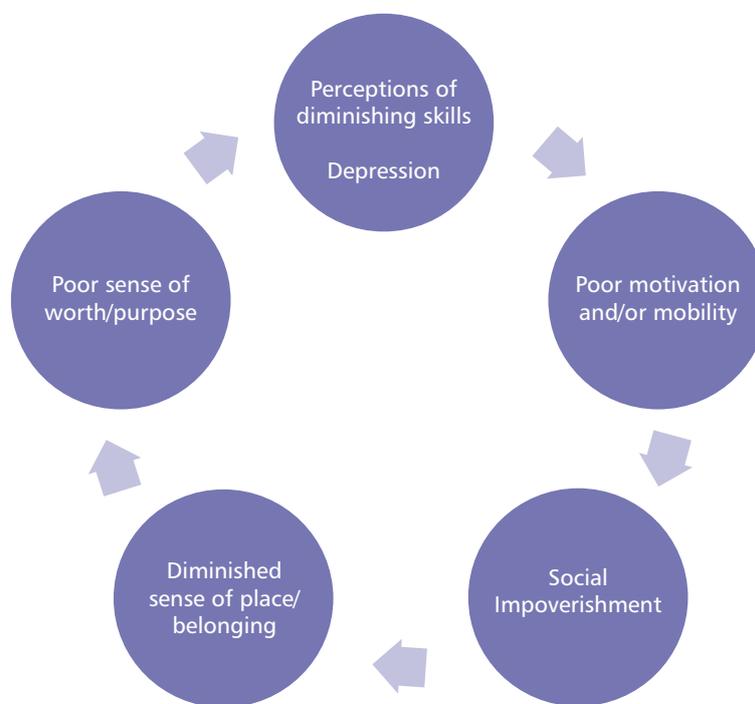
- QS1. Discussing concerns about possible dementia
- QS2. Choice and control in decisions
- QS3. Reviewing needs and preferences
- QS4. Leisure activities of interest and choice
- QS5. Maintaining and developing relationships
- QS6. Physical and mental health and wellbeing
- QS7. Design and adaptation of housing
- QS8. Planning and evaluating services
- QS9. Independent advocacy
- QS10. Involvement and contribution to the community¹⁴

The guidelines centre on people with dementia identifying and co-managing their own physical, psychological and social needs to maintain/improve their QOL. This also relates to people's experiences outside of formal support services. Concurrently dementia-focused campaigns led by the present Government, such as the Prime Minister's Challenge on Dementia, and third-sector organisations, such as Alzheimer's Society and the Dementia Action Alliance, aim to prolong good QOL. The collective initiatives are driven by the likelihood that people with dementia will encounter difficulties in accessing/managing factors that lead to good QOL. In turn, their interpretation of the subjective experience of these factors will ultimately determine a sense of holistic well or ill-being¹⁵.

For many people with dementia, diminishing confidence in communication and cognitive skills commonly result in withdrawal from usual social activities and, in a cyclical affect communities are limited in their regular engagement with this population. Illustratively, a report for the Department of Health in 2012 showed that 67% of people with dementia feel excluded from their community¹⁶. Gradual loss of social identity leads to a deprived sense of place, belonging and purpose, each of which are likely to contribute to a diminished sense of self.

In addition to some people experiencing dementia-associated mobility disorders, such as apraxia (difficulty with purposeful movement)¹⁷, lack of motivation or apathy after a diagnosis of dementia and the subsequent challenges of fostering engagement in activities is well documented¹⁸. The phenomenon has long been associated with neuropsychiatry (mental ill-being)¹⁹, often as a consequences of anti-psychotic drug use²⁰, and more recently in terms of neuropathology (brain dis-function)²¹.

Figure 1: Cyclical process leading to poor QOL and wellbeing for people with dementia



In a cyclical process, self-perceptions of diminishing skills and problems with mobility and motivation are related to a reduced sense of place/belonging, purpose and worth (Figure 1).

Collectively, accelerating rates of unmet physical and psycho-social needs commonly engender frustration and sadness that can lead to ill-health in both the cared-for and the carer (www.carersuk.org).

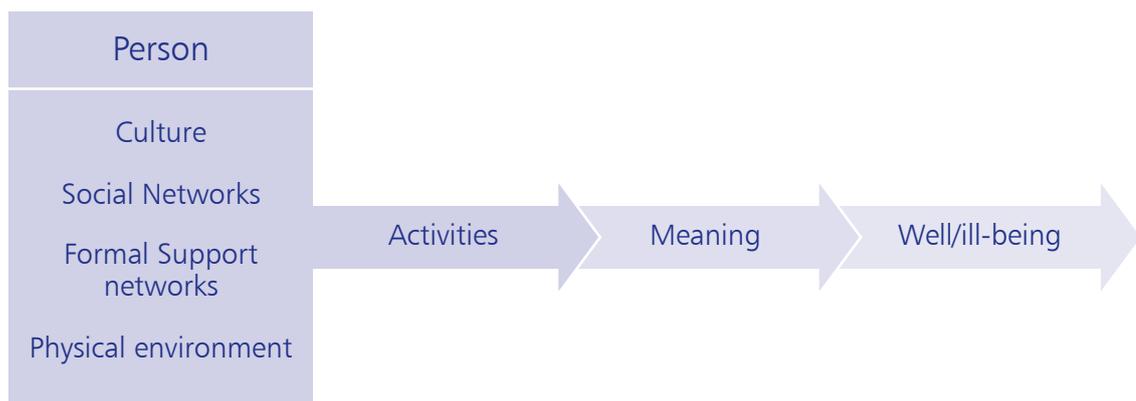
Wellbeing and meaningful activity

Very recently, NICE have published a report entitled Older People: Independence and Mental Wellbeing Health, which directly recommends access to group-based multi-component creative activities to help to engender holistic wellbeing and to reduce, delay or avoid use of health and social care services for people aged 65+²². Physical activity in a social context, such as a community dance class, is one of a number of named recommended activities.

In recent years the terms flourishing, happiness, healthfulness and wellness have been put forward to describe holistic wellbeing^{23 24 25 26 27} and the five ways to wellbeing messages - take notice, connect, keep learning, take part, and give – are frequently used as desired outcomes in services to improve mental wellbeing across the entire population²⁸.

The Medical Research Council (MRC) acknowledges that life satisfaction is often associated with involvement in activities that are perceived by the participant as meaningful and valued²⁹. The MRC goes on to recommend the inclusion in all strategies for older people access to personally satisfying activities.

Figure 2. Factors that underpin activity-driven well/ill-being



Sixsmith and Gibson (2006)³⁰ provide a useful model showing factors that underpin activity-driven well/ill-being for people with dementia (Figure 2). The model shows factors that influence an individual's choice and ability to access meaningful activities. These relate to: overarching macro cultures, which tend to have trends in activities; the meso culture relating to formal support networks and their influences and capacities; and the micro culture including social support networks and the physical environment. Each of these will determine the scope of activities offered and issues of access. Whilst there is a consensus that these factors, and control over them, are fundamental to how individuals perceive the meaning and benefit of an activity, there is also growing interest in evaluating the benefits of different types of activities that might support QOL and wellbeing³¹.

Non-pharmacological interventions

The ability of people with dementia to self-direct meaningful activities is likely to diminish over time. In this case, a mix of drug (pharmacological) and non-pharmacological interventions (NPIs) may be offered through various health and social care and community-based services.

An acknowledged relationship between NPIs and physical, mental and social functioning and reduction in distressing behaviours has gained traction over the last two decades or so³². A systematic review of studies of NPIs for people with dementia adds to the weight of evidence in identifying the positive benefit of physical activity, gentle touch and music to help address physical and verbal aggression and agitation in people in the later stages of the condition³³. This study and others have highlighted the potential benefits of motor-exercise³³, multi-sensory stimulation³⁴ and social management to improve QOL. These collective findings provide an argument for offering dance movement/music activities to people with dementia that include social and multi-sensory components.

Participatory arts and people with dementia

In 2009, the Baring Foundation published an important report on the role of the arts in supporting QOL and wellbeing for older people and for people with dementia³⁶. The report states:

Participation in the arts has many benefits; the intrinsic value of creative expression, the affirmation of one's sense of self and the process of acquiring and developing skills which sometimes provides a livelihood. Beyond this the literature in this field tends to focus on two interrelated dimensions: health, both physical and mental; and relationships, both personal with family, friends and professionals and across the community (p.21).

The report contributes to the growing evidence on creative activities for older people and people with dementia^{37 38} and concurs with general conclusions that participatory arts to support enjoyment of life, a sense of pleasure/accomplishment/purpose/life-role, confidence, self-esteem, learning, cognitive functioning, communication, memory and creative thinking, and can reduce risk of low mood, anxiety and social isolation³⁹.

Dance movement and people with dementia

Much of the literature on the benefits of participatory arts for older people makes significant reference to the benefit of dance. For example, the Baring Foundation report (above) uses the previous work of Green Candle Dance Company as a case study to highlight the potential impact of dance on inter-related determinants of health wellbeing, for example:

- Developing skills in dance and movement, including coordination, balance and motor skills, body and spatial awareness
- Improving emotional wellbeing and combating isolation through socialising and cooperating in shared endeavour, finding new and personal means of self-expression
- Improving mental capacity through demands on memory, decision-taking and problem-solving
- Having fun!

(35)



One large-scale, three-year evaluation of 1964 adults attending one of 34 community dance classes in rural settings illustrated strong personal, physical and social outcomes, particularly a sense of improved well-being, new friendships and enjoyment⁴⁰.

Dementia-specific studies undertaken across the developed world over the last quarter of a century have shown how the benefits of dance movement can go beyond increased stamina, balance, flexibility and coordination, to include support for: overall quality of life, wellbeing and positive mood^{41 42 43}; communication⁴⁴; self-expression, creativity and imagination⁴⁵; in-the-moment concentration, information processing, recall and new learning^{46 47 48}; time and space orientation⁴⁹; a sense of person-to-person attachment and social wellbeing⁵⁰; emotional stimulation and cognitive functioning^{51 52}.

The research referred to above represents important landmarks in the field of dance and dementia. In 2013, building from three previous literature reviews on the physical benefits of dance in older age and of dance and health more generally^{53 54 55}, a team of reviewers led by Dr Azucena Guzmán-García contributed further to the evidence by conducting a systematic review of dance in care homes for people with dementia⁵⁶. The authors identified ten studies that met their criteria for design rigour. These included both qualitative (n=7) and quantitative (n=3) studies which collectively explored: general management issues⁵⁷ social interaction⁵⁸; therapeutic support⁵⁹; intellectual, emotional and motor functions^{60 61}; skill-learning⁶²; dance as performance⁶³; the impact of Latin American dance⁶⁴; and care-givers' perspectives. Overall, the reviewers concluded that in the context of people with dementia, dance movement can:

- Act as powerful therapeutic support
- Free the physical body
- Engender a sense of purposeful movement
- Extend kinespheric reach and fine motor skills
- Improve balance, gait and mobility
- Inspire and validate hope
- Pursue goals of leisure
- Encourage self-management
- Strengthen self-control
- Engender community integration
- Positively affect social inclusion/a sense of collective, identity and of belonging
- Support good relationships between the carer and their cared-for

A further significant study in this field centres on the potential for dance activities to reduce the risk of dementia. Mapping a cohort of 469 dementia-free subjects aged 75+, the researchers showed that regular engagement in dancing was the only physical leisure activity among others including reading, playing board games and playing a musical instrument, which were associated with reduced risk of dementia⁶⁶.

Differentiating dance movement concepts

The types of interventions used across the studies reviewed by Guzmán-García et al. spanned the psychotherapeutic dimensions of dance therapy, dance movement therapy and therapeutic dance, the psychosocial dimensions of social dancing, and the psychomotor dimensions of dance-based exercise. Some commentators observe links between certain categories of dance movement and specific outputs, such as dance therapy to generate positive emotions and self-image^{55, 83}, and social dance to act positively on verbal skills and social interaction⁶⁷. However, Guzmán-García et al. points out that these defined categories rarely, if ever, delineate different concepts in practice. This observation is supported in a recent publication entitled *Dance for Health and Wellbeing, Guidance and Resources for Commissioners*⁶⁸. Here the authors note that whilst different dance styles or genres may have different foci – for example, physical work-outs, social/community togetherness, expressive/creative outlets, psychodynamic therapy – most dance movement activity is multi-dimensional. The following quote is taken from a paper on the diverse and far-reaching effects of dance in child psychiatry that illustrates this multi-dimensionality that also transfers well to dance and people with dementia:

[The power of dance] uniquely combine[s] thinking, feeling, sensing and doing. It has strong effects on physiological and psychological well-being, combining the benefits of physical exercise with heightened sensory awareness, cognitive function, creativity, inter-personal contact and emotional expression – a potent cocktail⁶⁹.

Dance and creativity

Defining creativity is complex⁷⁰. Early definitions centred on symbolic representations found in art but today creativity is associated with nurturing the human imperative for creative output, or even addressing a biological necessity^{71 72}. This holistic embrace of the concept emphasises the human need to add something new to culture through creative activity and to trigger biochemical reactions in order to respond creatively to life-situations more generally⁷³.

If the definition of creativity is complex then the processes by which creative output is reached are even more so. Broadly, the range of cognitive categories involved in creativity includes divergent thinking and simultaneously constructing and combining ideas. The non-cognitive categories that converge to influence creative output include motivation, the human differentials relating to desire for risk and novelty, and personal tolerances such as flexibility and independence⁷⁴. Other categories are skill/knowledge-perception and mental health status.

An understanding of these influences might inform the design and delivery of dance movement activities/interventions, wherein creative outputs can be encouraged appropriately through improvisation, imagination, and self-expression. In this case, the emphasis is on exploration and discovery, and on ownership of movement, rather than improving/perfecting technique⁶³. Burkhardt and Rhodes⁶⁸ also raise the long-argued intrinsic/instrumental discussion around the arts. They agree that creative dance highlights the exploration and discovery of dance and its expression. It is non-competitive and requires encouragement, co-operation, participation and support. Dance practitioners that deliver activities in this context focus on stirring the imagination, fostering creativity and encouraging ownership in participants. It is a people-centred approach with equal value placed on both the individual and the art form.

Whilst a small number of studies have indicated a direct link between active decision-making in creative dance and improved synaptic connectivity leading to cognitive improvement⁷⁵, responses to creative choices and decision-making aspects of dance movement for older people tend to be measured in terms of emotional and physical health⁷⁶. A prime example of creative dance used as a tool to support emotional and physical health is seen in the work of Daria Halprin, co-founder of the Tamalpa Institute for movement-based expressive arts therapy (www.tamalpa-uk.org). Halprin observes that expressive movement is a language wherein participants can reveal the deepest of life-struggles and creative potential⁷⁷. The Tamalpa approach aims to nurture individuals to a place where they can express any of their repertoires of life experiences through movement in order to achieve personal, interpersonal and social transformation. Such transformation is achieved through total immersion in the creative process and in absolute embodiment.

Embodiment and emotional expression

In 2010, a study of the role of individualised music performance/listening for people with enduring mental ill-health found that some participants used embodied engagement in preference to drugs or medical treatment, often experiencing transcendence from pain and distress through personal musical practices⁷⁸. The study showed that listening, playing or singing, alone or in a group, could engender 'a sense of wholeness in body and mind'. The author reported that immersion of this nature, which she described as 'musicking', can produce a sense of coherence and a 'zest for life' that in turn helps to stimulate coping mechanisms and to muster a stronger self. The study provides an example of performing arts acting as a non-pharmacological intervention to engender greater sensations of wellbeing and life satisfaction.



A paper on the theoretical perspectives of embodiment and dementia refers to ‘the body’s potentiality for innovation and creative action’ (p.288)⁷⁹. The authors of this paper go on to advocate dance movement as a narrative expression of self-hood. Writing for the international journal *Dementia* on the subject of embodied dance movement, dance-movement psychotherapists, Dr Richard Coaten and Donna Newman-Bluestein, describe embodiment thus:

...a concept pertaining to lived-body and phenomenal experience that is crucial to better understanding what it subjectively means to be human. In addition, it can be described as a continuum, requiring at least part of human awareness to be grounded in the internal subjective sensations of lived-body experience, from little awareness at one end to considerable awareness at the other (p.677)⁴⁵.

Complete immersion in sensations of lived-body experience was described by Professor of Psychology, Mihaly Csikszentmihalyi, as *flow*. This applies to when a person is so engrossed in a particular activity that the sense of time, identity and problems fade or disappear⁸⁰. Recent literature on embodiment and people with dementia observes the central importance of enabling flow relating to expressions of self, in personal attire, story-telling (life-narratives), behaviours and communion with others^{81 82 83 84}. Where embodied *flow* is understood in care practices and in societies as an expression of need, the life of the person with dementia and their care-givers can be celebrated, rather than regarded in terms of loss and stigma⁸⁵.

The potential for emotional expression through embodied experiences are arguably unaffected by an individual's level of cognitive functioning. Whilst there is some evidence that the decline experienced with dementia may affect negative emotions more than positive emotions, the nurturing and embracing of embodied expression is more likely to lead to fulfilling experiences for both the care-giver and the cared-for throughout the dementia journey⁸⁶.

Proponents of embodied dance movement practice, Coaten and Bluestein also assert that phenomena relating to creative expression, aesthetic feeling and meaningful interaction through physical movement should now be part of all critical discourses on embodiment and dementia.

Many commentators observe a depth of 'presence' in people engaged in the expressive mode of dance movement⁸⁷. Others report the success of alternative arts-based conduits for emotional expression, which may also inform dance movement practice models. For example, the use of rhythm and percussion instruments can provide for people in the advanced stages of dementia emotional outputs when verbal language is no longer present⁸⁸. Improvised story-telling and theatrical approaches⁸⁹ and improvised 'clowning' and playfulness^{90 91} are also highlighted.

Using props to trigger creative impulse

A growing body of evidence has examined the benefits of props to stimulate sensory integration, interaction and self-expression. Dance movement therapist, Patricia de Tord observes that variety of props can be used to support participants' co-ordination, creative impulses and imagination in a dance session, from bouncing soft balls, creating patterns with scarves through the air, exploring rhythm with ribbon batons, dancing with umbrellas and large feathers⁹².

With a prop in hand it can open and expand a participants own movement repertoire, finding it easier and fun to come up with their own creative movements, stories, rhythm and flow. The props also allow for a greater diversity of expressive movements, creative extensions through the arms, facial expressions and creative hand/arm interactions with others participants in a group. Describing a movement class with older people, De Tord observes the importance of 'play' through props to engender states of creative, emotional and social wellbeing:

The older people worked together as a group and entered into a state of playfulness and creativity which helped them to become more opened and integrated emotionally and socially, strengthening cohesion, and connection with their bodies...improving their communication. It also increased their creativity...connecting with me, with each other and with their own life experiences and memories (p.20).

Creating an environment for positive change

The evidence thus far points strongly to the potential for dance movement, particularly including opportunities for creativity, embodied experiences and emotional expression, to support QOL and wellbeing for people in different stages of dementia. What is less well defined is the optimum method for engaging people whose levels of motivation may be inconsistent and/or diminishing over time. A systematic review of 38 studies that focused on the challenges of activity engagement aimed to bridge this shortfall in understanding⁹³. The findings of the review highlighted the significance of appropriate activity-related objects/property, space, guidance, social enrichment, and social demands. In conclusion, the most effective inducers for fostering engagement and decreasing negative behavioural symptoms appeared to be spaces with 'normal' lighting, 'moderate' sound and small numbers of people, and activities that are socially supportive, and in which 'descriptive prompts' and 'appropriate cueing' are given frequently for sequenced or multi-stepped actions.

Training staff to facilitate non-pharmacological interventions (NPIs)

A report published in 2009 for the Department of Health on the use of antipsychotic medication for people with dementia in residential care settings emphasises the need to develop staff skills in NPIs, including specific creative therapies⁹⁴.

Vella-Burrows reported that care staff in the UK generally advocate the frequent use of music with dance/movement⁹⁵ as a positive stimulant for people with dementia, including at the later stages of the condition^{96,97}. It may be argued that music and movement is already the most ubiquitous staff-facilitated NPI given the common use of background music and frequently reported short, spontaneous shared movement-activities, for example swaying or rhythmic walking. In this case, music/movement at some level may not always be wholly dependent on specialist therapists/practitioners. However, care staff may not recognise these often fleeting interactions as facilitating dance movement as a positive NPI. Further, Vella-Burrows reported a general lack of clarity and confidence among many care staff in how they might thread music and movement activities into their day-to-day care-giving in a more formal manner. There appears therefore to be an argument for willing staff to work alongside a specialist practitioner to gain theoretical knowledge and practical experience.

Some training programmes for healthcare staff do focus on leading creative activities and some use creative media to broaden creative approaches to practice more general⁹⁸ (also see www.fpereirastubbs.co.uk/wp-content/uploads/2015/09/Dancing-at-Addenbrookes.pdf). Researchers who have explored arts-integrated training for healthcare professionals refer to the need to de-prioritise task orientation and to promote positive, reflective communion between patients and professional care-givers^{99,100,101}. For example, in a review of medical literature relating to arts in health for Arts Council England, Rosalia Staricoff wrote:

Integrating the arts into the training and professional development of health professionals helps them better communicate with and understand their patients, from all social and ethnic groups¹⁰².

Kuhn and Verity (2008) described a mode of care-giving for people living with dementia in which the care-givers becoming artists of care. The *art phenomenon* of dementia care, as the authors term it, involves the care-giver in empathic interactions in which they respond creatively to the people for whom they care as the latter's capabilities alter over time. When fully engaged in this mode of caring, care-givers can maximise the strengths and minimise the fears of people affected by dementia and simultaneously develop their own capacity for professional and personal growth.

However, whilst there is growing evidence to support the benefits of arts-based/creative training for healthcare staff, to date there is a paucity of research on the feasibility of scaling this up to a national level.



The current study

Remember to Dance: the intervention

Green Candle Dance Company (GCDC) has had over 25 years of working with older people and its practitioners have specialised in working with people with dementia for the last five years. In 2013, GCDC were awarded funding from the Headley Trust to run the *Remember to Dance* programmes for people living with dementia in an east London borough. The programmes were offered free at the point of delivery.

The programme

Two programmes ran simultaneously: *Remember to Dance in the Community* (RtDC) – 90 minutes of dance movement run weekly during school term-times in a community arts centre; and *Remember to Dance in Hospital* (RtDH) – a rolling programme run twice a week in the acute assessment unit for inpatients with dementia. Assessments usually lasted around 6 weeks so twice-weekly provision aimed to provide intensive interaction over that period. The hour-long sessions alternated between mornings and afternoons on separate days, one towards the beginning of the week and one towards the end to accommodate other set assessment and rehabilitation treatments.

Practitioners and assisting facilitators

Green Candle's Artistic Director, Fergus Early was the lead practitioner for the programme, working alongside other senior professional dance practitioners within the company. The continuity of the facilitator for each term was integral and vital for building trust and safety in the groups. The programme was also supported by GCDC interns who were recent dance graduates gaining experience of community dance.

Participants

Both programmes consisted of a mixed group of male and female participants, family carers and support staff.

The community group was formed of 15 to 22 people, at least two-thirds of whom had been referred after recent diagnosis, variably by a GP, district nurse, health visitor, social/support worker, the Community Mental Health Teams (Older People) from participating boroughs, or their local branch of the Alzheimer's Society, or they had heard of the sessions via word of mouth. Family carers/support workers accompanied some participants and a member of staff from a local residential care home also took part.

The hospital group was formed of 7 to 12 people who were inpatients on the acute assessment unit and who were either invited directly by the practitioners on the day, or escorted into the dance space by a member of staff, or were drawn into the space spontaneously once the musician had started to play. One or two family members and members of staff also tended to join in.



The dance spaces

The sessions were always facilitated in risk-assessed, safe environments. The community group met in a town – community arts centre. The sessions started out in a well-lit dance studio with natural light and moved after around one year to a warm theatre space and then onto a naturally lit meeting room all within the same building. The first two spaces had wooden floors and the latter was carpeted. Each space was enclosed, quiet and separate from the other activities in the community arts centre, which supported focus and concentration for the participants.

The sessions in the hospital took place in the open-plan community lounge adjacent to the dining area for patients. Due to the nature of the setting, there was often extensive comings and goings of patients, medical staff, hospital staff and family visitors. This had the effect of being potentially disruptive but it also allowed patients to move in and out of the space as they pleased, and enabled staff to monitor activities in the entire space, rather than being confined to a separate room.

The set up for each weekly RtDC group was a circle of simple fold away chairs for the participants, carers, facilitators and musician to sit on. The same configuration was also used in the RtDH setting with the exception of a smaller number of larger lounge room chairs, static and solid.

The dance movement sessions

Each dance movement session was facilitated by a lead dance practitioner, one assistant or intern and one musician.

Creative dance was used as the primary element in the RtD programmes. The facilitating practitioners wove together guided dance movements for the participants to follow and space



for improvisation and creative movement in which participants engaged with their own creative impulses and expression. The intention of the programme was to provide as many different approaches in the delivery of the creative dance whilst systematically repeating and developing movement sequences, developing physical stamina, group safety and increasing levels of sophistication in the choreography per session.

Props

A variety of different props were used in each session to support a variety of movement, sustain focus and attention as well as giving the opportunity to engage and connect with each other. Props varied from brightly coloured scarves, balls, batons, ribbon sticks, a parachute, feathers, umbrellas, scenic props, a beach ball and a maypole.

Music

Of critical importance to the flexibility of the programmes was the use of skilled musicians (as opposed to pre-recorded music), who accompanied and improvised relevant to the flow of activities in each session. The musician collaborated with the facilitating practitioner in playing music, creating sound and singing songs that were supportive with each movement activity, pace and rhythm, whilst responding in-the-moment to individual and group dynamics, aliveness and energy in the room.

Instruments included accordion, flute, African drum, guitar and the voice. The style of music varied but was often grounded in world gypsy music from Eastern Europe and Latin America, or sea shanty-style music. Some music was more abstract in expressing ambience or imagery (such as 'soft wind through the trees'). Familiar songs were played/sung at times but this was not a primary aim in the programmes.

Example of a community group dance movement session

- Arrival: An assistant would meet and greet each participant helping them to find their way to the class where they would be greeted by the facilitator and assisting practitioner musician. Participants who arrived early would say hello to each other and engage in friendly conversation, some more than others whilst waiting for the class to start.
- Hello song: The class would begin with a hello song, each participants' name was called out and the group sang hello to them as a way of allowing all participants to be acknowledged, welcomed and seen. This was weekly ritual and signalled the start of each class.
- Warm up: Whilst seated the participants were guided through opening and expanding stretches through their arms and legs, to warm their muscles up and allow the opportunity to come home to their physical bodies. The facilitator would often mirror participant's movement around the circle and use the movement with the rest of the group. Breath/sound/voice work was often incorporated into the initial warm up section.
- Coordination exercises and challenging the mind: Participants then followed movements that allowed them to work with varying degrees of coordinating hand, arm and leg movements at different levels on their body and across their body, to challenge and wake up their mind and body coordination. Participants would aim to keep up and keep going even if they fell out of sync at times. There was always lots of laughter and good humour in this section of the class. The intention was to challenge movement memory and coordination in a fun and relaxed way. A popular movement was running on the spot whilst seated and picking up pace and speed, often finished with a release of laughter and then satisfied collapsing into their chairs.
- Stretches: starting slow and sustained and progressing to more fluid, deeper muscle stretches, including lifting and bending the knee. Flexing and extending through, spine, legs and arms.
- Prop work: Each week a different prop was introduced, varied from balls, sticks, umbrellas, scarfs to ribbon sticks, this allowed for further eye, hand coordination, memory stimulation and the opportunity to be creative with expressing movement and dance, using the prop as a starting place.
- Breathing exercises: after the dynamic and energising prop work participants would then be led in calming, relaxing movements to slow their breathing, expand their lungs and bring their heart rate back down.
- Water break: this was always welcomed. The assistants and carers would help pass around water to the participants and in the short break conversation and communication with each other was encouraged. The break was interactive, social and relaxing.
- Choreography: Here the participants were guided through a piece of choreography, often using props or a particular song. In some sessions later on in the two-year project the choreography was built upon and added to from the session before, i.e. Morris Dance piece and May Pole dance. This section often also opened up into creative movement and improvisation with participants variably dancing and expressing him or herself with a scarf or umbrella or getting up on their feet and dancing with one another. As the facilitators and assistants danced with the participants there were often lots of smiles, expressions of joy and faces lighting up.

- Cool down: At the end of each class there would be 5-10 minutes of cool down. This was done in a variety of ways sometimes with the whole group holding a parachute and passing a beach ball around in it to each other to soft music or others times just the parachute on its own, being lifted up and down slowly, the breeze of it passing soothing the participants. Sometimes calming folk music played on an accordion or a popular song was sang with simple gentle gestures of the arms and hands were used to bring the participants heart and breath back down in preparation for leaving the class.
- Goodbyes: The facilitator and assistants would make a point of saying good bye to each participant and ensured that they found their transport home safely.

(See Appendix 1: Example of session plan)

This outline and structure of the community group sessions was also used as a basis for the hospital sessions. The main distinction between the two groups was that the facilitator had to be more flexible with the start time of the hospital sessions. Whereas the community group started each session seated and worked their way up to standing (where possible) in the creative improvisation sections, the facilitating practitioner would find creative ways to draw the participants into the hospital sessions. This frequently consisted of the musician starting to play and patients being inspired to spontaneously dance with the facilitating practitioner, or alone in the dance space. Once present, the practitioner worked dynamically to keep the participants engaged and interested but aimed to follow the session format as described above.

Methods

Research question and objectives

Research question:

Can creative dance activities for people with a recent diagnosis of dementia and those in the later stages positively support their quality of life and wellbeing?

Objectives:

1. To better understand the experience and effect of specifically designed creative dance programmes from the perspectives of people engaged in them
2. To ascertain the feasibility of building a sustainable network of dance 'enablers' drawn from healthcare staff to facilitate beneficial activities for people in the community and in acute settings.

The study design

The study-design steering group comprised six older people (four affected by dementia), two healthcare professionals and two research colleagues. The data tools were piloted and revised with the consultants where needed prior to the study.

A two-cohort, repeated measures design alongside case studies was used to assess changes in quality of life and wellbeing overtime. Triangulation of methods proposed a rich source of data and the opportunity to corroborate findings across the methods¹⁰³.

Data tools

- Addenbrooks Cognitive Examination (ACEIII)
- Quality of Life Alzheimer's Disease (QOLAD)
- Kingston Care-giver Stress Scale (KCSS)
- Zarit Burden Interview [carer burden] (ZBI)
- Prosper Involvement (PI) Scale (third-person observer)
- Prosper Wellbeing (PWB) Scale (third-person observer)

The ACEIII tests five cognitive domain areas by inviting participants to complete a series of tests such as memorising a fictitious name and address over time, and naming drawn items. Each of the domain areas has a different number of items and, therefore, different maximum scores: i.e. attention, max 18; memory, max, 26; fluency, max 14; language, max 26; visuospatial, max 16. The maximum score of 100 denotes no cognitive impairment. A score of 82-88 is the cut off score for probable dementia.

The QOLAD questionnaire invites participants to self-rate their quality of life relating to twelve domains, for example, 'physical health', 'ability to have fun' and 'self as a whole' (N.B. the thirteenth domain 'money' was omitted in this study). The participant assigns to each domain a rating of 1-4 where 1 is 'poor' and 4 is 'excellent'. The maximum score is 48.

The KCSS questionnaire consists of 10 questions, for example, 'Are you having feelings of being overwhelmed/overworked/overburdened?', to which the participant assigns a rating of 1-5 where 1 is 'no stress' and 5 is 'extreme stress'.

The choice of tools for third-person observations, which aimed to assess levels of meaningful experiences, was drawn from established evaluation processes in education. In the early 1990s, the Research for Experimental Education Centre at the University of Leuven, Belgium, produced two observational tools, the Leuven Child Well Being Scale and the Leuven Involvement Scale for Young Children (see Appendix 2 and 3). The scales collectively measure the levels at which children are free from emotional tension and the intensity at which they are involved in an activity. The premise is based on an understanding of the link between emotional wellbeing in learning environments leading to emotional intelligence and good mental health, and the dimensions of focus, engagement and interest leading to significant changes for good.

The PI and PWB Scales used in the current study were adapted from the Leuven scales. They aimed to explore indicators of motivation, self-worth and confidence, resilience/self-reliance and social competence, all of which are commonly jeopardised in people living with dementia. Specific attention was paid to creative expression and embodiment, phenomena that are increasingly gathering interest in the literature on living well with dementia.

The PI Scale (Appendix 2) used a rating of 1-5 (1 = lowest) to quantitatively record participants' levels of involvement, commitment, creative expression, embodiment, verbal and non-verbal communication in up to fifteen 10-minute observation time-points evenly spaced throughout three dance movement activity sessions at base, mid and endpoints of the evaluation period. The Wellbeing scale (Appendix 3) recorded apparent wellbeing using a similar 5-point rating focusing on levels of liveliness, self-confidence, enjoyment, tension, listlessness and aggression/disruption.

Qualitative measures:

- Participant observation
- Film footage
- Face to face interviews
- Focus group discussions

These qualitative tools aimed to provide a phenomenological perspective to the evaluation. Open-ended question-frameworks were used to guide the focus of the interviews and focus group discussions (Appendix 4).

Research sites and participants

The two research sites, a town-centre community arts centre and a dementia-assessment unit in an acute NHS hospital, were purposively identified for their provision of RtD programmes.

Selective sampling was used to recruit research participants, wherein people who had participated in or facilitated the RtD programme were invited to take part. Table 1 shows the composition of participants and the methods assigned to each.

Table 1 shows the numbers in each participant group and the data methods in which they took part.

Composition of participants and assigned methods						
	People with dementia – community group	People with dementia – hospital group	Family carers	Care home staff	NHS hospital staff	Professional DtH practitioners
*ACE III questionnaire	x					
^ QOLAD questionnaire	x					
Kingston Caregiver Stress Scale			x			
Zarit Burden Interview			x			
Film	x	x	x	x	x	x
Observation Scales	x	x	x	x	x	x
Face to face interviews	x		x	x	x	x
Focus group discussions	x		x	x	x	x

*Addenbrooke's Cognitive Examination III; ^ Quality of Life Alzheimer's Disease questionnaire

Table 2 Flow and application of research tools

	Base-point	Mid-point	End-point
1. Addenbrook's Cognitive Assessment Scale	x		x
2. QOLAD questionnaire	x	x	x
3. Involvement and wellbeing scales (*T1-T5), observation scales and film footage	x	x	x
4. Involvement and Wellbeing scales (*T6-T10), observations and film footage	x	x	x
5. Involvement and wellbeing scales (*T11-T15), observations and film footage	x	x	x
6. Focus group discussions/ interviews		x	x

*T1-T15 = Observation time points from base to end point

Table 2 shows the flow of procedures from base to end point. To gain a broad picture of cognitive ability over time, a sub-sample of six participants completed ACEIII assessments at base and end points. These participants and seven others completed QOLAD questionnaires at the same time points. For the Involvement and Wellbeing Scales, two researchers independently observed dance participants during sessions at base, mid and end points. In each dance participants were observed five times for 10 minute time periods spaced evenly over the 90-minute sessions in the community group and 60 minutes in the hospital group. The observed time points were coded T1-T5 (basepoint), T6-T10 (midpoint) and T11-T15 (endpoint). The researchers also recorded in writing observed incidents that they deemed noteworthy.

Film footage of consenting participants was taken via a static camera located appropriately discretely in the dance space.

Coding and data analysis

To observe confidentiality and anonymity, participants were allocated unique numerical and/or alphabetised codes. Participants with dementia were allocated a numerical code followed by a 'C' for the community group, or 'H' for the hospital group, i.e. Dancer01C-Dancer15C and Dancer01H-Dancer05H. Likewise family carers were coded Family Carer01C – 03C and Family Carer01H-02H. Healthcare staff and dance practitioners were identified by their professional role.

Word Excel and the Statistical Package for Social Science (SPSS) data software programmes were used to analyse quantitative data. Phenomenological observation notes and verbatim transcriptions of the focus group discussions and interviews were subjected to thematic analysis by both researchers independently and by an additional research assistant. By consensus, a template analysis was used to organise the data thematically^{104 105}.

Film footage of six participants, three in each of the settings, was analysed by three hospital doctors at Registrar level who were, or had recently been part of the Department of Healthcare of the Elderly medical team or who had significant experience with dementia patients in the community. Incidents perceived by the analysts as relating to independence, social participation, wellbeing and involvement, and others deemed noteworthy, were recorded on thematic framework template (Appendix 5).

Ethics

The study protocol was submitted via the National Research Ethics System (NRES) to the South London Research Ethics Committee and the East London NHS Foundation Trust Research Development team. Approval was granted for both sites in August 2013.

The research processes adhered strictly to the approved protocol, which emphasised ethical rigour relating to research with vulnerable people¹⁰⁶, in this case people who have cognitive and/or sensory challenges and people for whom English may not have been their first language. Rigorous attention was given to: the suitability of verbal/written information; the recruitment time-frame to ensure full understanding of the processes; consent/proxy issues; and the potential need for on-going individual support for participants relating to the purpose and processes of the study over its duration. Storage of data and access procedures met the terms of the Data Protection Act.

Where mental capacity to give informed consent was in question, the chief investigator (registered nurse with a specialism in dementia care) discussed with care home or NHS staff whether or not an approach might be made to the person's closest family member/carer for proxy consent.

The study's processes were not expected to cause distress or to have a negative effect on participants. All procedures were noted to have either a neutral effect (i.e. participant observations; film footage), or a positive effect (i.e. interviews/focus group discussions – opportunities for participants/family carers to talk about their experiences).

Results

Final sample

Table 3. Study participants

	RtDC group	RtDH group	Across both groups	Total
People with dementia	14	5		19
Family carers	3	2		5
Care-home staff	3			3
Dementia Support workers	3			3
NHS hospital staff		5		5
Professional RtD practitioners			2	2
Total				37

A total of 37 people across the Remember to Dance in the Community (RtDC) and the Remember to Dance in Hospital (RtDH) activities took part in the study. Table 3 shows the component groups. From base to endpoint, quantitative data sets were completed for 16 people with dementia (11 = RtDC; 5 = RtDH) together with and two family carers. A total of 15 people, comprising those with dementia, family carers and care-home staff took part in the focus group discussions, and three members of staff from a care-home, five NHS hospital staff and two RtD practitioners were interviewed.

Findings

The findings are set out in the following order: quality of life, functioning, motivation, creative and emotional expression, relationships/social competence and overall wellbeing.

Quality of life - RtDC group (n= 11)

Twelve of the 13 QOLAD questions were used in this study¹, each with rating range of 1 = poor; 2 = fair; 3 = good; 4 = excellent. In the RtDC group, out of a total maximum of 48, the overall mean scores for self-reported perceptions of QOL across the 22 month study period showed a very marginal change of 29.8 at basepoint and 29.6 at endpoint.

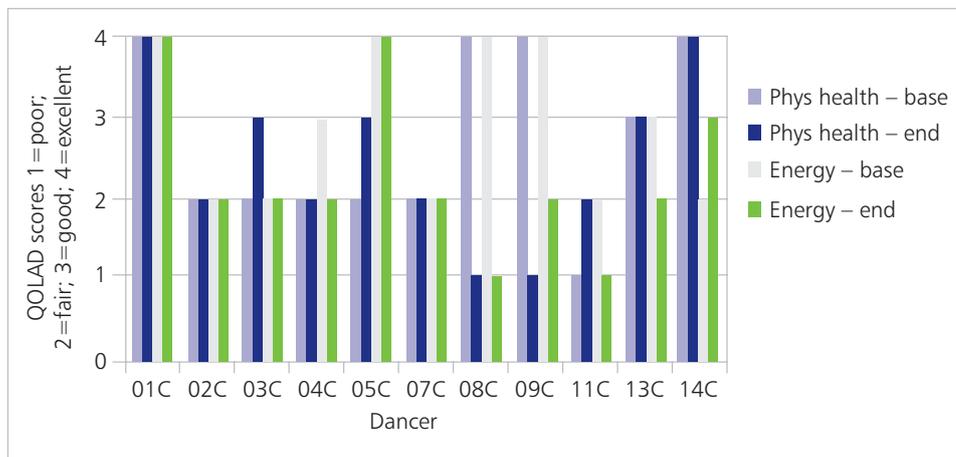
Mean scores for the individual questions (max = 4 each) showed a fall in participants' perceptions of:

- Physical health - 2.5 to 2.4
- Energy - 2.7 to 2.1
- Memory - 2.4 to 2.0
- Ability to do chores around the house - 2.5 to 2.4
- Overall living situation - 2.9 to 2.6
- Life as a whole - 2.8 to 2.5

Marginal rises were seen in:

- Mood - 2.5 to 2.6
- Ability to have fun - 2.4 to 2.6
- Self as a whole - 2.4 to 2.5
- Family - 2.6 to 3.1
- Marriage - 2.1 to 2.4
- Friends - 2.1 to 2.5

Figure 3. RtDC group (n=11): Base to endpoint scores for 'physical health' and 'energy'



¹ Question on QOL relating to 'money' omitted.

Figure 3. shows that five of the dancers (01C, 02C, 07C, 13C and 14C) rated their physical health identically at base and endpoints. Three (03C, 05C and 11C) reported a one-point rise and two (08C and 09C) a two-point fall. Four dancers (04C, 09C, 11C and 13C) reported a one-point fall in energy from base to endpoint, and dancer 08C a two-point fall. The only increase in energy was in dancer 14C, who reported a one-point rise from 'fair' to 'good'.

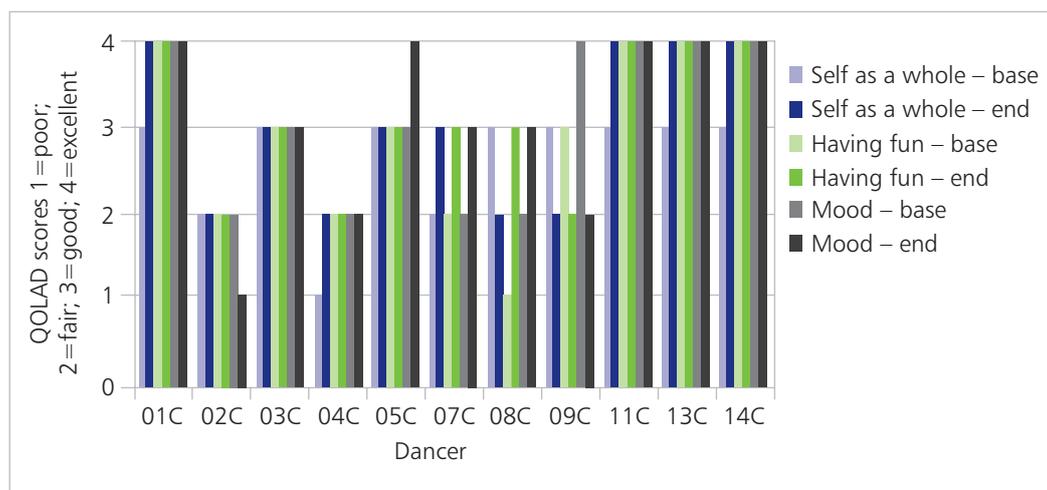
The mean fall in both physical health and energy across the group over the 22-month study period, did not necessarily correspond to focus group and interview commentary, for example:

'It's good for you; keeps you moving. More energy to do other things'.
 (Dancer 03C, midpoint focus group)

'Some have long-term pain but once the music starts you see them moving'.
 (Nursing Assistant, endpoint interview)

'There's greater physical movement. When the music starts, it really gets them going'.
 (Nurse Manager, endpoint interview)

Figure 4. RtDC group (n=11): Base point to endpoint scores for 'self as a whole', 'having fun' and 'mood'

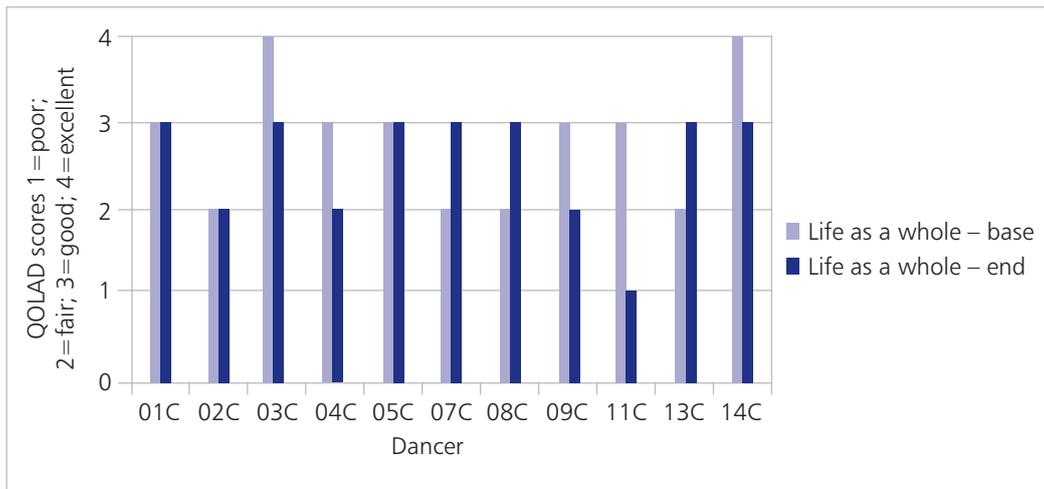


The next two Figures show participants' self-rated QOL relating to emotional health. Figure 4 shows that seven dancers (01C, 02C, 03C, 05C, 04C and 11C and 13C) rated their 'self as a whole' identically from base to endpoint. Three (04C, 07C and 14C) reported a rise of one point and two (08C and 09C) a one-point fall.

With the expectation of dancer 09C, whose rating for 'ability to have fun' fell by one point, all others were either unchanged or rose by one point.

Six dancers' (01C, 03C, 04C, 11C, 13C and 14C) ratings for overall mood were identical from base to endpoint, three (05C, 07C and 08C) rose by one-point, one (02C) fell by one point and one (09C) by two points from 'good' to 'poor'.

Figure 5. RtDC group (n=11): Base to endpoint scores for 'life as a whole'



Scores for 'life as a whole' were unchanged from base to endpoint for three dancers (01C, 02C and 05C), fell by one point for four dancers (03C, 04C, 09C and 14C), and by two points for dancer 11C. Three others (07C and 08C and 13C) reported a one-point rise (Figure 5).

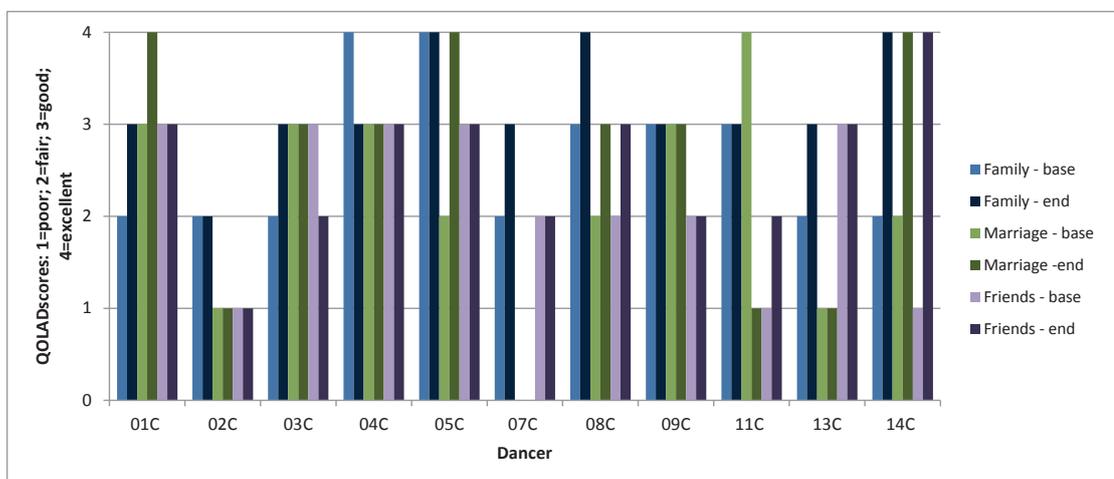
The overall rise in mood-related QOL from base to endpoint was considerably supported by commentary in focus groups and interviews, with many references to 'feeling happy/happier/good', 'having fun', 'enjoyment' and 'lifting the spirits/mood'.

The positive benefits to QOL were also illustrated by the regular attendance of many of the participants, with some overcoming transport difficulties and feeling unwell prior to a session:

I felt a bit rough this morning; didn't want to come out but I knew it would do me good. And it did!

(Dancer 07C, focus group midpoint)

Figure 6. RtDC group (n=11): QOLAD scores base to endpoint for 'family' and 'marriage' and 'friends'



The highest level of change from base to endpoint related to QOL and relationships. Figure 6 shows self-rated QOL relating to 'family' rose by at least one point for six dancers (01C, 03C, 07C, 08C, 11C and 14C). Four (02C and 05C, 09C and 11C) were unchanged and one (04C) fell by one point from 'excellent' to 'good'.

Ratings for 'marriage' showed a similar pattern with five rises of at least one point from base to endpoint (01C, 05C, 08C and 14C), five (02C, 03C, 04C, 09C and 13C) unchanged, and one dancer (11C) reporting three-point fall from 'excellent' to 'poor'. None of the dancers' actual marital status changed during the study period.

With the exception of dancer 03C, who reported a fall from 'good' to 'fair' for QOL relating to 'friends', all ratings were either unchanged (01C, 02C, 04C, 05C, 07C, 09C, 11C and 13C) or rose by at least one point (08C, 11C and 14C). Dancer 14C reported a three-point rise from 'poor' to 'excellent'.

The social aspect of the RtD programmes was among the most commented upon in the focus group discussions and interviews, for example:

'We enjoy ourselves and dance; social is important.' (Dancer 02C, endpoint focus group)

'On the whole it is a positive experience; social makes it positive.'
(Dancer 03C, endpoint focus group)

'When you connect - once you hold their hands they join in.'
(Nursing Assistant, endpoint interview)

'They don't do anything; some don't have friends any more. Something interesting is happening and they join in together.'
(Nursing Assistant, endpoint interview)

Figure 7. RtDC group (n=11): QOLAD scores base to endpoint (EP) for 'chore ability' and 'memory'

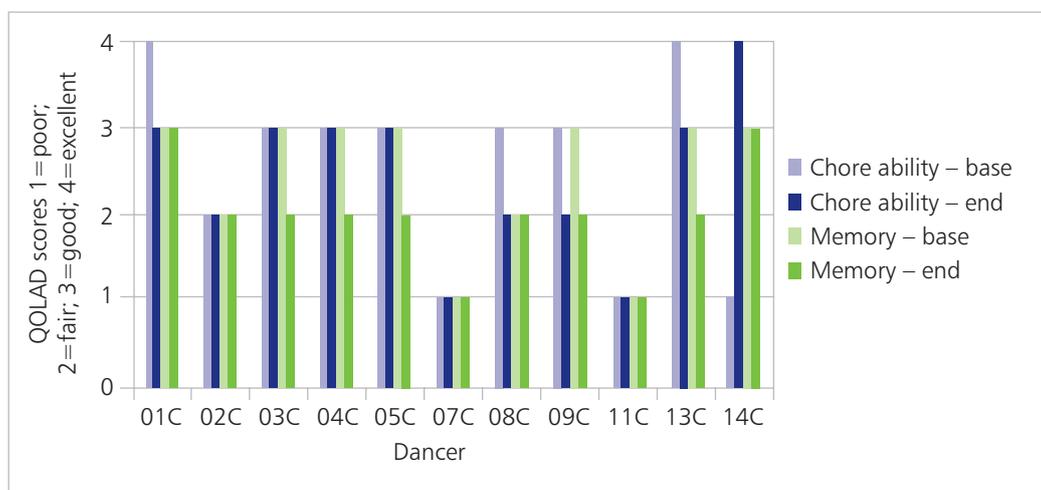


Figure 7 shows that six dancers (02C, 03C, 04C, 05C, 07C and 11C) rated their 'ability to do chores around the house' identically from base to endpoint. Four (01C, 08C, 09C and 13C) fell by one point and dancer 14C reported a two-point rise from 'poor' to 'excellent'.

Ratings for 'memory' from base to endpoint were the only ratings not to show any rise. Six dancers (01C, 02C, 07C, 08C, 11C and 14C) reported no change and five (03C, 04C, 05C, 09C and 13C) a one-point fall.

Commentary around ability and memory indicated that the dance activities were perceived by many to help support both, for example:

'I think this dancing is very good as you can remember something.'
(Dancer 02C, midpoint focus group)

'Remembering the sequences, challenges, are sometimes met successfully and sometimes not. On the whole it is a positive experience.'

(Family carer 2C, endpoint focus group)

Quality of Life - RtDH group

Given the intensity of their on-going assessment programme within the assessment unit and the potential for overburdening participants, no attempt was made to acquire data via the QOLAD questionnaire in the hospital group. However, a number of comments made by hospital staff at interview highlighted the pleasure and diversion that the sessions were thought to provide, for example:

'They don't have much joy. This gives them joy. Make people happy. The patients really enjoy it'
(Clinical Nurse Manager, endpoint interview)

One nursing assistant pointed to enjoyment associated with the novelty value of the sessions:

'It's different every time. Some never joined in a group like that in their lives. I find it good, very good.'
(Nursing assistant, endpoint interview)

In both groups evidence of extended physical movement was observed. This applied to episodes of increased stamina, flexibility and co-ordination. The following observations illustrate how dancers moved through a range of activities with apparent enjoyment and attention:

[Dancer 05C] Following instructor's guidance on hand and arm rubbing activity; paying attention. Patting abdomen arms and legs as instructed. Patting thighs in time with the music and singing along. Passing ball along and singing other participants names as part of the song. Attentive towards instructor and musician. Engaging in breathing activities moving arms up and down and side to side. Moving arms down legs in stretching activity. Able to do this and keep up with the group.

(Hospital Registrar 01, midpoint film).

[Dancer 02C] able to do the fine finger movements as part of the dance activity. Fifteen minutes into the session still engaged and following instructions. Observing the instructor mainly and at times other participants. Able to follow four step dance movements. Some difficulty occasionally with faster movements. Able to do tasks requiring more dexterity. Remains engaged and focused on the activities 30 minutes into the session. attentive towards instructors guidance. Stood up for standing up part of the dance routine. Appears to be enjoying the stand-up dancing.

(Hospital Registrar 01, midpoint film).

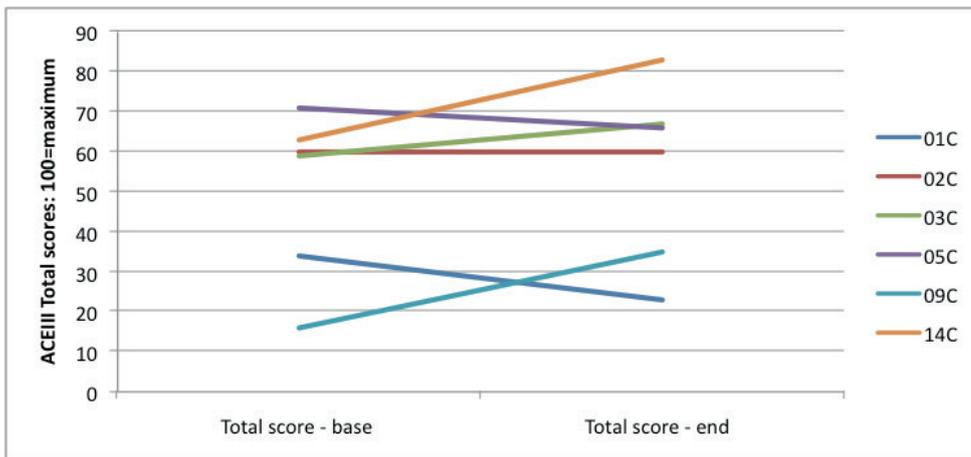
The accordion starts to play. [dancer 05H] lifts her arms up and down in time with the accordion; she stretches down towards her ankle end raises her arms looking attentively at the facilitator. She is able to stretch farther towards her toes as the warmup exercise continues.

(Hospital Registrar 02, midpoint film).

Functioning – RtDC group

The latter two items on the QOLAD questionnaire, 'ability to do chores around the house' and 'memory' relate to self-perceptions of functioning. The Addenbrook Cognitive Assessment III (ACEIII) test investigated functioning in the RtDC group objectively and in more detail centring specifically on the cognitive domains of 'memory', 'language', 'fluency', 'visuospatial' and 'attention'. Six participants completed the assessment at base and endpoint.

Figure 9. RtDC group(n=6): ACE III mean scores base to endpoint for cognitive functioning



100 = maximum; 82-88 = cut off score for probable dementia

Contrary to expectations, the total mean score across the group for all five domains rose from 50.8, out of possible maximum of 100 at basepoint (range 16 to 71) to 55.3 at endpoint (range 23 to 83). This rise was largely attributed to three dancers (03C, 09C and 14C) whose scores rose consistently (Figure 8).

The ACEIII domains of memory, 'attention' and 'visiospatial' functioning related closely to the intended outcomes of the RtD activities. The mean scores across the group from base to endpoint were:

- Memory – 8.3 to 11.3 (max 26)
- Attention – 9.5 to 10.5 (max 18)
- Visiospatial – 12.3 to 12.1 (max 16)

Figure 8. RtDC group (n-6): ACE III mean scores base to endpoint for cognitive functioning

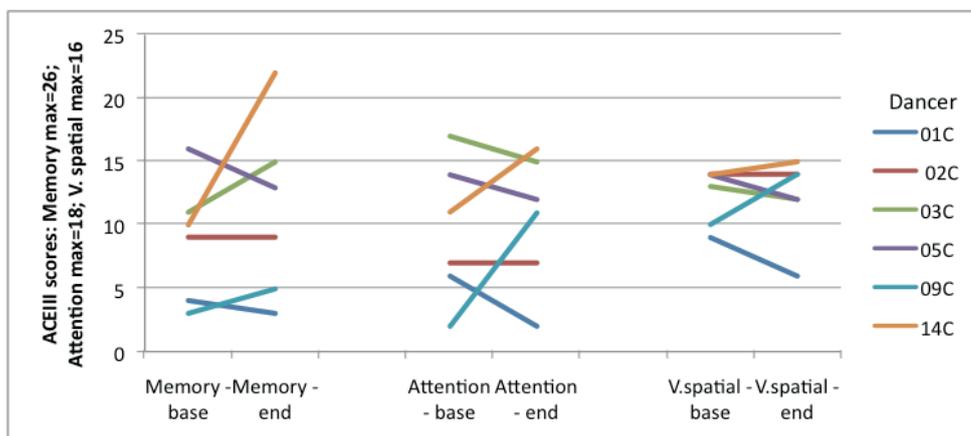


Figure 9 shows the scores for the individual participants. Scores for 'memory' (max=26) fell marginally for dancers 01C and 05C and rose marginally for dancers 03C and 09C. Dancer 14C's score showed the highest rise of 10 at basepoint to 22 at endpoint. Scores for 'attention' (max=18) fell marginally for three dancers (01C, 03C and 05C) but rose from 2 to 11 for dancer 09C and from 11 to 16 for dancer 14C. Scores for 'visiospatial' functioning (max=16) showed a similar pattern with a marginal fall for three dancers (01C, 03C and 05C) and a marginal rise for dancers 09C and 14C.

Phenomenological observations indicated that all of the participants across the whole RtDC group maintained their dance-related functioning, at least half improved from base to endpoint and two showed a marked improvement. This string of observation notes refers to dancer 14C:

We had been told prior to [dancer 14C] attending that he could be difficult to engage and was not always willing to join in. Additional attention was needed by [facilitator] to help bring his focus back to the task at hand

(Dance practitioner 02, basepoint notes).

[Dancer 14C] sits at the beginning with his arms crossed, not looking around

(Hospital Registrar 03, basepoint film).

[Dancer 14C] Shift in focus; attention for prolonged periods. More interested in neighbours' movements. Some changes in sequence lost, but responding to more and appears to notice changes more rapidly without prompts from carer/facilitators

(Researcher 01, mid-point notes).

[Dancer 14C] Movement pace and coordination has improved, movements and gestures smoother, swifter and faster

(Researcher 02, endpoint notes).

Qualitative commentary from observations and film footage suggested that most dancers maintained or increased ability relating to coordination, flow, organising and sequencing over the 22 months. Dancer 03C, whose ACEIII score showed a slight upward trajectory from base to endpoint expressed his own perception of progress, saying 'I have improved as I have gone along'. Other illustrative comments included:

Interesting to see [dancer 09C] having less of a challenge following sequenced movements – (e.g. rhythmic tapping hands on shoulders/elbows/knees in order). At base line he was unable to follow unless facilitated one-to-one and now his attention is held for much longer

(Researcher 01, mid-point notes).

[Dancer 13C] at first had trouble remembering some of the names, but with assistance he picked up on some participants' names when throwing the ball to them

(Dance practitioner 02, mid-point notes).

[Dancer 14C] was in very good form today, even though he was a little sleepy before the session started. His responses were slightly quicker than in the past and he maintained engaged in the movements for the majority of the session

(Dance practitioner 02, endpoint notes).

Dancer 02C referred collectively to memory, physical and cognitive functions:

'I think this dancing is very good as you can remember something, remember meeting them, and brings back memories, most important to dance as your brain tells your feet what to do.'
(Dancer 02C, midpoint focus group)

Functioning - RtDH group

Analysis of researcher notes and film footage provided a picture of functional ability in the RtDH group during the sessions. These often referred to improvements overtime in the pace of participants' assimilating instructions and increasingly challenging sequenced-movements, for example:

[Dancer 01H] starts swaying in time with music and is able to follow the instructions of the facilitator in stretching down to her toes and then upwards. She is able to do faster movements as the warmup exercise progresses to music. She's able to alternate between putting hands on her shoulders, then on her chest and then outwards.
(Hospital Registrar 02, basepoint film).

[Dancer 01H] concentrates on the more complicated movements using feet and hands together. She is able to switch the movement from side to side to up-and-down movements and hands from side back to the middle to side. She is able to concentrate on the exercise and keep up with the facilitator. A ball is given to her; when she sees that the others have two balls she asks for one more. She listens to the instructions. Able to follow the exercise. She asks questions of the facilitator to get a clear understanding of the exercise.

(Hospital Registrar 02, midpoint film).

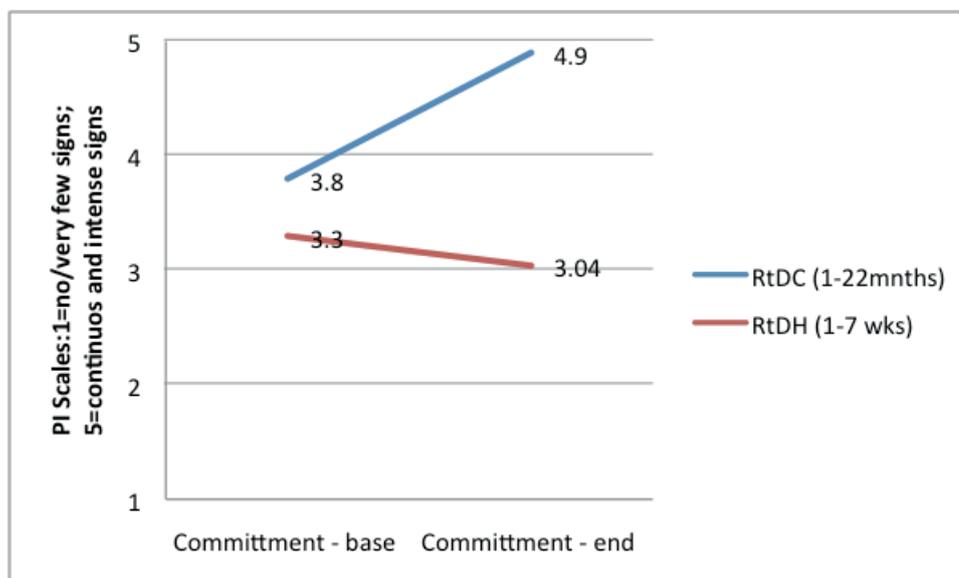
Findings from the Prosper Involvement and Wellbeing Scales

The following section reports the findings from observations that were systematically mapped onto the Prosper Involvement (PI) and the Prosper Wellbeing (PWB) Scales. Eleven participants in the RtDC group and five in the RtDH group were observed for 10-minute time periods spaced evenly over their 60 or 90-minute sessions. The community group were observed fifteen times over 22 months, and the RtDC group 10 times over an average of seven weeks. The observed time points for the community group were coded T1-T5 (basepoint), T6-T10 (midpoint) and T11-T15 (endpoint), and in the hospital group, T1-T5 (basepoint) and T6-T10 (endpoint).

Motivation

Motivation was assessed in terms of commitment/adherence (to a task), alertness and concentration across the evaluation time period.

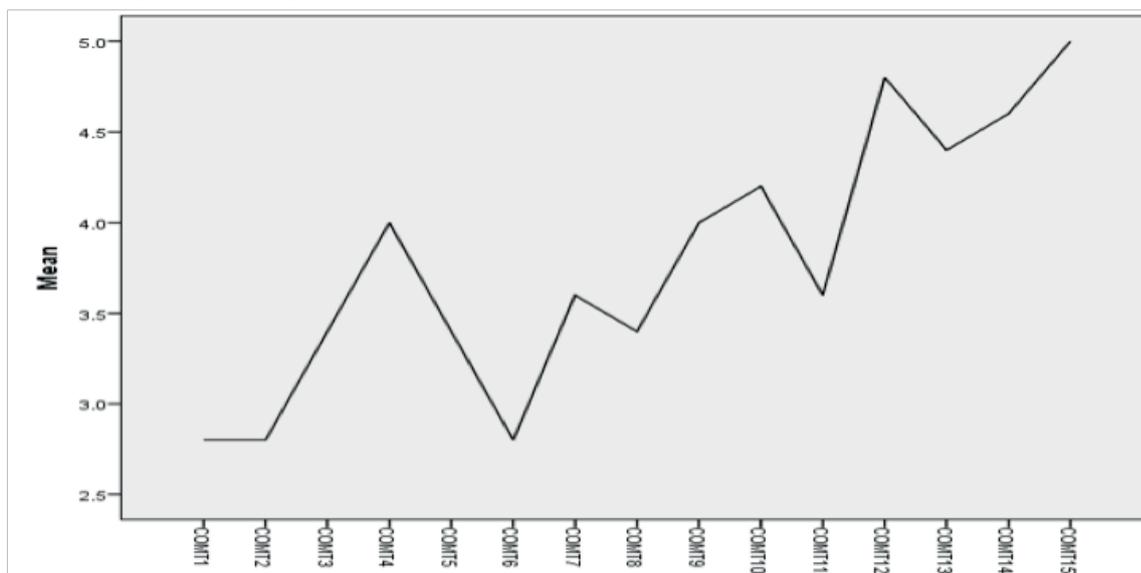
Figure 10. RtDC (n=11) and RtDH (n=5) groups: Mean overall scores base to endpoint for commitment



Key: 1 = very little or no apparent signs; 2 = some signs but frequent disconnections; 3 = signs for around half the activity; 4 = consistent signs with very few disconnections; 5 = continuous and intense signs

Figure 10 shows a rise in the total mean scores for commitment from base to endpoints in the RtDC group from 3.8 to 4.9 and a slight fall in the RtDH from 3.3 to 3.

Figure 11. RtDC group (n=11): mean levels of commitment (COM) over 22 months



10-minute observation time-points: COMT1-T5 = basepoint; COMT6-T10 = midpoint; COMT11-T15 = endpoint

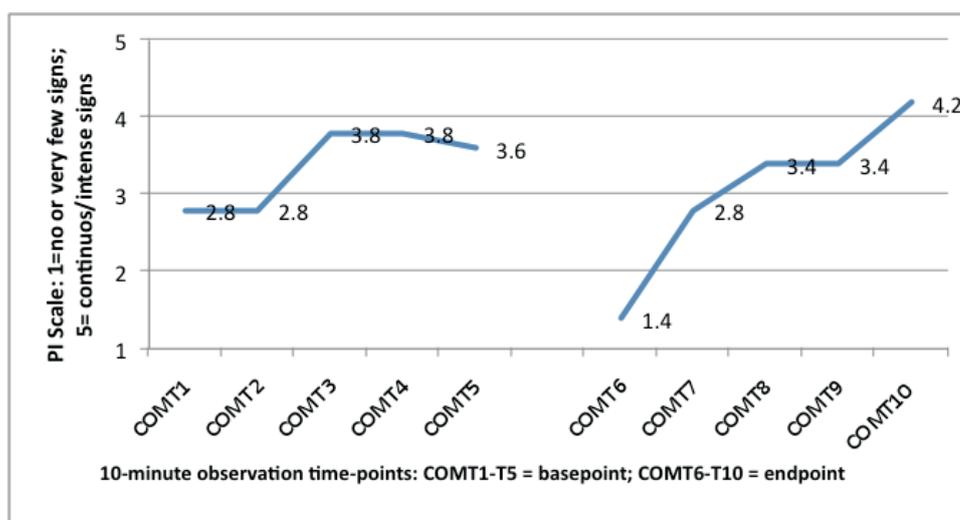
Figure 11. shows the pattern of ascent in commitment in the RtDC group at basepoint (T1) to end point (T15). It should be noted that T1, T6 and T11 refer to the first 10 minute observation time-point in each session in which participants settled and prepared themselves for the start of the activities (extended in the first session). It is interesting to note a higher level at T11 compared with T1 and T6, which related to higher levels of concentration on intergroup socializing. The marked rise from each of the first observation time points to the next illustrates immediate alertness and concentration as soon as the movement activities began.

Researcher notes confirmed a general maintenance or improvement in commitment/adherence to tasks, and alertness over time.

[Dancer 11C] improved commitment and energy. Rarely losing focus throughout session. Contrast from beginning sessions, where [dancer] needed much more prompting from carer/facilitator.
(Researcher 01, midpoint notes)

[Dancer 14C] a lot more competent than when he started; picks up all the slower movements a lot quicker and mirrors in time.
(Researcher 02, endpoint notes)

Figure 12. RtDH group (n=5): mean levels of commitment (COM) over an average of seven weeks



The fall from 3.3 to 3 in mean scores in the RtDH group for commitment may be explained by a small number of participants being present in the dance circle at the start of the endpoint observation session, as illustrated in Figure 12. This was not uncommon in the RtDH group. Researcher 02 noted that of the observed sessions, between 20% - 60% of the eventual number of participants were seated in the dance circle before the movement activities started. Illustrative notes from the researcher and film analysts included:

It's not always easy to get participants gathered at beginning, sometimes it takes music to draw them in, or the facilitator/staff to invite, encourage or guide them to chairs. Once sessions starts participants drift in to join and group size increases.

(Researcher 02, midpoint notes)

Dancer 04H is sitting at a dining room table talking to another resident when the filming starts. She is approached by a member of the facilitators and has a conversation with them for a minute. She does not get up to join in with the accordion. She watches as the dancing begins and appears interested in the singing, she intermittently talks to her neighbour at the table. Dancer joins the group after 15 minutes.

(Hospital Registrar 02, midpoint film)

Once dancers 01H and 05H had joined the activities, their levels of commitment appeared largely consistent:

[Dancer 5HD] Very engaged, enjoyed what she was doing would laugh, smile and chuckle. A lot of energy, dedication, creativity, vocal communication in her dancing. Sustained her commitment and focus throughout once session began.

(Researcher 02, basepoint notes)

[Dancer 01H] watches a conversation between two others and she is able to follow the instructions during stretching exercises. She pushes her arm back to stretch it as far as possible. She laughs with the facilitator and discusses the stretch with a facilitator. She then engages with some other stretches and adjusts her position when corrected by the facilitators.

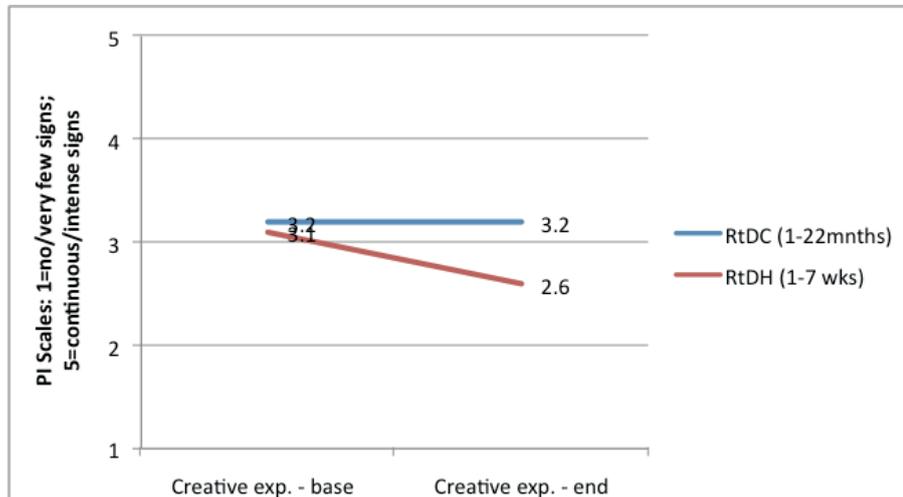
[Dancer 05H] copies the facilitator with the movements that go along with the song and laughs when the facilitator talks about candy floss. She listens while other suggestions are being given for movements but does not offer any suggestions. A coloured silk [parachute] came out. Dancer 05H holds one side of it as she participates with the exercise with the group. She tries to keep the ball on the silk with the others. She flips up her side to get the ball to jump and appears to grasp the purpose of the task well. She laughs and she celebrates when they get the ball to the centre, she smiles and makes a comment at the end of the session.

(Hospital Registrar 02, basepoint film footage)

Creative and emotional expression

Creative expression was assessed in terms of creative reactions/adding something extra/being spontaneous/improvising new ideas, and emotional expression in terms of embodiment (whole-body connection/captivation/appearing emotionally engrossed).

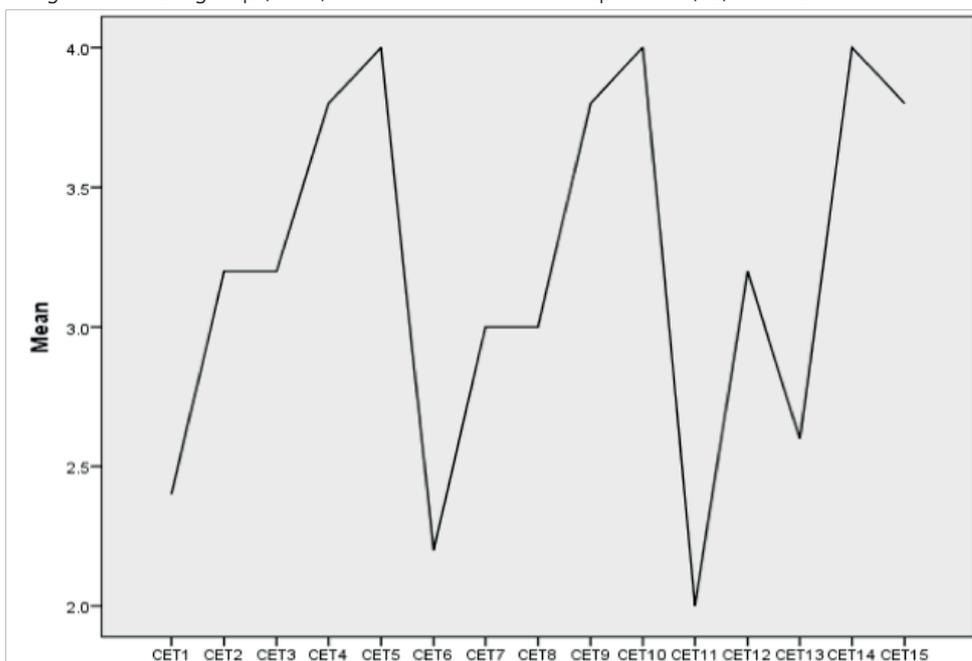
Figure 13. RtDC (n=11) and RtDH (n=5) groups: Mean overall scores base to endpoint for creative expression



Key: 1 = very little or no apparent signs; 2 = some signs but frequent disconnections; 3 = signs for around half the activity; 4 = consistent signs with very few disconnections; 5 = continuous and intense signs

A mean score of 3.2 was seen for creative expression at both base and endpoints in the RtDC group and a fall from 3.1 to 2.6 in the RtDH group (Figure 13). As with the all other scores, this latter picture may relate to complex co-factors, for example drug therapy and timing of the dance sessions, which may clash with or cross over other therapeutic treatments or assessments for individual participants.

Figure 14. RtDC group (n=11): mean levels of creative expression (CE) over 22 months



CET1 – CT15 = 10-minute observation time-points: T1-T5 = basepoint; T6-T10 = midpoint; T11-T15 = endpoint

Figure 14 shows a consistent pattern across each of the observed sessions in the RtDC group. This illustrates limited creative expression before the movement activities started (T1, T6 and T11) and a peak towards the end of each session.

On this figure, the structure of the sessions is clearly represented; practitioner-led warm-up movements leading to opportunities for creative expression with a climatic point just before the practitioner-led cool-down movements.

The use of props, such as scarfs, ribbon sticks and musical instruments, engendered higher levels of creative expression. There is also an indication that participants were more confident in spontaneous creativity during led movements at the end of the session compared to the beginning.

The following comments refer to creative spontaneity:

[Dancer 11C] starts twirling umbrella spontaneously, not always doing what others were doing. (Hospital Registrar 02, film footage midpoint)

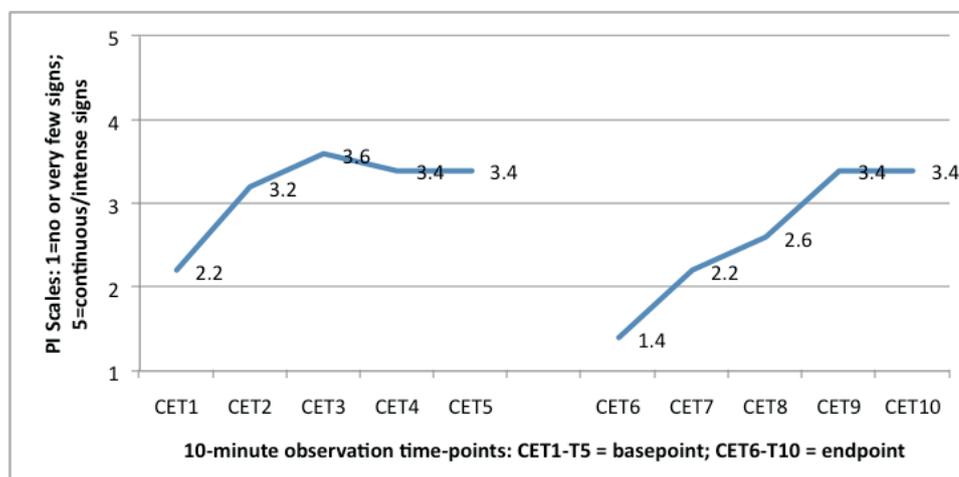
[Dancer 07C] Very enthusiastic; likes to improvise with creative movement at any opportunity. Follows movement exercises intently. Looks for opportunities to be expressive, adds own dynamic to his moves. Expressive with the balls waving from side to side, co-ordinated with facial expressions. (Researcher 02 notes, midpoint)

[Dancer 02C] seems too self-conscious to improvise. Tending to withdraw from the activities completely at these times. (Researcher 01 notes, basepoint)

Although [Dancer 02C] chose not to stand, but she did dance in her own way in her chair. (Dance Practitioner 01 notes, midpoint)

High points of creative expression included participants leading movement from the centre of the circle (often dancer 07C), two participants mirroring one another (often dancer 04C and her carer), and a prolonged seated 'Irish' dance from a wheelchair-bound participant, which engendered attention from all other dancers and applause once finished.

Figure 15. RtDH group (n=5): mean levels of creative expression (CE) over an average of seven weeks



Key: 1 = very little or no apparent signs; 2 = some signs but frequent disconnections; 3 = signs for around half the activity; 4 = consistent signs with very few disconnections; 5 = continuous and intense signs

The upward trajectory of mean scores across the hospital group towards the end of the sessions (Figure 15) reflects the pattern of creative expression observed in the community group.

Figure 16. RtDH group (n=5): individual levels of creative expression (CE) at base to endpoint sessions

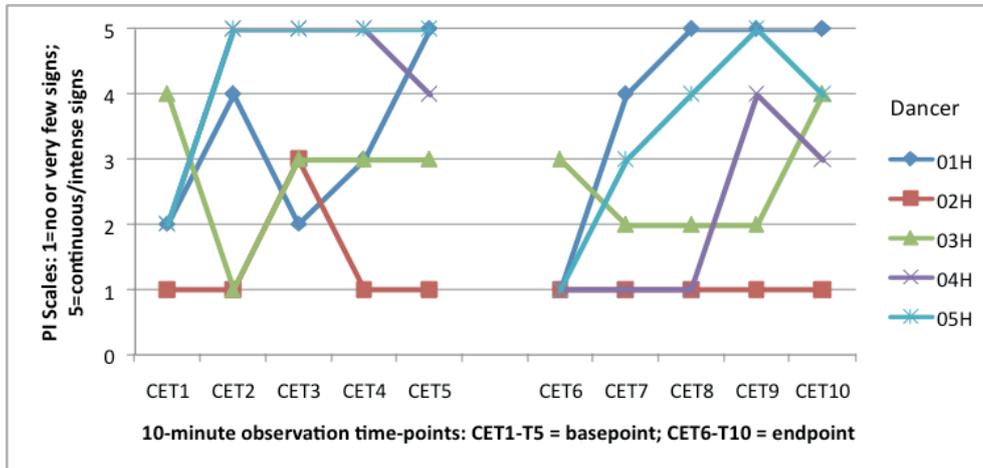


Figure 16 illustrates frequently-observed surges of creativity expression among the dance participants in the hospital setting, which unlike the RtDC group were more hap-hazard and did not occur at consistent times during the sessions. For example, dancer 05H and 04H show a marked rise between T1 and T2 but dancer 03H shows the opposite. Dancer 01H demonstrates peaks of creative expression at T5, during the last 10 minutes of the basepoint session, and at T7, around 20 minutes into the endpoint session. Dancer 04H shows levels of 5 and 4 in the basepoint session but surges only briefly from a rating of 1 at T6 and T8 to 4 at T9 at end point.

This picture indicates that creative expression is not necessarily dependent on specific activities. One researcher noted:

Can be bursts of creative expression at any point during session, not always following the facilitator. One or two participants at any given moment could get up out of their chair and break into a solo dance in the centre of the circle, especially if suddenly moved by a change in music or song. (Researcher 02, midpoint notes)

Specific examples of creative expression in the RtDH group included:

Scene starts with group sitting in circle. Dancer04H starts by punching the air with both arms then dropping her arms then lifting both arms into the air. She laughs and points to the facilitator at a joke between them. She starts tapping her hands on her knees end moving her feet in time with the music spontaneously. (Hospital Register 03, midpoint film)

[Dancer 01H] is given a tambourine and starts to shake it. She continues to play the tambourine and tap throughout the song... changes her style of playing and shakes it with more vigour from side to side. (Hospital Register 03, midpoint film)

[Dancer 01H] is given a scarf which she immediately starts to use and sways it from side to side. She gets up and walks about in the middle of the chairs waving the scarf from side to side. She engages with two of the other participants and facilitators. At one point she starts waving the scarf very vigorously and then starts moving more rhythmically again. She continues to dance around the room and puts a scarf on another participant's shoulder smiling throughout.

(Hospital Register 03, midpoint film)

The frequent occurrence of participants spontaneously adding their own gestural movement to activities or interacting gesturally with others in the group, often through props, and the related relevance of session timing was noted by the researchers, for example:

Some participants would come to life even more with the props towards the end of the session they would often engage here more with the facilitators and other participants and by themselves.

Compared with the RtDC group, the RtDH group is less inhibited, more in touch with impulses – maybe depending on degree of medication and levels of energy at any one time. Notice morning sessions were often more lively than a session straight after lunch.

(Researcher 02, midpoint notes)

Embodiment

Embodiment was measured in terms of physical manifestations of connection or captivation within an activity in which the outside world appeared insignificant. This was associated with confidence within the group to fully submit to emotional expression.

Figure 17. RtDC (n=11) and RtDH (n=5) groups: Mean overall scores base to endpoint for embodiment

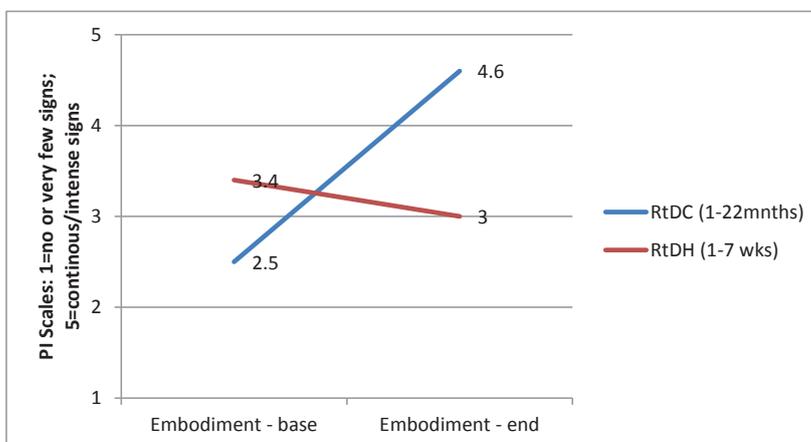
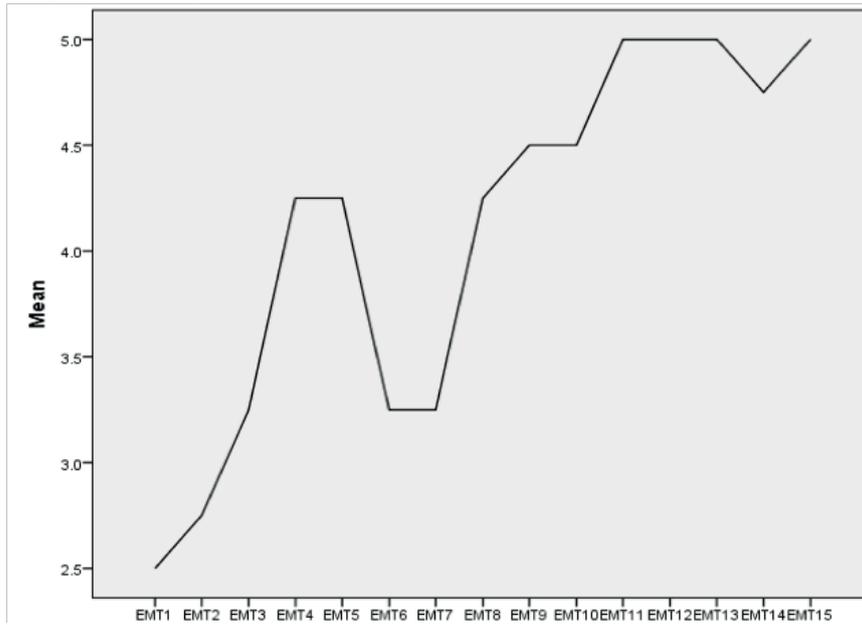


Figure 17 shows that the mean scores for embodiment from base to endpoint were 2.5 to 4.6 in the RtDC group and 3.4 to 3 in the RtDH group. In the former, the rise may be associated with evolving confidence and ease over time to engage in activities in an embodied way.

Figure 18. RtDC group (n=11): mean levels of embodiment (EM) over 22 months



EMT1 – EMT15 = 10-minute observation time-points: T1-T5 = basepoint;
T6-T10 = midpoint; T11-T15 = endpoint

Figure 18 shows the trajectory of embodiment across the group from base to endpoint. Here again, lower levels are seen at T1 and T6 (before the start of base and midpoint sessions), however, it is interesting to notice the high level at T11, 10 minutes prior to the endpoint session, which indicates embodiment within a social context. The levelling off during sessions may be explained by the following observation notes, which also highlight the relevance of music in creating environments for embodied experiences:

Embodiment seems often dependant on the activity and stamina of participant. In some cases, for example [dancer 11C] would take a while to ‘drop into’ the session, and would become more embodied as session progressed. Others would be very embodied from start and then tire in the middle or towards end of class.
(Research 2, endpoint notes)

Music and singing often would assist the participants to be fully embodied in what they were doing with joy and aliveness. Slow music would assist participants to feel what they were doing, a change of tempo allowed them to enhance their connection to what they were doing. If tempo increased in a creative, improvised section of the session, some participants could speed up their own movements and still remain fully embodied.
(Researcher 2, endpoint notes)

Embodiment in practitioner-led movements, such as slow arm-stretches, appeared enhanced by the practitioners’ offering visualisation (e.g. reaching for the sun/swaying like a tree). Embodied occasions were more prevalent in self-directed movements, such as rhythmic movements with large feathers. One family carer expressed her enjoyment in being able to release emotion by being immersed in an activity:

‘I find it a useful place to let off steam. Because you do these incredibly stupid activities, and it’s great fun. And it’s releasing it.’
(Family carer 2C, mid-point focus group)

Figure 19. RtDH group (n=5): mean scores for embodiment (EM) over an average of seven weeks

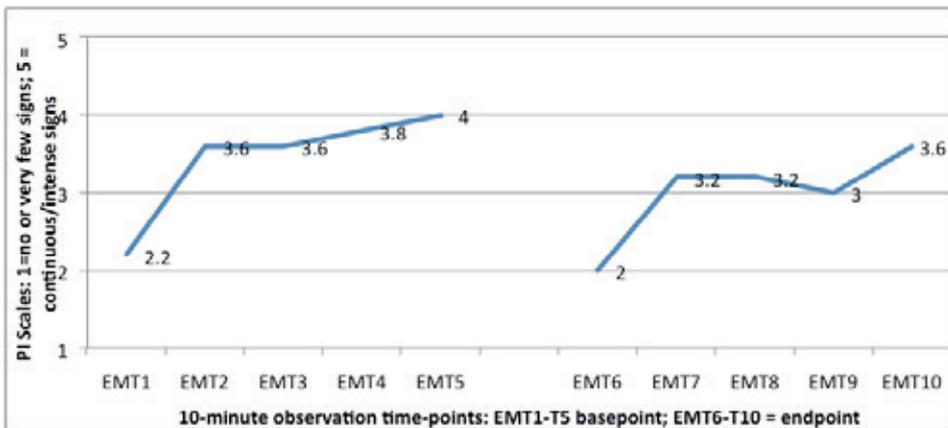


Figure 19 shows flow of embodied experiences in the RtDH group, which was similar to the RtDC group with a rising peak towards the end of each session. It was interesting to note that participants in the hospital group were more likely to engage in an embodied manner alone and at different times during a session when compared to the relative conformity of embodied behaviour at certain times in the community group sessions.

Figure 20. RtDH group (n=5): individual levels of embodiment (EM) over an average of seven weeks

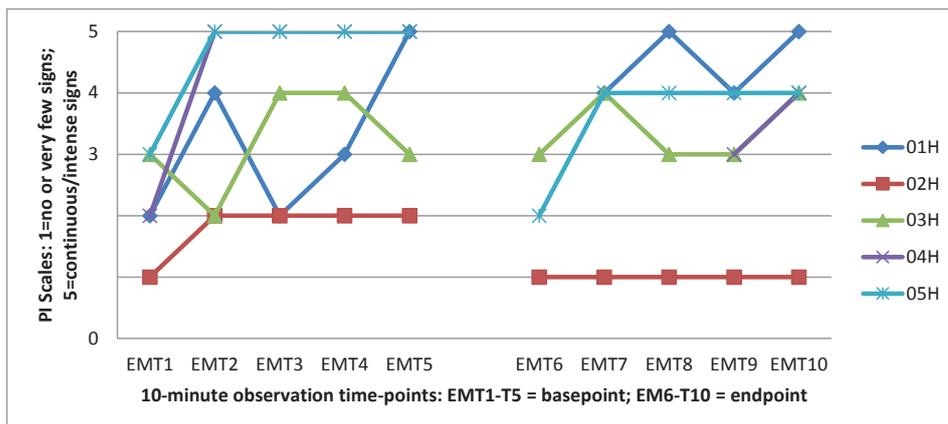


Figure 20 illustrates an absence of constant patterning among individual participants, other than for dancer 05H, whose scores rose two places from 3 to 5 between T1 and T2 and two places from 2 to 3 between T6 and T7. Levels for dancer 03H varied considerably across the observation timepoints and scores for dancer 01H zig-zagged between 2 and 5 at basepoint and between 4 and 5 and endpoint. Dancer 02H showed very little manifestation of embodiment throughout the observation timepoints but qualitative commentary revealed moments of embodied expression:

[Dancer 02H] present but not fully engaging with movement. Sometimes tapping to music, closed eyes and clapping hands to the songs and Ukulele.
 (Researcher 02, basepoint notes)

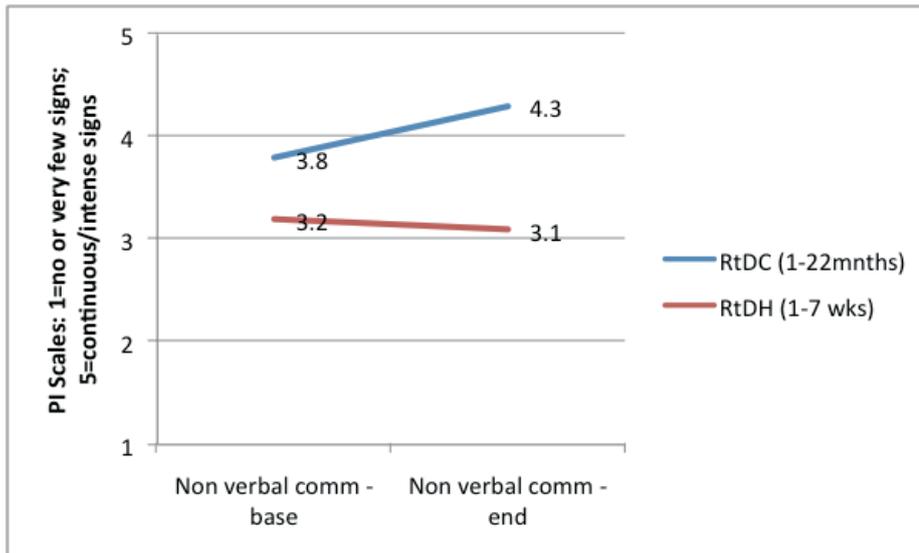
Dancer 01H expressed some of the most profound expressions of embodiment in which she was thoroughly engrossed in an activity, appearing to be caught in-the-moment and Dancer 04H frequently danced for prolonged periods in an entranced manner to certain genres of music, such as Eastern European gypsy music.

Relationships and social competence

A view of relationships and social competences was assessed in terms of verbal and non-verbal communication (NVC). NVC was measured by the levels of body/facial gestures and eye contact and verbal communication by number of verbalised interactions and levels of coherence.

Non-verbal communication

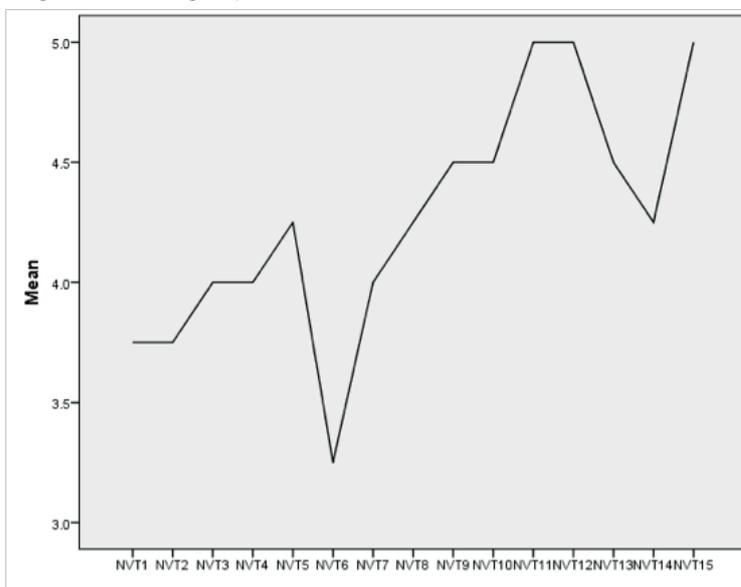
Figure 21. RtDC (n=110 and RtDH (N=5) groups: Mean overall scores base to endpoint for non-verbal communication (NVC)



Key: 1 = very little or no apparent signs; 2 = some signs but frequent disconnections; 3 = signs for around half the activity; 4 = consistent signs with very few disconnections; 5 = continuous and intense signs

Figure 21 shows that the mean scores for NVC from base to the endpoint rose from 3.8 to 4.3 in the RtDC group and remained very similar at 3.2 to 3.1 in the RtDH group.

Figure 22. RtDC group (n=11): mean levels NVC over 22 months



NVT1 – NV15 = 10-minute observation time-points: T1-T5 = basepoint; T6-T10 = midpoint; T11-T15 = endpoint

Figure 22 shows a gradually rising level of NVC over the evaluation period to include a peak before the start of the endpoint session (T11-12), and a slight dip near the end (T14).

The large circle of chairs in the dance space meant that apart from immediate neighbours, participants could only communicate non-verbally with others, if they wished to. Film footage illustrated this point:

When someone sits next to [dancer 11C], she looks at them. She is laughing, smiling and looking around from the beginning.
 (Hospital Registrar, film footage, basepoint)

[Dancer 14C] sits at the beginning with his arms crossed, not looking around. Does not look around to make conversation with others. He does not smile, does not wave when others say goodbye
 (Hospital Registrar, film footage, mid-point)

Whilst dancer 14C rarely engaged in NVC, there did appear to be a consistent bonding among others in the group. This was expressed clearly by participants acknowledging one another, holding hands, smiling, mutual laughing, and by gestural encouragement, clapping, nodding and eye contact when waiting for a neighbour to take his/her turn. Film footage showed that these incidents escalated over the period of evaluation.

Figure 23. RtDH group (n=5): mean scores for NVC over an average of seven weeks

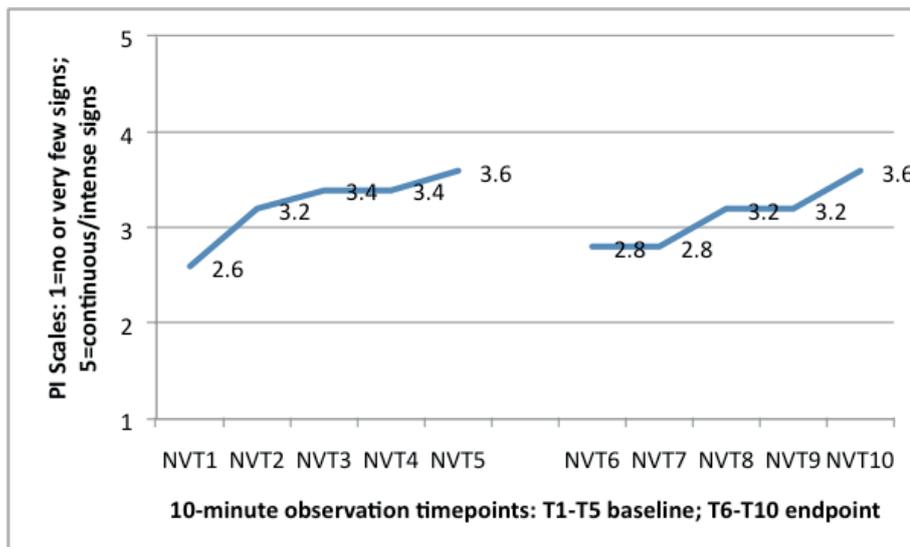


Figure 23 shows the similar pattern of a gentle rise of NVC from start to finish in each of the observed sessions. This does not appear to reflect the design of the sessions, in which interactive activities were frequently presented from the outset, but it may indicate levels of confidence and ease to interact non-verbally, or increasing levels of interest in fellow participants, as the sessions proceed.

Figure 24. RtDH group (n=5): individual levels of non-verbal communication (NVC) over an average of seven weeks

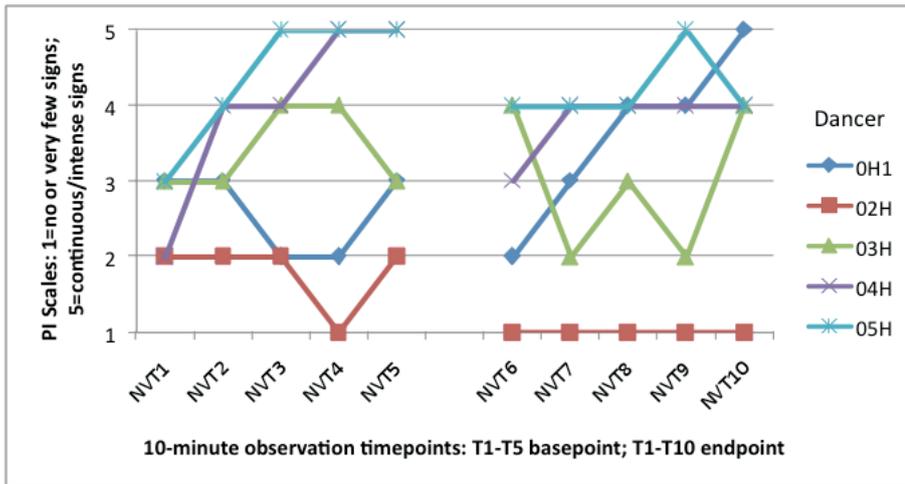
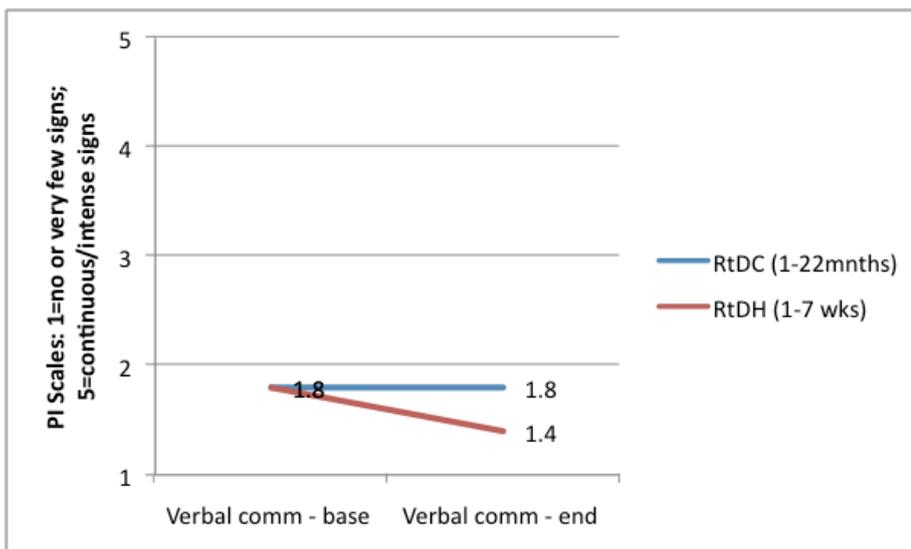


Figure 24 shows the varied individual patterns of NVC for each participant. Dancer 01H showed levels of 3 to 5 apart from at the beginning of the endpoint session (T6), when she sat on the periphery of the activities before joining the circle later. Dancer 02H showed little sign of NVC throughout. Dancer 03H's levels remained between 3 and 4 at basepoint and zig-zagged between 2 and 4 at endpoint. Scores for dancer 04H rose from 2 to 5 during the basepoint session and from 3 to 4 at endpoint. Dancer 05H showed the greatest range from a score of 5 at T3 to T5 to a score of 1 at T7.

It should be noted that before the two sessions began signs of distressing NVC was observed in two of the sample group which manifested as persistently pacing of the length of a long corridor or by crying. These manifestations abated once participants joined the dance movement activities. This occurred in dancer 05H, whose recovery from high levels of distress was markedly rapid once engaged in the dance activities.

Verbal communication

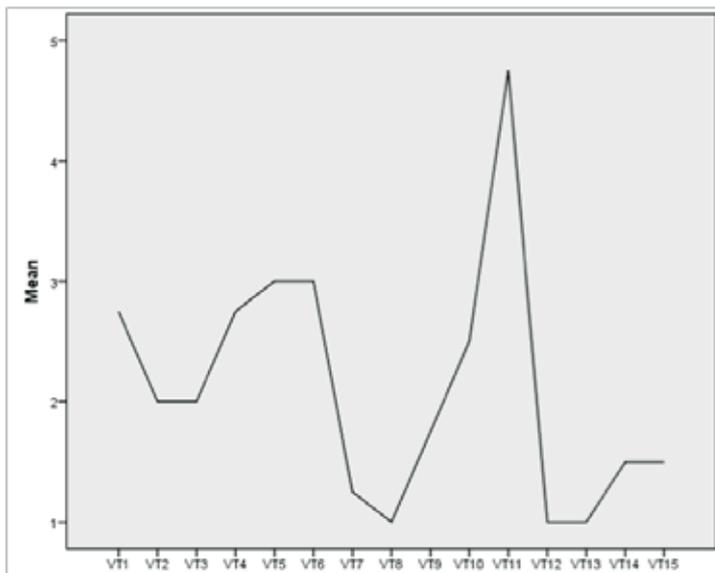
Figure 25. RtDC (n=11) and RtDH (n=5) groups: Mean overall scores base to endpoint for verbal communication



Key: 1 = very little or no apparent signs; 2 = some signs but frequent disconnections; 3 = signs for around half the activity; 4 = consistent signs with very few disconnections; 5 = continuous and intense signs

As the RtD programme was based on dance movement, the level of verbal communication was not expected to be high, as illustrated in Figure 25.

Figure 26. RtDC group (n=11): mean levels of verbal (V) communication over 22 months



VT1 – V15 = 10-minute observation time-points; T1-T5 = basepoint; T6-T10 = midpoint; T11-T15 = endpoint

Figure 26 shows unsurprising peaks of verbal communication in the RtDC group at pre-session time points, the highest being at T11 before the start of endpoint session. This may indicate increasing social confidence over the evaluation period, as illustrated by participants' comments:

'I enjoy people talking, laughing, asking questions' (Family carer 2C, focus group, mid-point).

'Gets you meeting with people and being sociable' (Dancer 03C, focus group, mid-point).

'I made friends in here' (Dancer 04C, focus group, endpoint).

The contours of the graph also reflect the activity content of the sessions, some of which invited verbal communication, such as singing and name-sharing, and verbal interaction relating to group choreography.

Figure 27. RtDH group (n=5): mean levels of verbal communication over an average of seven weeks

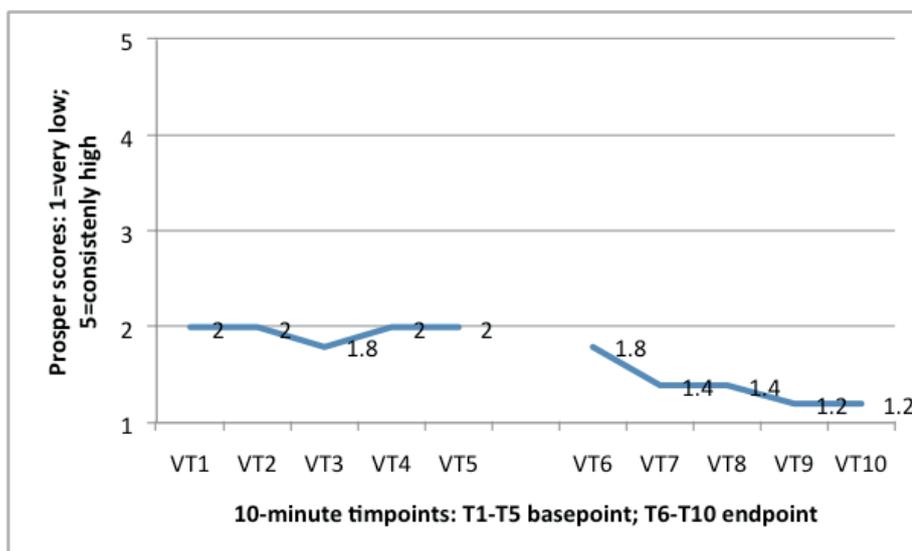


Figure 27 indicates that verbal communication in the RtDH group was limited throughout and there were no specific peaks during sessions.

Notes from the dance practitioners confirmed that verbal communication in the both groups was generally low during the dance activities but participants in the hospital group were more likely to verbalise at various points in the sessions.

Figure 28. RtDH group (n=5): individual levels of verbal (V) communication over an average of seven weeks

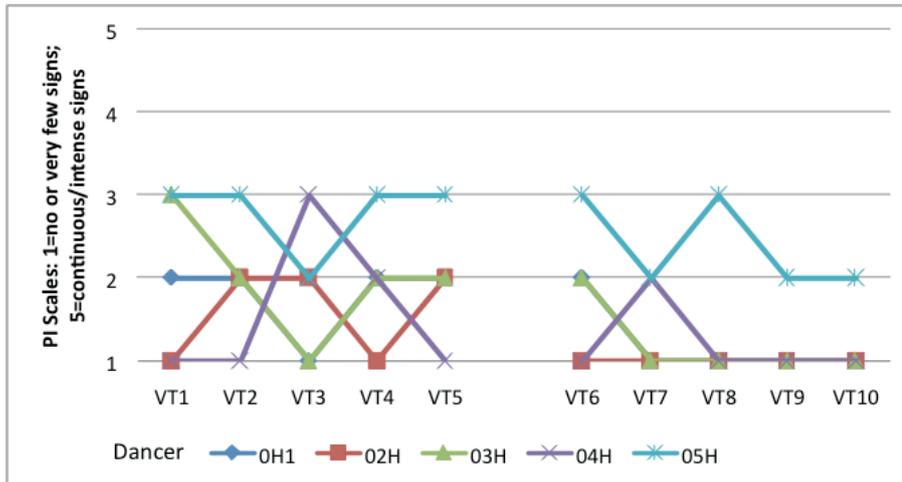


Figure 28 shows that two of the five participants interacted verbally whenever they were inspired to do so. Dancer 05H tended to chatter often with short comments throughout, for example:

[Dancer 05H] laughs when the ball goes missing under a chair she says 'Have you got it?' She leans forward when the ball comes towards her and watches it when it comes between her and another lady, she says 'That's all right' and taps her on the leg.
(Hospital Registrar film footage, midpoint)

Dancer 03H talked at the session preparation time-points (T1 and T6) and dancer 04H showed a surge of verbal interaction around half way into the basepoint session but otherwise spoke very little.

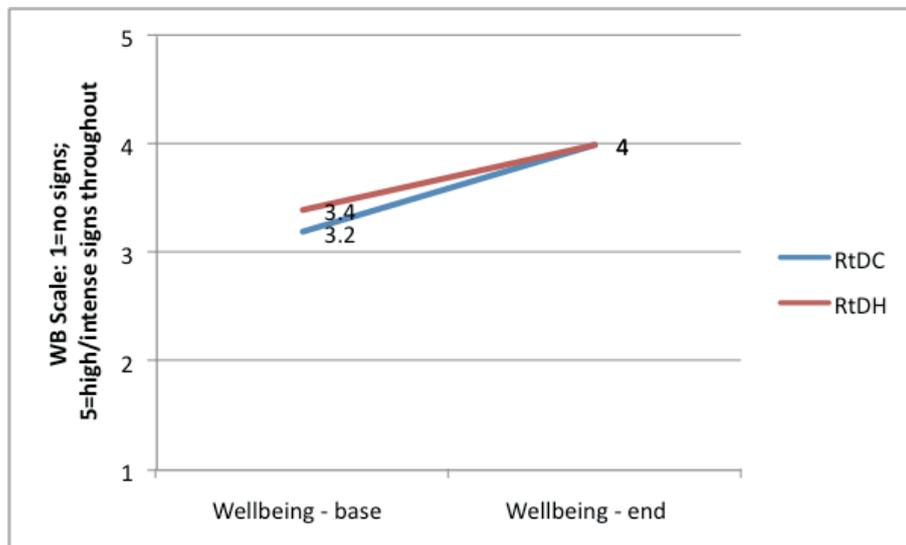
It should be noted that dancer 05H demonstrated distressed and confused verbal communication, asking for help to find 'mother' and the 'way home' but during the dance sessions, her verbal interaction was always positive and relevant to the activities. The relevance of verbal interactions from other dancers was also observed, where most of the time the essence of a sentence was made very clear, for example:

'The way to it is just music. Dancing and jigging. I remember that. We all did it'.
(Dancer 05H, midpoint)

Wellbeing

Wellbeing was assessed by levels of observed liveliness, self-confidence, enjoyment, tension, listlessness and aggression/disruption.

Figure 29. RtDC (n=11) and RtDH (n=5) groups: wellbeing scores from base to endpoint



Key: 1 = very little or no apparent signs; 2 = some signs but frequent disconnections; 3 = signs for around half the activity; 4 = consistent signs with very few disconnections; 5 = continuous and intense signs

Figure 29 shows that the mean scores for wellbeing as measured on the Prosper Wellbeing Scale were very similar in both the community and the hospital group, at 3.2 and 3.4 respectively at basepoint rising to 4 at endpoint. This equated to a 0.8 point rise in the RtDC group 3.2 at basepoint, to 3.5 at midpoint and 4.0 at endpoint.

Figure 30. RtDC group (n=11) Wellbeing base, mid and endpoints over 22 months

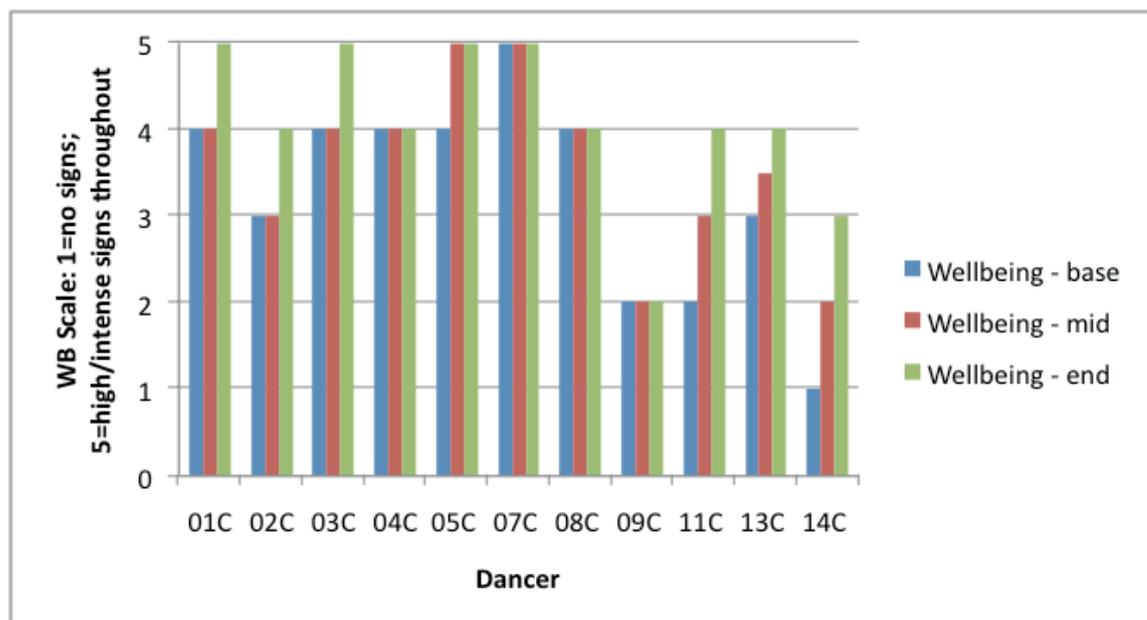


Figure 30 shows that scores either rose from base to endpoint (dancer 01C, 02C, 03C, 05C, 11C, 13C and 14C), or remained static (dancer 04C, 07C, 08C, 09C). For dancer 14C this corresponded to scores in QOL domains and manifested as reduced tension and raised liveliness and confidence in attempting and maintaining movements.

High levels of apparent enjoyment and growing confidence were observed frequently across the group as a whole and confirmed by participants in focus group discussions:

'Coming along to something like this, it is a safety valve, you can relax and enjoy the class.'
(Dancer 04C, endpoint focus group)

'When I come here, I- I feel alright, better.' (Dancer 11C, endpoint focus group)

'Since I've been here, I have- I'm very happy to come here, all the time.'
(Dancer 05C, midpoint focus group)

'You never know what you are going to do. [I like] not knowing what is going to come next; the variety.'
(Family carer 01C, endpoint interview)

'We did a complicated activity and movement and it was good to be challenged.'
(Dancer 03C, endpoint focus group)

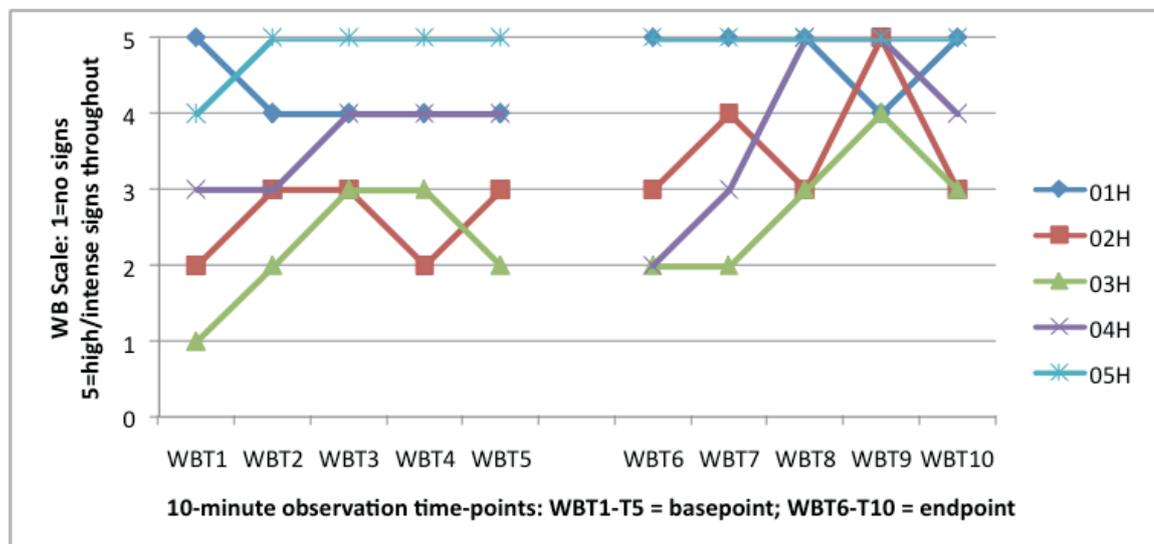
Comments from family carers also indicated a sense of hope associated with reciprocally positive experiences:

He [husband] doesn't like to go anywhere. In here there's equal opportunity and he likes that. I'm happy to come here, to do some exercise because at home I can't do nothing ... you know, I have to keep looking after [husband]

(Dancer 05C, endpoint focus group)

The mean score for wellbeing in the RtDH group rose 0.6 points from 3.4 at basepoint to 4 at endpoint (max 5).

Figure 31. RtDH group (n=5): individual scores for wellbeing over an average of seven weeks



Key: 1= No signs of wellbeing; 2= Signs of wellbeing for up to a quarter of the activity; 3= Signs of wellbeing for at least one half of the activity; 4= Signs of wellbeing for most of the activity; 5= Signs of wellbeing throughout

Figure 31 shows the progress of wellbeing for individual participants in the RtDH from base to end point. Whilst, with the exception of dancer 05H, ascending and descending undulations occurred during each of the two sessions, an upward trajectory was evident for every participant overall. Dancer 01H showed little change, moving between a rating of 4 and 5 consistently. Dancers 02H and 03H started with rating of 1 and 2 respectively, rising to 3 at endpoint but peaking at observation time-point WBT9 during a robust, inactive social dance to a sailor's hornpipe on the accordion.

Dancer 04H showed the most marked variation of wellbeing during the endpoint session, starting with a rating of 2 and rising to 5 at the start of hornpipe music.

Researcher 01 commented on different manifestations of wellbeing:

[Dancer 02H] seemed to enjoy sitting quietly and watching the activities, appearing very relaxed and contented but not necessarily joining in directly. Other times he rises to his feet and dances very merrily and joyfully, seeming to inspire everyone in the session.

(Researcher 01, basepoint notes)

Activity-specific incidents

Observations of activity-specific incidents, such as a rise in involvement and apparent wellbeing during a hornpipe dance, were numerous. High levels of spontaneous joy often appeared tied to the style of music being played by the musician, particularly in the hospital group. This was often engendered by world folk music with a strong rhythm, such as Klezmer and Latin American style music. An additional unintended benefit of the music element of the hospital sessions was the drawing-in of some patients who were in ear-shot but who elected not to dance. This manifested as toe-tapping, rhythmic waving/rocking and/or singing along.

In the more prescribed movements, such as warm-up and cool down activities, participants in both groups appeared increasingly engaged and/or confident over time. This extended to interest in fellow-participants' actions and in one-to-one interactions with the dance practitioners and interns.

Some activities always provoked maximum involvement and apparent wellbeing, such as those with small soft balls. However, one dance practitioner noticed a cultural difference, in which two men from a middle-eastern country, who had not had childhood experiences with balls, found the process of bouncing and catching difficult. The 'parachute', which drew the groups together to work as one organism, also elicited high levels of interaction, both directly with participants apparently engrossed in the shared activity, or indirectly, with participants watching intently.

Developing a sustainable model of dance programmes enabled by healthcare staff

The research question 'Is there potential for developing a sustainable model of dance programmes enabled by healthcare staff?' was addressed through interviews with eight people; two senior clinical managers; a clinical practice lead; and a nursing assistant from the hospital assessment unit; a nursing assistant and activities coordinator from a care home from which residents attended the community group activities; and two dance for dementia practitioners from GDCD.

Figure 32: Themes arising around training care staff to lead dance activities



Figure 32 shows the themes that arose: advocacy for dance as an activity for people with dementia; identified barriers and challenges to dance-centred training; integrating creative dance as a learning tool for creative practice in staff training; and models of training for staff-led dance activities.

Advocacy for RtD dance activities

All of the interviewed personnel believed that the RtD activities were beneficial to the participants. Perceptions of participants' enjoyment, physical exercise, mental stimulation, motivation, relaxation and social interactions were expressed by both staff and the dance practitioners. Illustrative comments from hospital staff at endpoint interviews included: 'Smiling! You can tell they enjoy it'; 'It makes people happy'; 'The patients really enjoy it', 'It gets them really moving', 'It's great physical exercise'.

The following illustrative comments are taken from transcriptions of the endpoint interviews. Comments relating to distraction and relief of boredom included:

'Some have pain but once the music starts you see them moving.'

(Clinical Nurse Manager)

'Singing and dancing is one of the most important things for patients with dementia [because] they don't do anything. It stops them wandering and relaxes them. Something interesting is happening.'

(Nursing Assistant)

Other comments referred to memory triggers, for example: 'The type of music played is nostalgic. It reconnects patients to the past'. Staff also noticed increased alertness leading to greater social interactions and improved mood:

'Residents are happier and more alert. They are willing to talk and smile more.'

(Activity Coordinator)

'There is a different atmosphere on Tuesdays after high tempo social dancing. It's pure entertainment.'

(Modern Matron)

Two interviewees referred to a change in inhibitions in people in the later stages of dementia, which may lead to less inhibited embodied responses to music, for example, 'Poor cognition results in greatest behaviour because its automatic', and:

'You see some patients completely taken into the music. They don't worry about what they look like because of their dementia, which is a good thing really.'

(Activity coordinator)

One commentator observed that dancing would have been a more common activity in the 1950s and 60s across the cultures represented in both RtD participant groups, and in some cultures dancing has remained a prominent feature of home life. The commentator observed that:

'Everyone gets involved generally. It's not ethnic-centric. The mix doesn't matter.'

(Clinical Nurse Manager)

This point also related to the music chosen to accompany the dance movement activities, the effect of which was thought among staff to be 'profound'/'intense'/'really important'. Particular styles and genres of music, for example, 'happy music' and 'South American music' were noticed by staff to particularly inspire engagement. Staff also concurred about the value of mixing genres during sessions.

Barriers and Challenges to dance-centred training for staff

Perceived barriers and challenges around training staff to facilitate dance movement activities were analysed into the following subthemes: personal relationships with dance in general; inhibitions and perceived skill ability; perceived salience of activity as a healthcare intervention; practical barriers.

Staff relationship with dance in personal life

Among the interviewed staff, mixed views of feelings and practices around dance in personal life were reported. All enjoyed dancing in certain contexts but half (n=3) did not tend to dance spontaneously. Of these, encouragement from a family member and/or intake of alcohol could release inhibitions providing the environment was perceived to be appropriate for dancing. One member of staff said:

'I probably need alcohol to dance in public but will mess about with the family, the kids, at home improvising.'

(Modern Matron)

The other members of staff engaged with dance regularly and more spontaneously, for example:

'I dance all the time. At home, here, even in the car! I'm always dancing when I hear music.'

(Clinical Practice Lead)

One interviewee referred to transferring her love of dancing at home to the work place:

'I like dancing at home at work with my patients. Makes me feel happy. I dance with my baby and little boy. It makes them quiet and look at Mum. It's communication. They say "What's my Mum doing?" It's the same in here [assessment unit] with my patients.'

(Nursing Assistant)

The level at which staff reported ease with dancing at work was also mixed. For example, Clinical Practice Lead (CPL) expressed high levels of ease:

CPL: 'I dance here [dementia-assessment unit] a lot because the patients really like it.'

Researcher: 'So you feel comfy moving to music here in the unit?'

CPL: 'Yes, all the time. I don't get embarrassed. If I'm doing the drugs and I dance they take their medication because it makes them feel good'.

Researcher: 'Why is that do you think?'

CPL: 'Because it's something that makes them happy to see the staff happy. It's something they can join in with.'

The notion of staff benefiting from engaging personally in dance activities facilitated by outside agencies in their place of work was met with different responses. References to direct benefit to staff were tenuous, rather in general they assigned any personal value to the consequences of patients/clients being occupied and/or their wellbeing uplifted, for example:

'Staff usually seem to enjoy taking part because they realize the good affect it has on the residents.'
(Activity coordinator)

Inhibitions and perceived skill ability

Issues of inhibitions and perceived skill ability appeared to influence staff willingness to take up training for staff to lead dance movement activities, for example:

'It wouldn't be comfortable for me to join in but I'd verbally encourage staff to join in. We have a large group of staff with no inhibitions – really comfortable to show off!'
(Modern Matron)

'I'd force myself because it was appropriate to encourage staff to get involved.'
(Clinical Nurse Manager)

'I'd definitely do it. I love dancing!'
(Nursing Assistant)

No member of staff reported high levels of dance ability but rather a willingness to engage in dance training appeared tied to lack of inhibitions. This was commonly referred to through language that might demean dance as a serious staff-led interaction, for example, 'I don't mind messing about on the ward'. This type of language was also referred to by a dance practitioner who noted that in education, 'People are OK culturally for little kids to "muck around".'

The dance practitioner also referred directly to inhibitions and lack of confidence among some staff:

'If we work with nurses, they have no confidence that they could do it themselves. Our training shows nurses that they can dance but they're not confidence to take it into their practice.'

(Dance practitioner 01)

Perceived salience

Each of the five healthcare interviewees believed that dance-centred training would be relevant in their work environment but each expressed caveats relating variably to the challenge of generalising value for all patients, its relatively low priority compared to mandatory training and its place as a healthcare intervention in general, for example:

'Integrating creativity [into healthcare training] would depend on individual patients. It's more a social intervention than care issue.'
(Clinical Nurse Manager)

The dance practitioners also commented on perceived salience of dance-centred training among staff, for example:

'Some [staff] don't have the desire to be involved in dance; don't see the value of it as a communication tool, following rhythm, improvising, expressing themselves, laughing. If a staff member didn't pick up on those values or the tiniest things that we see, it would defeat the purpose.'
(Dance practitioner 02)

Other comments centred on issues of culture, experience and personality, for example:

'We're all different. My nature is I love it. Right from school I take part in things like that. It's nature more than upbringing.'
(Nursing Assistant)

'There are cultural barriers. We're not comfortable with dance in this country. It's not central to our humanity.'

'They're [staff] bound to where they are personally but also the systems in which they work.'
Dance practitioner 01)

'If staff don't come from an artistic background that would be a barrier.'
(Dance practitioner 02)

The dance practitioners also commented on the poor dissemination of research evidence among healthcare staff, which they perceived inhibited openness to the widespread uptake of dance as a tool in the management of wellbeing in people with dementia. They referred to the different languages used by health professionals and artists that needs better definition in the context of dance and health and advocated a health economics component to research in this field in the future.

Practical issues

In addition to lack of clarity relating to the role of staff in facilitating dance activities, the staff and dance practitioners also reported a number of perceived practical challenges. These centred largely on workload, staff-patient/client ratio, timetabling and funding for training. The dynamic nature of the assessment unit, the fast rate of admission and discharge and managing the chronic and acute needs of patients, was seen as a particular contributor. In the residential care home, the unpredictability of residents' wellness at the time of a dance session, and the challenge of fitting in regular day-to-day care for high dependency residents was considered the main challenges.

The challenge of funding dance-centred training was unanimously considered a major barrier. Senior healthcare staff from the hospital unit explained that the release of funding for such training within their Health Trust would be managed at unit-level, and would therefore be dependent on individual managers' level of interest. Care home staff pointed to the activities budget needing to take into account the wide-ranging interest of all residents.

Creative dance as a tool for creative practice in staff training

Many of the comments from healthcare staff highlighted their perception that training would aim to improve the experiences of patients/residents, rather than upskilling staff more generally. However, one member of staff stated:

'It would be positive for thing, even for staff who have inhibitions. It could boost their confidence.'
(Modern Matron)

This focus on dance-centred training to support personal growth that in turn might lead to professional growth was discussed by the dance practitioners, for example:

[Facilitating dance movement activities] teaches about yourself. You become open and willing to allow tangents to happen. Being comfortable to work with tangents comes through experience, being put through different situations.'

(Dance Practitioner 02)

Dance practitioner 01 explained that relevant GCDC training courses usually include a mix of dance and healthcare professionals who must connect with their creative selves:

'Each has to regard themselves as dancers, to choreograph, to work from that viewpoint. It's quite a challenge to ask staff to regard themselves as creative human beings.'

(Dance Practitioner 01)

These comments highlight the need for continued discussion around staff education processes relating to accessing, developing and deploying creative mechanisms in their professional lives.

Discussion

Due to the small sample size (n=37) in this study and the lack of control for confounding factors such as acute health issues, energy levels (e.g. time of the day of sessions) and/or changes in life-style/medication at the time of data gathering, caution needs to be exercised in drawing any firm conclusions. However, the findings do provide a better understanding of QOL, functioning, involvement and wellbeing over the short-term in the RtDH group and longer-term in the RtDC group.

RtD and dementia-related policy and care practices

The findings of this study strongly indicate that both the Remember to Dance in the Community (RtDC) and the Remember to Dance in the Hospital (RtDH) programmes run by Green Candle Dance Company (GCDC) can contribute to supporting a good quality of life (QOL) and mental wellbeing for older people at risk of ill -health, including family carers, and people in different stages of dementia.

The programmes have the potential to help to address the following quality statements set out by the National Institute for Health and Care Excellence (NICE) for people with dementia:

- QS2. Choice and control in decisions
- QS4. Leisure activities of interest and choice
- QS5. Maintaining and developing relationships
- QS6. Physical and mental health and wellbeing
- QS10. Involvement and contribution to the community¹⁴

The mission set out by GDC of providing meaningful, person-centred activities to support QOL and physical, mental and social wellbeing reflects both policy agendas for the management of dementia in the future and contemporary models of care for people with dementia. The RtD programmes appears to sit well within the category of social and creative activities recently identified by NICE as potentially reducing, delaying and/or avoiding the use of health and social care services²². When activated within care homes and acute settings, the RtD programme is likely to support the immediate wellbeing of residents/patients and may contribute to the maintenance of improved wellbeing in the medium-term.

Relating to both policy and practice, the findings concur with the existing evidence that providing people with dementia opportunities for non-pharmacological activities, in particular, physical exercise³³, multi-sensory stimulation³⁴ and social management³⁵ can maintain or even improve mental and social functioning and reduce distressing behaviours³².

Dance, health and wellbeing

The work of GDC has been previously show-cased in Arts Council England's report on arts and older people³⁶. Factors identified in the report and other literature as nurturing activity-engendered wellbeing, including the cultural and physical environments and social and formal networks³¹, are taken into account in the design of the RtD programmes and this maximises opportunities for on-going, meaningful experiences and self-actualisation – in spite of a diagnosis dementia or long-term family care-giving.

The findings of this study coincide with on-going dialogue in the dance and psychotherapy communities around the definitions and benefits of the different dance movement concepts of dance therapy, dance movement therapy, therapeutic dance, social dance and dance-based exercise. The findings show that the RtD programmes offer multi-dimensional outcomes that are recognised as cross-conceptual. This includes, for example the aim of dance therapy to generate positive emotions⁵⁷, social dance and dance-based exercise in supporting wellbeing, verbal skills and social interaction⁶⁷, and psychomotor skills respectively.

Quality of life and functioning

The findings reflect those found in previous studies which show dance generally supporting QOL^{16 17 18 19}, and more specifically those that indicate a link between dementia-focused dance activities and positive QOL, wellbeing and mood^{41 42 43}.

And Over 22 months in the community group, a self-reported rise was seen in the QOLAD domains, 'mood', 'ability to have fun', 'self as a whole', 'family', 'marriage' and 'friends'. However, this was not necessarily perceived to be reality by the relevant family carers. This discrepancy indicates mood-led responses by the former; a feeling that life is good regardless of carer-observed reductions in actual QOL. The QOLAD questionnaires were deliberately completed in the dance space either just after a RtD session, in which case a positive response might be expected, or just before. In the latter, positive responses to the questions may be explained by participants being in the benevolent atmosphere and familiar environment of the dance space, and with expectations of the positive experience to come. In this case, more research is needed to ascertain any link between: i) a sense of improved QOL and behaviour and carer-burden; and ii) a sense of improved QOL and the environment/time at which questionnaires are completed.

The consistent rise from base to endpoint in the mean cognitive assessment scores of 50.5 to 55.3 (max = 100) across the six participants who completed the relevant ACEll assessments, might suggest a link between regular engagement in the RtD programme and maintained cognitive functioning for some individuals. Qualitative data confirmed this potential link

with participants self-reporting and observers noting improved abilities in, for example, pace of assimilating instructions, actioning sequenced movements and in visuospatial awareness. These findings concur with previous studies that highlight an association between dance and maintained cognitive function⁵², and more specifically, skill-learning⁶², in-the-moment-concentration, information processing, memory recall and new learning^{46 47 48}. Previous evidence dance and improved motor skills⁶³ was also apparent in the current study in relation to increased stamina, flexibility and co-ordination.

Motivation, creative and emotional expression

A marginal fall in mean levels of commitment from base to endpoint in the RtDH group indicates inconsistent adherence to an activity, alertness and concentration among the participants. However, qualitative data refuted this in some cases with at least three-fifths of the group demonstrating, e.g. 'sustained dedication', 'being fully engaged' throughout. In both groups, rising mean levels of commitment from the start to the end of each session corresponded. However, unlike the RtDH group the RtDC group showed higher levels at the start of each successive session compared with the last over the evaluation period. This finding reflects previous evidence on the role of dance activities for people in the early to mid-stages of dementia, which shows that motivation can be developed⁵⁶.

Similar patterns of creative expression and embodiment were seen across both groups, with a rise towards the end of the observed sessions. However, patterns for individual participants varied. This related largely to the point in the session in which participants demonstrated creativity or embodied behaviour. In the RtDH group this appeared more haphazard and unlinked to specific activities, for example one participant became intensely embodied at the beginning of a session, dancing in the centre of the circle whilst others engaged seated in the warm-up activities. The sense of experiences-of-immediacy was evident wherein short periods of time appeared to relate very little, if at all, to the past and the future. This differed from the RtDC participants who were more likely to express embodied creativity during the same activities. High points appeared tied to the type of activity, which the practitioners scheduled at a point in the session where participants were most likely to feel physically warmed-up, relaxed and safe enough to input their own improvised actions. The experiences of people in the later stages of the dementia may engender greater levels of embodiment and creative experimentation. Notwithstanding the challenge of overcoming a natural reticence associated with feeling judged and issues of self-confidence, participants in the earlier stages may feel better at ease to explore these elements collectively and when intensely supported by the practitioners to do so.

The apparent joy of immersion in embodied experiences, being at one with the music, a fellow dancer or dance practitioner, demonstrates Csikszentmihalyi 's concept of 'flow'⁸⁰, which relates centrally to creative expression and embodiment. Both are increasingly recognised in the literature as being crucial for people with dementia to express their unconscious self and to conduct authentic and meaningful communions with others⁴⁵. In this context, the outcomes of the RtD programme reflect the identified need for offering a platform for therapeutic support²², emotional functioning, self-management, a sense of belonging/inclusion, and hope^{49 50 51}.

In both groups, the dance practitioners skilfully managed the flexible pedagogical approach that underpins the RtD programmes to elicit these outcomes. These observations show the need for an evidence-based model that has the flexibility to adjust for variable outcomes.

Relationships and social competences

Levels of verbal interaction measured on the Prosper Involvement Scale were understandably lower than other the domains given the dance movement focus of the RtD programmes. In the RtDC group a clear peak in verbal communication was seen at the pre-movement time-point

in each of the sessions and this rose successively over the evaluation period. Qualitative data confirmed that the not-uncommon withdrawal from verbal communication over time was not evident in this group. Verbal interactions took place at appropriate times in the sessions, for example, in discussions on activities (e.g. group choreographing). This was also evident in the RtDH group, wherein most of the verbal communication clearly related to the activities and the relationships between participants.

In both groups the levels of non-verbal interaction, body/facial gestures and eye contact, rose from the start of each session to the end. This may indicate increasing confidence/ease to connect non-verbally, or increased levels of interest in the actions of fellow participants as the sessions proceeded. In both groups, participants were often physically affectionate to each other and the practitioners. These findings suggest increased empathy and bonding between the participants engendering increasingly strong social relationships and the maintenance of social competence. Overall, the levels of verbal and non-verbal communication reflected the existing evidence on dance supporting person-to-person attachment and social wellbeing^{23 50}. This was supported by the qualitative data, in which participants reported making friends and enjoying each other's company.

Wellbeing

The existing understanding that activities, when perceived by participants as meaningful³⁰, can lead to wellbeing was evident in this evaluation. The mean scores in both groups for wellbeing rose from base to end point and an atmosphere of enjoyment was apparent from the outset. Scores were elevated by an increase in liveliness, confidence and a reduction in any initial tensions in both group, and additionally in a reduction of distress in the RtDH group. In focus group discussion, people with dementia and family carers tended to express wellbeing by in terms of enjoyment, a sense of achievement, physical improvement and making friends. Family carers also referred to affirming positive relationship with their cared-for. This was very strong for two carers, one from each of the dance groups, who reported high levels of challenge in caring and relationship-management at other times.

Staff training to facilitate dance activities

The findings relating to care staff training concurred with the small body of relevant literature. Staff generally advocated dance as a positive intervention for people with dementia⁹⁴ and around half of the staff interviewed believed that training to use dance in their health/care setting would enhance their portfolio of practice tools and their patients'/clients experiences. No member of staff referred to their being intended recipients of the benefits of dance in their place of work. Perceived barriers to dance training for care staff included: busy care schedules; lack of perceived skill and/or confidence to dance; lack of personal interest; and 'art' facilitation not regarded a necessary tool for health professionals. These findings concur with the identified need for a greater emphasis on developing care staff confidence and skills to engage in creative therapies in order to rebalance the high use of expensive and drug therapies of dubious value⁹⁴.

Conclusions and recommendations

In supporting quality of life and wellbeing relating to physical, mental and social functioning, and in potentially diverting emotional distress, the Remember to Dance programmes appear to meet criteria for effective non-pharmacological interventions for people with dementia and their family carers. Greater analysis of the data collected in this study is needed alongside further longitudinal research with a far larger sample and a control group, and to include cost-benefit analysis. Whilst generalisability is not possible currently, this preliminary evaluation suggests strongly that the RtD model should be considered in social prescriptions for community-based services that are designed to support and improve the lives of people affected by dementia.

Overall recommendations:

- There appears to be a strong argument for commissioning a national-spread of dance programmes for people affected by various stages of dementia.
- Best practice is likely to be varied in line with the cultural experiences of the people involved and as such should be developed with an interdisciplinary team of healthcare, allied healthcare and dance-specialist practitioners and older people's and dementia-specialist services.
- With their depth and breadth of experience in this field, GCDC should be key partners in developing a national Remember to Dance strategy. This might be achieved in partnership with other dance and dementia specialist organisations (see www.danceanddementia.co.uk; www.communitydance.org.uk; www.creativedementia.org) and individuals including Dr Richard Coaten.

Programme related recommendations:

- The current design of the RtD programme, its pace and diversity of activities, dynamic leadership and the level of post-session analysis should be retained. Development of dance in this field has benefited from a collaborative body of professionals including GCDC practitioners, dance psychotherapists and expressive dance therapists working together. This might be developed further by working more closely with allied health professionals including physiotherapists and occupational therapists.
- Appropriate participants of RtDC might be invited onto a steering group to represent service users in programme development.
- The levels of creativity-related activity might be intensified in both the community and hospital groups in the future to create platforms for un-self-conscious embodied, creative experiences.

Building the dance practitioner workforce:

- The mobilisation of a national programme would require an infrastructure of appropriately experienced/trained practitioners. It is recommended that work with the dementia-specialist dance community at a national and international level to spearhead a Remember to Dance network.

Care staff-related recommendations:

- Clarity around the role of care staff, both from continuing care homes and in acute settings remains blurred. Notwithstanding the challenge of accessing all care staff who may be present during activity sessions over time, it is recommended that all dance programmes are preceded by workshops and training for staff in which the rationale for the programme, expectations and specific roles are discussed fully.

Research-related recommendations:

- Whilst useful for capturing a picture of commitment, involvement, creativity and communication from an observer's perspective over time, the bespoke Prosper Involvement and Wellbeing Scales are not yet sufficiently refined, specifically relating to communication and to design in general. It is recommended that the SDH works collaboratively with other key researchers and the dance community to address the shortcomings and to develop further tools for this context.
- Further studies are recommended to compare the impact of other dance activities, and, notwithstanding the challenge of access and compliance, with larger samples, and multiple cohorts over a longer period of time (e.g. five years).

The dance research and practice community is looking forward to the findings of Cochrane Review on Dance Movement Therapy for Dementia led by Vicky Karkou and Bonnie Meekums, under the editorial guidance of the Cochrane Dementia and Cognitive Improvement Group, which is in progress at the current time¹⁰⁷.

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Appendices

Appendix 1: Remember to Dance Session 3: 10 October 2013

Dance Artist	Musician	Session Assistant
Time	Activity	Music/songs
10:30-10:40am	Intro's	Sticky labels
10:40-11:10am	<p>Hello game – with large ball passed around circle and when the person receives the ball they tell their name, then passing around the circle.</p> <p>Develop into kicking ball with legs</p> <p>Hello song – without each participant's name</p> <p>Warm-up</p> <p>Coordination exercises and challenging the mind through cross-over patterning using the arms, hands and fingers.</p> <p>Stretches</p> <p>Prop work: Squishy bouncy balls – walking up and down arms and across chest, turning around in finger tips. Pressing with finger tips, pressing with palms of hands, passing from one hand to another, throwing up in air and clapping hands in-between before catching – increasing the amount of claps. Catching with one hand. Bouncing on the floor and catching with both hands and then one handed. – All this is rhythm to the drum!!</p> <p>Breathing exercises</p>	<p>'Match of the Day'</p> <p>'Here we are <u>today</u>' (instead of <u>again</u>) Happy as can be all good pals and jolly good company! <i>Repeat</i> '</p> <p>Mix of different fast tempo rhythm songs (Dixie style)</p> <p>'Rock around the Clock' 'Coconut Woman' 'Dis Long Time Girl' 'When your smiling'</p> <p>Calm atmospheric 4/4 selection</p> <p>Calm atmospheric 3/4 selection</p> <p>Drum – changing pace accordingly and going with the group.</p> <p>Flute</p>
11:10-11:20am	Water Break!	
11:20-11:50am	Choreography Umbrella Dance	'Isn't it a lovely day' 'Singing in the rain'
11:50-11:55am	Cool Down Deep Breathing Twisting in the waist and turning to the side slowly	Flute
11:55am-12pm	Goodbyes	Jamaica Farewell

Any other comments? Any requests? Anything observed in an individual? Incidents? Reflection – What worked today? What didn't? What can be developed another time? The squishy balls were a huge success. [musician] used different rhythmic patterns and [dance practitioner] designed ways of being creative with the ball in time to the music such as bouncing on the floor and catching with both hands, one handed and then adding a clap in-between – all aiming to be in time with the music. The group got lost in the motion of throwing and catching and at times the atmosphere in the room was almost hypnotic. The group were so engrossed and motivated with the squishy ball activity that we went right through the water break because nobody was showing any signs of fatigue they all also did manage to be in time with the music but just not all together at once. [dancer07C] appeared much more alert and in control of himself today, he went alone to the toilet, we followed him but he knew where he was going and came back afterwards without hesitation.

He struggles with sitting up and is often slumped over, we are not sure if he is unable to sit up due to his medical health conditions or if he chooses not to sit up but from observations we have come to the conclusion he is unable to sit up and therefore as a result he is unable to perform some stretches and some of the cool down movements. [dancer07C] was given the rain stick and chose to play it a little bit. We give [dancer07C] alternative cool down movements but it is hard for him to concentrate and focus, however he does love music and quite often gets lost in swaying and singing to the music regardless of what the activity is. [musician] gave [dancer07C] a rain stick percussion instrument to join in with the music and he did play it but seemed confused to what it was....we will try and see if we can make it a regular part of the session with [dancer07C] accompanying the music if he wishes.

Appendix 2: Enabling Life-Long Learning in Older Age: Involvement Scale (based on the Leuven Well-Being Scale, Ferre Laevers 1994)

Participant's code:							
Date:							
Activity and setting code:							
Level	Description (see p. 2 for details)	Observation time-units in minutes					
		Minus 10-5	5-15	20-25	30-40	50-60	Other
1. Commitment	1. No or very low apparent commitment						
	2. Some but very frequently interrupted						
	3. Apparent for between one third and one half of the activity. Varied intensity						
	4. High levels most of the time with some intense peaks						
	5. Continuous and highly intense throughout						
2. Creative Expression	1. No or very low levels						
	2. Low but more than level 1						
	3. Moderate for between one third and half the activity. Some peaks.						
	4. High most of the time but with some fluctuations in intensity						
	5. Continuous and highly intense throughout						
3. Embodiment/ connectivity	1. No or very low apparent commitment						
	2. Fleeting and/or tentative						
	3. Moderate for between one third and half the activity but with disconnected periods						
	4. Consistent mostly throughout with some intense peaks.						
	5. Consistent throughout; no apparent signs of disconnection at any time						
4. Verbal Communication	1. None or very little verbal interaction (positive or negative)						
	2. More than in level 1 but very little or no apparent analytic processing						
	3. Moderate levels of simple to intermediate analytic processing						
	4. High levels of frequent, intermediate to sophisticated analytic processing						
	5. High levels of frequent, sophisticated analytic processing						
5. Non-Verbal Communication	1. Very little or no communicative gestures						
	2. Fleeting and infrequent moments						
	3. A moderate number of sustained moments						
	4. Frequent and sustained periods largely consistent throughout						
	5. Consistent and intense throughout						

Scale Point Value Ratings

Commitment (motivation; alertness; concentration)

1. Very little or no apparent motivation to prescribed activities. Very little or no concentration or alertness.
2. Some level of motivation but frequent disconnections and interruptions in flow. Concentration fleeting and interrupted. Alert for less than one third of the session.
3. Motivation apparent most of the time with some lapses of flow. Alert and concentrating for at least half of the session but varied in intensity
4. Consistent signs of motivation and concentration, some highly energised. Alert and concentrating nearly all the time with some intense peaks.
5. Motivation, concentration and alertness continuous and highly intensive throughout.

Creative expression (e.g. 'Creative action': reacting creatively/adding something extra/being spontaneous/improvising to affect new ideas)

1. No apparent creative action or expression.
2. Fleeting moments of creative action but tentative, ambiguous
3. Creative action for moderately prolonged periods
4. Creative action for long periods with peaks of intensity but with occasional signs of disconnection
5. Creative action high and consistent with no obvious signs of disconnection at any time

Embodiment (e.g. apparently embodied/connected/captured within activity):

1. Disconnected; absent.
2. Fleeting moments of connectivity/embodiment but tentative, ambiguous
3. Appears connected/embodied for at least half of the activity but with signs of moderately prolonged disconnection
4. Appears connected/embodied for long periods with peaks of intensity but with occasional signs of disconnection
5. Appears highly and consistently connected/embodied, with no obvious signs of disconnection at any time

Verbal communication:

1. No or very little verbal positive or negative verbal communication
2. More than in level 1 but very little or no apparent analytic processing (this can include high levels of non-coherent verbalising).
3. Moderate levels with simple to intermediate analytic processing
4. High levels with frequent intermediate to sophisticated analytic processing
5. High levels with frequent sophisticated analytic processing.

Non-verbal communication (eye/facial/body communicative gestures)

1. Very little or no communicative gestures
2. Fleeting and infrequent moments
3. A moderate number of sustained moments
4. Frequent and sustained periods largely consistent throughout
5. Intense and consistent throughout.

Appendix 3: Enabling Life-Long Learning in Older Age: Wellbeing Scale (based on the Leuven Well-Being Scale, Ferre Laevers 1994)

Participant's code:							
Date:							
Activity and setting code:							
Level	Description (see p. 2 for details)	Observation time-units in minutes					
		Minus 10-5	5-15	20-25	30-40	50-60	Other
1. Very Low No signs of well being shown by five or more of the following:	Not lively – passive No apparent self confidence Overwhelmed No apparent enjoyment Un-commutative Tense Listless all of the time Destructive/aggressive behaviour No satisfactory engagement with physical environment No satisfactory engagement with social environment						
2. Low Few signs of well being for up to a quarter of the activity shown by five or more of the following:	Lively for very short periods A little self confidence apparent for short periods Overwhelmed for long periods Some slight level of apparent enjoyment A little commutative for short periods Largely tense but with some short periods of relaxation Listless for long periods Destructive/aggressive some times Nominal engagement with physical environment Nominal engagement with social environment						
3. Moderate Signs of well being for at least one half of the activity shown by five or more of the following:	Lively for moderate periods Self confidence apparent for moderate periods Overwhelmed for short periods Apparent enjoyment for at least half of the activity Commutative for moderate periods Tense at times with longer periods of relaxation Listless for short periods Rarely destructive/aggressive Engaged with physical environment for more than half the activity Engaged with social environment for more than half the activity						
4. High Signs of well being for most of the activity shown by five or more of the following:	1. None or very little verbal interaction (positive or negative) 2. More than in level 1 but very little or no apparent analytic processing 3. Moderate levels of simple to intermediate analytic processing 4. High levels of frequent, intermediate to sophisticated analytic processing 5. High levels of frequent, sophisticated analytic processing						
5. Extremely High Signs of well being throughout the activity shown by five or more of the following:	Lively all of the time Self confidence apparent throughout No signs of being overwhelmed Apparent enjoyment throughout Commutative throughout Always relaxed No signs of listlessness Not destructive/aggressive Engaged with physical environment throughout Engaged with social environment throughout						

Wellbeing measure: Satisfaction

Satisfaction rating relating to the session

(Perceived satisfaction is gauged by a participant's apparent levels of openness and agreeableness* overall)

1. Satisfaction: No apparent satisfaction relating to the session
2. Satisfaction: Some fleeting signs of satisfaction
3. Satisfaction: Obvious signs of satisfaction for at least half the session
4. Satisfaction: Obvious signs of satisfaction for most of the session, with moments of intense satisfaction.
5. Satisfaction: Obvious signs of consistent and intense satisfaction

Please circle appropriate rating for this session

1	2	3	4	5
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*The concepts of openness and agreeableness relate to the model of satisfaction put forward by: Bailey, T., Eng, W., Frisch, M., & Snyder, C. R. (2007), "Hope and optimism as related to life satisfaction." *Journal of Positive Psychology*, 2(3), 168-69

Appendix 4: Interview and focus group question frameworks

Guide for interview with people with dementia/carers – Version 1 22 May 2013

1. Can you tell me about the type of dancing that was around when you were young?
2. Did you dance when you were young and if so, what type of dancing was it?
3. Have you ever done this type of dancing and movement before (Green Candle programme)?
4. What do you think about this type of dancing and movement for people with memory problems in general?
5. What do you especially like about the sessions? How did that make you feel?
6. What about the sessions did you not like? How did that make you feel?
7. Do you think taking part in these activities makes you feel any different from usual? If so, how?
8. Do you think taking part in the sessions makes you feel any different when you're not here, at home for example?
9. Would you like to say any more about the dance sessions?

Guide for focus group discussion with carers – Version 1 22 May 2013

1. Can you tell me about the type of dancing that was around when you were young?
2. Did you dance when you were young and if so, what type of dancing was it?
3. Have you ever taken part in this type of dancing and movement before?
4. What do you not like is it about the sessions and how does that make you feel?
5. What do you not like about the sessions and how that make you feel?
6. When carers and the people they care for come to the sessions together, do you think it can make a difference to the relationship between them and have you noticed any differences personally?
7. Do you think these sessions can have an effect in any way on the amount of work the carer has to do to look after the person they care for?
8. Would you like to say any more about the dance sessions?

Guide for focus group discussions with care staff and dance practitioners – Version 1 22 May 2013

1. Can you tell me if you dance at all in your personal life and if so what effect does it have on you?
2. Can you tell me what you think about the GC activities taking place in hospitals in general?
3. Do you think these sessions have positive benefits on the patients who take part and if so, what?
4. Do you think these sessions pose any challenges for patients who take part and if so, what?
5. What role did/do you personally take in the sessions and how did you feel about it? (e.g. facilitator; getting patients ready; observing/sitting with patients; dancing with patients; dancing yourself etc).
6. Can you tell me your thoughts on staff taking a role in leading activities like this? (What might be easy/difficult to lead and why?)
7. Can you tell me your thoughts on the idea of staff receiving training from the dance practitioners to lead activities like this?
8. Do you think taking part in the sessions makes you feel any different when you're not here, at home for example?
9. Would you like to say any more about the dance sessions?

Appendix 5: Observation template

GREEN CANDLE REMEMBER TO DANCE: FILM FOOTAGE VIEWING AND FIRST STAGE ANALYSIS GUIDANCE

Thank you for taking on the role of film-analyst for this project.

Stage 1. Viewing and note-taking

Each viewer is invited to view their allocated film/film section in its entirety, making open notes (anything deemed noteworthy) about allocated subjects. Your intuition and personal and professional experiences will underpin your unique viewpoint.

We would appreciate a typed word document of your raw notes, in no particular order, with the initials only of the subject to which they refer.

Stage 2. Beginning the thematic analysis

From the outset, this analytic process is based on the reflexive viewpoints of the viewer (taking as a given, bias derived from the observer's inherent values and thought processes).

The main research question asks, 'What if any QOL domains might be supported by the dance intervention?' We have used an internationally established QOL model, devising a matrix of domains and their subdivisions (below).

If you have time, we would appreciate your cutting your raw notes into sections and pasting them onto which ever domain you feel is appropriate on the matrix below. The same observation may apply to more than one domain. There is an 'other' section for observations that appear not to fit into the listed domains

GREEN CANDLE REMEMBER TO DANCE 1st-Stage Thematic Analysis Matrix		
Independence	Personal development	
	Achievement	
	Self-determination	
	Personal values	
Social participation	Interpersonal relationships	
	Interactions	
	Social inclusion	
	Participation	
	Social support	
	Respect, dignity	
Wellbeing	Contentment/satisfaction	
	Confidence	
	Expressions of stress/ lack of stress	
	Enjoyment	
	Self-concept/identity	
	Physical functioning	
	Mobility	
Involvement	Commitment	
	Creative expression	
	Embodiment	
	Verbal communication	
	Non-verbal communication	
Other		



All photographs by kind permission of Green candle Dance Company and the RtD participants

'Some participants would come to life even more with the props towards the end of the session. They would often engage here more with the facilitators and other participants and by themselves'

(Researcher observation)

'Gets you meeting with people and being sociable'
(Remember to Dance in the Community dancer)

'I made friends in here'
(Remember to Dance in the Community dancer)

'Coming along to something like this, it is a safety valve, you can relax and enjoy the class.'

(Family carer)

'I enjoy people talking, laughing, asking questions'
(Family carer)

'You never know what you are going to do. [I like] not knowing what is going to come next; the variety.'

(Family carer).

'The way to it is just music. Dancing and jigging. I remember that. We all did it.'
(Remember to Dance in Hospital dancer)

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