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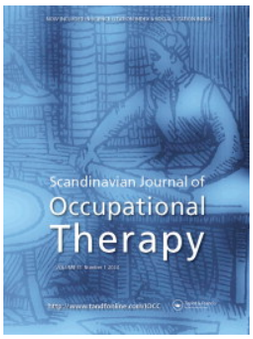

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RESEARCH ARTICLE

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Dance for Parkinson, multifaceted experiences of persons living with Parkinson's Disease

Ingrid Andreasson[a,b], Ann Björkdahl[a,c], Sofi Fristedt[d,e], Paula Bergman[f], Katarzyna Filipowicz[f], Ida-Klara Johansson[f] and Iolanda Santos Tavares Silva[a,c]

[a]Occupational Therapy and Physiotherapy, Sahlgrenska University Hospital, Gothenburg, Sweden; [b]Sahlgrenska Academy, Institute of Clinical Sciences, University of Gothenburg, Gothenburg, Sweden; [c]Sahlgrenska Academy, Institute of Neuroscience and Physiology, University of Gothenburg, Gothenburg, Sweden; [d]School of Health and Welfare, Jönköping Academy for Improvement of Health and Welfare, Jönköping University, Jönköping, Sweden; [e]Faculty of Medicine, Department of Health Sciences, Lund University, Lund, Sweden; [f]Public Health Department, Region Jönköping County, Jönköping, Sweden

ABSTRACT

Background: Dance classes for people with Parkinson's Disease (PD) are offered worldwide; however, further studies are needed to explore patients' experiences of how dance affects well-being.

Purpose: To explore how Dance for Parkinson (Dance for PD) is experienced, and how it contributes to the well-being and health of participants in Sweden.

Methods: This qualitative study collected data from four focus groups. Participants were asked how dance classes impacted their well-being, and their ability to perform activities of daily life. The focus groups were recorded and transcribed. Data were analysed using content analysis, meaning units were coded, and codes were coalesced into categories from which themes were abstracted.

Results: Dance for PD provided a multifaceted experience related to social relationships, aesthetic context, feelings of wellbeing and the physical experience of dancing. The main theme contained four sub-themes: Connectedness, Pleasure and glamour, Well-being in mind and body and Customized movements.

Conclusion: The present study highlights that health and well-being are improved by Dance for PD. It is an enjoyable activity that meets the specific needs of persons living with the consequences of PD and should therefore be promoted by occupational therapists.

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Customized movements; focus groups; pleasure; social interaction; well-being

Persons living with Parkinson's Disease (PD) may face limitations with respect to daily activities of self-care, productivity, and leisure, leading to reduced independence and restricted participation in meaningful daily occupations and social activities, which in turn affects their quality of life [1–7]. Participating in meaningful activities is important for health and well-being, and has a unique power over human health, particularly for persons living with chronic illness. Moreover, participating in activities that support and develop the person and their abilities (becoming), that are in line with and support their identity (being), and are performed together with others (belonging), is important for health and well-being [8,9].

Dance is a recreational, social, and cultural activity. Because of its aesthetic expression, in which every movement has a meaning, dance is more than just a physical activity; it creates connections between body movements, emotions and thoughts, thereby shaping inner images and contributing to development of identity and self-esteem [10,11]. Furthermore, dancing together with others enables social connection, prevents social isolation and creates a sense of well-being [12,13].

Recent years have witnessed an increasing interest in performing arts such as dance as a therapeutic medium for PD [14]. Research shows that dance can improve motor impairment, specifically balance, as well as the severity of motor symptoms in persons with mild to moderate PD [15], and that the combined effect of dance and music addresses both physical and emotional symptoms [14]. The World Health

CONTACT Ingrid Andreasson ingrid.f.andreasson@gu.se Ingrid.f.andreasson@vgregion.se Arbetsterapi Mölndals sjukhus, Göteborgsvägen 31, Mölndal 431 80, Sweden

Organisation (WHO) has published a review [16] that addresses the importance of the performing arts (including therapeutic dance, dance therapy and music therapy) in the prevention and management of illnesses such as PD [16]. Dance is also recommended as a rehabilitation modality in the European Physiotherapy guidelines for PD [17].

Dance classes for people with PD are offered in many different styles and arrangements, with the aim of improving movement, well-being and social engagement [15]. Studies examining the experience of PD patients taking dance programs have been undertaken [18,19]; however, further studies are needed to explore experiences of how the characteristics of dance correspond to the specific needs of a person living with PD, particularly with respect to physical, emotional, cognitive and social dimensions. Moreover, as dance is likely to mean different things to different people, studies from various contexts are warranted. The aim of the present study was to explore how Dance for PD is experienced by persons living with PD in Sweden, and how it contributes to well-being and health.

Methods and respondents

Study design

For this study a qualitative approach was chosen since this is suitable for exploring subjective experiences, values, and emotions as well as social dynamics and the importance of the environment. An inductive approach was used for the analysis, meaning that themes and subthemes are allowed to emerge from the data, rather than starting with a pre-existing theory [20,21]. Data were collected from focus groups, which is a method suitable for collecting data from several participants at the same time, as well as gaining different perspectives by enabling interactions between participants [22,23].

Participants, setting and recruitment

The participants of the present focus group study were recruited from a quantitative project that applied a cross-over design, which means half of the participants received the intervention over 10 weeks while the other participants waited for 10 weeks. The second group then completed their 10-week course. The project was undertaken at seven different sites in southern Sweden, and enrolled 76 participants across 11 dance groups. The program followed the concept of Dance for PD®, which was developed in 2001 as collaboration between the Brooklyn Parkinson Group and the Mark Morris Dance Group, Brooklyn, USA. It was implemented in Sweden during the first decade of the 2000s. We selected the Dance for PD® program due to its established reputation and evidence base. It is a globally available non-profit program specifically designed for individuals with Parkinson's disease. The validity of Dance for PD® as a method is supported by numerous studies demonstrating its positive impact on motor function, balance, gait, mood, and social inclusion among individuals with Parkinson's [16]. We obtained explicit permission from the Mark Morris Dance Group to use and report on the Dance for PD® program in this study. By selecting Dance for PD®, we aimed to leverage its well-documented benefits and existing infrastructure to provide participants with a high-quality, evidence-based intervention that could be readily implemented and evaluated within the scope of our research.

Fundamental to the Dance for PD® teaching method is that classes are led by professional dancers. Their knowledge of balance, movement sequence, rhythm and aesthetic experience go beyond merely 'performing movements'. During the dance classes, aesthetic experience, technique, and the joy of dance and movement are the focus rather than the limitations and impairments associated with PD [24]. The dance classes were held in dance studios with no connection to healthcare. The class leaders all had different levels of experience with respect to leading dance classes, but all were trained in Dance for PD®, and each dance class followed the structural concepts presented in Table 1.

Participants from six dance classes from locations within reasonable distance of the researchers were asked to participate in the study and those who accepted participation were divided into four focus groups. The locations for the focus groups were chosen based on convenience for the participants, meaning they were located near the cities where the dance

Table 1. Structure of the dance classes for dance for PD®.

1. Warming up sitting on chairs to prepare the body: breathing, brain, increase blood circulation, awareness of the whole body and other dancers in the room, the pianist and the conductor, etc.
2. Pole/chair back exercises with varying dance styles and music, to connect mental and physical aspects and practice different movement qualities.
3. Movement exercises intended to help participants train confidence in balance and movement without support/with support. Walking exercises that focus on feet and rhythm, with the goal that participants should think about and get to know their walking pattern.
4. Choreography with a focus on the joy of movement, through longer and varied dance sequences. It can be compared to a mental puzzle, and aims to affect the more non-motor symptoms such as slowness/delayed thought process, memory difficulties, coordination of the right and left half of the body, etc.
5. Improvisation/pair practice that promotes creativity and imagination, but also provides social interaction and touch.
6. Slowing down/relaxation to focus on your own body and yourself.

classes were held. The sites included one city of around half a million citizens, two towns of around 40000 and 145000 citizens, and an area in the countryside with around 4000 citizens. Participants from the different dance groups were given information about the study, and invited by phone or *via* email to participate in the focus groups. The individuals who chose to participate received an email containing information about the study, as well as consent forms and the location of the place where the focus group interview would be held. Each focus groups comprised 3–6 persons; in total, 19 persons participated: 13 women and six men with a mean age of 69 years (SD = 9). The participants represented different illness-duration and severity. Considering the narrow topic of the study, this number was deemed sufficient based on the pragmatic principle of information power [25].

Data collection

Two researchers (IA and ISTS) moderated three of the focus groups and two other researchers (SF and PB) moderated one focus group. During the focus groups, the moderators asked open-ended questions based on an interview guide, which covered different areas of questioning. The interview guide was developed in cooperation in the research team, which comprised occupational therapists, professional dancers and a public health developer, all of whom had varied experience of the patient group. Questions covered the participants' experiences of taking part in Dance for PD with respect to possible impacts on physical, cognitive or social well-being, and on their ability to perform activities of daily life. The participants were encouraged to speak from the heart, and the aim was for each focus group to be like an ordinary conversation in which each participant could take part as they wished. The moderator posed follow up questions when needed. The assistant moderator made field notes and could also ask additional questions. The focus groups lasted approximately 1 h each, and were recorded and transcribed by the main author.

Analysis

Content analysis, as described by Graneheim and Lundman, was considered to be a suitable method of data analysis given the nature of the study [26]. The transcriptions were read through several times (by IA and ISTS) to ensure a general understanding of the participants' statements. Meaning units were coded using Nvivo12 to describe the content. The main author and one researcher (ISTS) coded two focus groups independently, and then discussed the coding. Thereafter, the coding process was continued by the main author and confirmed again by two co-researchers (ISTS and SF). Codes with similar content were coalesced into categories, and sub-themes were abstracted from the categories. These steps were undertaken manually and were discussed by the research group. One main theme and four sub-themes, with 3–4 categories building the sub-themes, were derived from the analysis. Examples of the analytical process are shown in Table 2.

Ethical approval and consent to participate

Ethical approval was obtained from the Swedish Ethical Review Authority (Dnr 2020-05822 and 2022-01167-02) prior to start of the study. All participants received verbal and written information about the study, and all provided informed, written consent to participate.

Results

Dance provides a multifaceted experience

The main theme that emerged during the analysis was that Dance for PD provided a multifaceted experience. The participants' experiences were related to social relationships formed during the dance classes, the aesthetic context shaped by dance, music and the environment, and the feelings of well-being and the physical experience of dancing. Thus, the main theme contained four sub-themes: *Connectedness*, *Pleasure and glamour*, *Well-being in mind and body* and *Customised movements*, all of which contributed to the multifaceted experience of Dance for PD (Figure 1).

The sub-themes contain various categories that describe the social interactions, the playfulness of dancing, and the features that shaped the participants' experiences of well-being and capability (Table 3).

Connectedness

This sub-theme highlights the advantages of exercising in a group, and that Dance for PD provided the possibility of social interaction. Social interaction occurred spontaneously during the dance class, and was important for the feeling of connectedness.

Reflecting on my situation in light of others

Even if the participants were in different stages of the disease course, they experienced a social belonging when dancing with others in the same situation. Meeting others who shared the same health condition allowed

Table 2. Examples illustrating the process of analysis with meaning units, condensed meaning units, categories and a Sub-theme.

Meaning unit	Condensed meaning unit	Categories	Sub-theme
… dancing with friends who have the same problems as me and see how others are doing…	When dancing with friends who have the same problems, I conclude I'm doing well…	Reflecting on my situation in light of others	*Connectedness*
• That is significant?			
• Yes, then I somehow realise that I'm doing well…			
The opportunity to meet others is very important in my opinion, because you don't talk about this (the disease and its consequences) with, well, 'healthy' friends. It wouldn't be the same, they don't have that understanding, they feel sorry for you when you bring it up…I think meeting others (in the same situation) is valuable, because that's the last thing you really want, to be felt sorry for…	To meet others is important, because you don't talk about this with 'healthy' friends, they feel sorry for you, the last thing you really want.		
… it was roughly the same people who met, and you kind of exchanged experiences…' what has happened this week and how is it with that'…	You exchanged experiences from everyday life.	Being part of a natural social context	
• You got to know each other a little, don't you?	The recognition was there and we had nice small talk.		
• • Not all, but you talked more with some and less with others. But the recognition was somehow there all the time and when we ended up next to each other, we had nice small talk.			
• We socialise a little before and a little after, and that's very good…	We socialise before, after and during class, wére kind of joking and watching each other	Interacting with others	
• • Even during class, we kind of make jokes and watch, we grin sometimes and watch how others are performing… so I think the interaction is important.			
…and we could talk about the movements and giggle a bit and think for yourself 'I'm doing this very strangely' and 'Can you do it?' 'What are you doing?' We also gave each other tips 'Try with that leg,' or had tips from the leader, when you asked for it. I thought that the social aspect had a great importance during class.	We talked about the movements, giggled and gave each other tips, or had tips from the leader, when we asked. The social aspect had great importance.		

participants to experience mutual understanding in a way that was not possible for people without PD. The participants expressed how they were understood without being pitied, and that it was possible to learn more about, or to ask/discuss questions about, the disease.

> In the dance class you meet likeminded people, and when talking to each other, there is a mutual understanding.
>
> (woman, group 1)

Because the people in the Dance for PD were at different stages of the disease, they could relate their own disease picture to that of others. This created both positive and negative experiences for the participants. Someone found it hard to see how affected others were, and had feelings of guilt related to being less affected by the disease than others. Another turned this into gratitude for being spared.

> Woman: …dancing with friends who have the same problems as me and see how others are doing…
>
> Interviewer: that is significant?
>
> Woman: yes, then I somehow realise that I'm doing well…
>
> (group 3)

Being part of a natural social context

Something that was appreciated was being part of a natural, social context in which you could talk about life in general. A feeling of belonging arose when talking for a while before and after the dance class. Seeing each other every week gave participants the opportunity to share experiences and update each other on events in their everyday lives.

> Also, about the social connection, it was about the same people who met, exchanged points of view, what has happened this week and how are things proceeding with that… You won't meet people regularly otherwise and talk that way.
>
> (man, group 4)

For many who had participated in dance classes for several years, friendships had arisen, and they socialised outside of dancing. Those who had danced for a shorter time did not socialise outside of the dance class, but appreciated recognising other participants in other situations, such as in a store. The participants appreciated the social aspect of Dance for PD, and wished for it to be strengthened through, for example, a joint coffee break in connection with the dance class.

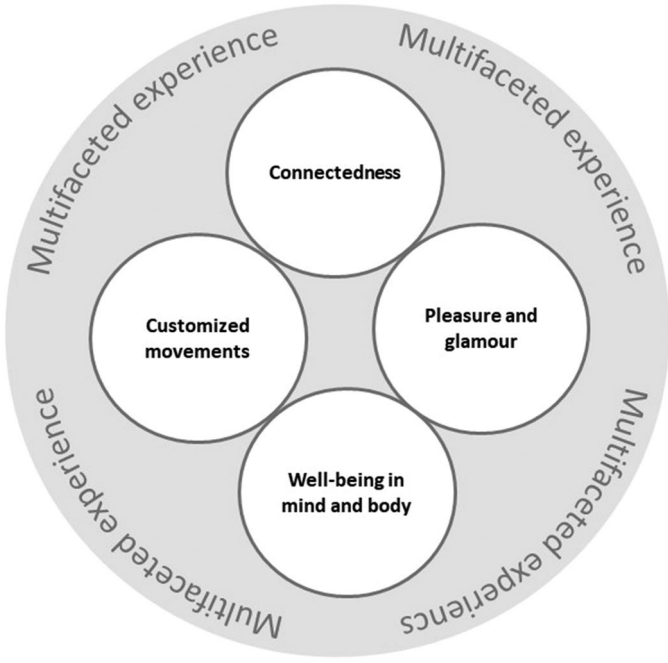

Figure 1. Illustration of the multifaceted experience of Dance for PD.

Table 3. Sub-themes and categories.

Connectedness	Pleasure and glamour	Well-being in mind and body	Customised movements
• Reflecting on my situation in light of others • Being part of a natural social context • Interacting with others	• Feeling playful and glamorous • Feeling the music in body and soul • Getting inspired by the environment	• Becoming joyful • Becoming energised • Becoming calm • Experiencing physical improvements	• Smooth movements of the body as a whole • Dancing in line with one's capability • Feeling safe

Interacting with others

During the dance classes, the participants laughed together and exchanged meaningful glances when an exercise was difficult to perform, and they gave each other advice on how to do it. The participants described that this kind of interaction was more common in dance than in other forms of exercise they had participated in.

> We talked about the movements and giggled a little and I would think by myself, 'Oh, I'm doing this movement very strangely' and ask the others, 'Can you do it, how do you do it?' And I got some tips from the others too, 'Try with that leg', or tips by the leader, when I asked. So, I think that the social interaction has a big significance in Dance for PD.
>
> (woman, group 4)

Because the dance class was performed as a group, there was to some extent a positive peer pressure that made the participants push themselves a little bit harder, thereby gaining more from the class. The participants compared dancing in a group with their experiences of individual or home-based training and felt that when you dance in a group and outside the home, it gives you the added motivation to train, which is a great positive.

Pleasure and glamour

This sub-theme highlights the participants' experience of the aesthetic characteristics of Dance for PD. Different dimensions of Dance for PD, such as playfulness, coordination of movements with the music, as well as the environment in which the classes took place, contributed to the aesthetic experience.

Feeling playful and glamorous

In the dance class, there was an aesthetic dimension that gave rise to playfulness and evoked associations with different TV shows that highlight the glamour in dance, and with classical ballet. The dance was perceived as playful, and some exercises were theatrical, which was considered childish by some but inspiring by others.

> Partly it was 'Can Can' and 'Saturday Night Fever' and …old songs like that and there was a lot of movements with the arms and legs, and we were supposed to try to

dramatize, so it was a bit of theatre too, almost… and I think that's fun and stimulating too.

(man, group 2)

Feeling the music in body and soul

The music provided experiences of beauty that gave comfort, especially in the dance group that had live, classical piano music. It brought positive experiences for body and soul, which contrasted with the experience of living with PD.

I think it's important to have experiences of beauty when you're living with a disease as difficult as this one… because this can actually give strength, or comfort, I think.

(woman, group 3)

The participants also appreciated other styles of music that were uplifting and catchy, with inspiring beats. The variety of music styles contributed to a positive and diverse experience that inspired the imagination. The participants felt the beats in the body, and coordinated their movements to the different beats and sought to express the music with their movements. The fact that the music was not just background music, and that the movements were coordinated with the music and performed while visualising certain things, was significant for the aesthetic experience, because the music made it easier to perform the different movements.

I also think that the music itself helps to make it a little more fun to do movements and exercises. I almost must mention it in comparison to this boxing training, which I go to… There is also music all the time… but there is no coordination with the movements… but it is much more fun and easier to do the moves when the music is coordinated as it really was at Dance for PD. So, I think that helps in a way, to lift the whole thing as well.

(man, group 2)

Despite the fact that the movements were coordinated with the music, and that Dance for PD was perceived as 'dance' to many, some thought the name 'Dance for PD' was misleading since they had expectations about dancing with a partner. Some felt that it was more like 'rhythmic' movement, or 'movement to music'.

Getting inspired by the environment

Having a spacious dance studio that allowed the participants to move around freely was important. One of the dance halls was described as beautiful, and was within a beautifully designed venue. This environment contributed to the positive aesthetic feeling of glamour and beauty. The dance studio room was equipped with mirrors and bars to hold on to, as well as a piano. The participants thought the live music increased the aesthetic experience. At sites that did not offer live music, participants stressed that a good quality audio system was important for a positive experience of the music.

Well-being in mind and body

This sub-theme contains the participants' descriptions of how Dance for PD affected their well-being, emotions, and abilities during the dance class and during the 10 weeks the classes took place. It also contains descriptions of which components played a significant role in their perceptions.

Becoming joyful

Many participants felt that it was fun to participate in the dance class, the time passed quickly and they felt joyful during the classes, and afterwards.

Woman: I'm very happy, I'm happy after the dance class.

Man: Yes, so it is

(group 1)

The participants also reported feeling joyful when they thought about the dance class during the week, and that they looked forward to the next time. The dance class was an activity that they could attend regularly, and which was enjoyable. The participants also mentioned that they felt happy when they thought back on the dance class long afterwards. Further, joy of movement was mentioned as specific to dance. The participants felt joy in knowing that they were able to able to perform the different movements during the dance class.

Becoming energised

The dance gave an energy boost to some participants, which remained when they came home. Several felt that this was important for their endurance and their ability to deal with everyday tasks that needed to be carried out at home. After the class, they felt energised throughout the day, and sometimes even a little longer.

Yes absolutely, my husband can assure that I'm always so happy when I get home after the dance, I have the energy to do more at home

(woman, group 3)

Becoming calm

Participants stated that they became calmer, both in body and mind, when they danced. They felt more relaxed,

which had positive effects on their sleep and on their ability to think. One participant said that attending the dance classes made it easier to solve crosswords.

> I think it's easier to solve crosswords, just to give an example, but at the same time, I don't know what affects what, but because I'm relaxed, it goes a little faster sometimes, in my head.
>
> (woman, group 3)

Experiencing physical improvements

The participants described a transient, positive impact on physical ability. This meant that the impact was experienced during dance classes, immediately after, and in some respects throughout the 10-week period of Dance for PD. For example, some participants felt that their balance improved through dance, and someone had been able to start cycling again thanks to the dance sessions. Some stated that it was easier to walk during and immediately after the dance class. Other physical effects included a feeling of increased flexibility during the dance class.

> I thought it was so nice to feel that I was a little flexible, that Ím not so stiff, that I could do things, that we could feel, not like ballet dancers, but almost, that feeling.
>
> (woman, group 4)

Participants expressed thoughts about the importance of dancing more than once a week, and continuing in the future to maintain the benefits of dance.

Some participants did not feel any difference at all in their bodies, or overall, related to dance; however, someone considered that maintaining the 'status quo' could be seen as a success because the disease is progressive.

> On the other hand, also the status quo can be regarded as a difference because we know that we are getting worse.
>
> (woman, group 1)

Customised movements

This sub-theme highlights the participants' experience of performing movements adapted for them during Dance for PD. It was experienced as a pleasant form of physical activity involving smooth, flexible movements that target the whole body. Participants felt that it was accepted that they were of differing physical status.

Smooth movements for the body as a whole

During Dance for PD, participants found that training went unnoticed because the dance class was so much fun, and the movements were smoother and less strenuous than other forms of exercise/training.

> …the training was actually sneaked in, we got that training because it was fun, but you didn't regard it as training really, but it was still coordination, different movements to the music, performing and remembering sequences. So, I think that was training that you didn't notice, but it came automatically because it was so much fun.
>
> (man, group 4)

Dance for PD was experienced as targeting the body as a whole, in contrast to physiotherapy, which was perceived as training one body part at a time.

> Woman 1: there are definitely many good physiotherapists
>
> Woman 2: but it can't be compared
>
> Interviewer 2: it can't be compared?
>
> Interviewer 1: why not?
>
> Woman 2: you're there by yourself and she just shows you what to do at home afterwards, you usually just go for a visit…
>
> Interviewer 1: so it's the group and the individual, has anyone been to group training with a physiotherapist then?
>
> Woman 3: we go to water gymnastics
>
> Woman 2: in physiotherapy, it is often a body part or something that is focused on but in Dance for PD it is a whole and if it comes with aesthetic things like the music for example…
>
> (group 3)

Those who had specific rehabilitation needs, for example, related to specific body parts, felt that physiotherapy sessions, which are more targeted, were better than dance in meeting their needs.

Voice exercises were also part in some of the dance classes. Such exercises were not a major part of the class, but were meaningful since the participants were aware that the disease affects the voice and the ability to speak.

Dancing in line with one's capability

The participants stated that the dance leaders adapted the dance movements to account for differences in

the physical capacity of the participants; the class leader demonstrated a more difficult version of the exercises and an assistant demonstrated an easier version. This was perceived as positive, everyone performed at their own level and according to their condition. Participants also described an increase in the degree of difficulty, since different, more advanced movements were added, as well as different beats. The increase in difficulty was noticed both during each dance class and over time, and stimulated both body and mind.

> Man 1: it was stepped up and became more advanced and then they added more and more movements and more subtempos, so to speak…
>
> Man 2: indeed
>
> Man 1: what's it called, dance tours, we kind of started with simpler ones and they gradually increased them, so to speak. Remembering them was getting harder and harder.
>
> (group 2)

Experiences related to adjustment differed, however, between participants. Some of the more affected felt that it was hard to keep up, and some of those not so affected had hoped for more cardio-demanding exercises. Dance for PD was however thought to be a suitable physical activity for persons who were not used to training, and a good way to start exercising. Someone summarised it by saying that different forms of exercise or physical activity fit people differently, depending on the individual and their lifestyle.

> I feel for those who aren't used to exercising or moving at all, and have become more sedentary because of the disease, then Dance for PD might be a start to moving, in a softer way and in a fun way and it might be a way to meet others and such. So, for many Dance for PD can probably be good, it's just that we are different and such.
>
> (woman, group 4)

Feeling safe

The participants felt safe during the Dance for PD classes because the leaders had knowledge of the disease and its consequences. The layout was educational and clear, and the social climate was permissive, which contributed to the feeling of security and confidence. The participants stated that the leaders paid attention to individual needs, were encouraging and gave guidance on how the movements could be adapted in the moment. Participants never had to think about whether they could manage to perform the movements. This contrasted with other forms of training where, they could only keep up to a certain extent due to the physical limitations imposed by the disease.

> After all, Dance for PD is adapted and we must appreciate that we have an educator who has knowledge. Aerobics is great fun, but all of a sudden you notice that you might not be able to do a certain movement fully, your body balance isn't good enough, during the dance class I never have to think about such things.
>
> (woman, group 3)

Discussion

The main theme, multifaceted experience, revealed that the participants liked the positive social, emotional, and cognitive, as well as physical, components of the Dance for PD classes.

The participants perceived the power of Dance for PD through connectedness, leading to a sense of belonging, pleasure and glamour, which in turn provided a sense of well-being in both mind and body; they also thought that the customised movements improved their physical capabilities. All components of the class contributed to the unique multifaceted experience of Dance for PD, making these classes an enjoyable and suitable physical activity for people living with PD. The participants experienced immediate and lasting benefits that reflected each of the various components. Consequently, the results of the present study highlight the importance of Dance for PD as a meaningful way of improving health and well-being, and that Dance for PD meets the specific needs of persons living with PD with respect to managing the physical, psychological, social and cognitive consequences of the disease.

The social connectedness between the participants in the dance classes was of great importance, a finding also confirmed in previous studies [19,27,28]. This shows that dance classes promote a sense of belonging, which is important for health and well-being [8], especially for people living with disability caused by PD or other diseases, who tend to become socially isolated and excluded [29–31]. Participants found social interaction to be more common during dance classes than in other forms of training they had taken part in, which most certainly contributed to the connectedness and the feeling of belonging. The dance classes provided the opportunity to participate in an ordinary social context, in which participants could talk about everyday things, interact and communicate

just like anybody else. Further, the dance classes provided an opportunity to be understood, but not felt sorry for, a kind of support which is important for people living with chronic disease [32,33]. These findings highlight the importance of creating rehabilitation interventions that are customised to specific diagnoses in order to facilitate this kind of support.

Dance is both a social and a cultural activity, and research shows that taking part in cultural activities promotes health [16,34,35]. The primary goal of Dance for PD is aesthetics, moving with grace for the sake of beauty, and expressing feelings through movement [36]. The results of the present study show that the aesthetic dimensions of dance gave rise to playfulness and feelings of glamour, created by inner images shaped by different styles of music. Classical live piano music was said to offer comfort and an experience of beauty. These experiences were in contrast to those of living with PD. Earlier research on dance shows that this kind of experience contributes to a feeling of 'becoming absorbed' or experiencing 'flow', or altering perspective; also, dancing takes the mind away from thoughts of disease and disability and may be a means of escaping from difficult emotions and increase one's ability to cope with stress [16,36–39].

Another feature of dance is that movements are coordinated with the music, which was mentioned by the participants in this study because it made it easier to perform the movements. This was likely an encouraging experience since PD affects the ability to move and may cause freezing. Studies show that concentrating on rhythm and music can help people suffering from PD to improve gait, and to get past the difficulties of freezing, since other parts of the brain are activated [40,41]. Dancing enabled participants to experience the joy of movement, which is remarkable considering that one of the main features of PD is stiffness. Dance for PD is aimed at targeting the particular difficulties caused by the disease, such as flexibility and balance [36], and participants experienced a positive impact on these features. The results of our study also show that dancing improves mood: participants talked of becoming joyful. Following this, dancing increased energy levels and the feelings of joyfulness and being energetic lasted until the next day or even longer, also shown in earlier research [39]. The emotional boost made it easier to cope with everyday tasks; this is noteworthy because the combination of symptoms of PD, such as fatigue and motor symptoms, can place a heavy burden for the individual, hindering the performance of everyday tasks [42–44].

People living with PD also might have difficulties taking part in training sessions that are not adapted to the constraints of the disease. Participants talked about their various experiences of different kinds of training, and said that they had sometimes found it hard to participate due to lack of adaptation. This further emphasises the importance of creating physical activities and rehabilitation modalities that are tailored to this patient group. In Dance for PD, the leader demonstrates a difficult version of the movements, whereas an assistant demonstrates an easier version [36]. This was mentioned by participants as one advantage of the concept, which meant that they did not have to think about whether they would be able to perform the movements; however, this means the experience and skills of the leaders is crucial. It is also important that an assistant is available, to allow adaptations in accordance with the concept, especially if there is a certain level of heterogeneity in the groups with respect to physical ability.

Activity is important for physical health; therefore, keeping active is crucial. However, this might be hard for people with PD, for whom it is especially important to be physically active to maintain and improve physical functions such as mobility and balance [45–47]. The result of this study shows that dance was smoother, more pleasurable and not so strenuous compared to other forms of training that participants had taken part in. This, and the different dimensions of connectedness, beauty, and wellbeing all probably contributed to the adherence to the dance classes. It has been shown earlier that dance programs for PD, also dance classes given online, appear to have low drop-out rates which may contribute to maintaining function [48,49]. Dance classes online can be a good complement or an alternative to in-person classes, however the social interaction and feeling of connectedness are more pronounced in in-person classes [50], which therefore are preferable if possible. Many participants in this study had taken part in classes prior to the study, some even for several years; these participants felt a need for continuity to maintain the positive effects on balance and flexibility as well as mood. Also, the thought of keeping the 'status quo' with respect to functional level gave hope to participants because they could do something themselves to promote their own health. For people living with chronic conditions maintaining hope is of great importance [51–53]. Dance for PD has the potential not only to keep people socially connected and physically active over the years, but also to bring feelings of pleasure and hope.

The results of this study show how the multifaceted experiences of Dance for PD influenced

participants' health and well-being and highlight the importance of participating in meaningful activities. This is in line with occupational therapy's understanding of the connection between participation in occupations, health, and well-being [8]. Additionally, it conforms with a previous study about persons living with PD where participation in meaningful occupations supported them to maintain wellbeing, relationships, and identity [54]. The results from the present study support the importance of meaningful occupations for health and wellbeing which is a core value of occupational therapy [8].

Conclusions

The present study highlights that health and well-being are improved by the multifaceted experience of Dance for PD. It is an enjoyable activity that meets the specific needs of persons living with the physical, psychological, social, and cognitive consequences of PD and should therefore be promoted by occupational therapists.

Methodological considerations

When planning this study, and while collecting and analysing the data and collating the results, we strived to follow the Consolidated criteria for reporting qualitative research (COREQ) checklist [55]. To establish credibility, we included both women and men from different sites, with different durations of illness and with differing lengths of experience with Dance for PD, in the focus groups. One of the focus groups only had three participants, which was deemed too low to be satisfactory and led us to include a fourth focus group. Few men participated, which is a limitation with respect to transferability regarding the effects of the classes on men; however, the focus groups represented different contexts, which led to a richness and variability in the data. In terms of participant checking, the moderators used the technique of constantly confirming and clarifying information during the focus groups [55]. The method used for data collection was considered appropriate [26], and the sample size was deemed large enough to make the study valid based on the principle of information power [25]. During the analysis, there was an agreement among the researchers regarding the different steps. We also present direct quotations to demonstrate differences and similarities between the categories. To establish reliability, an interview guide was used so that the areas of questioning were consistent between and within each focus group. To facilitate transferability, we tried to clearly describe the context of the study and the selection of participants, as well as the process used for data collection and analysis [26]. With respect to transferability, we suggest that the results of this study are relevant to persons worldwide suffering from PD who take part in dance classes inspired by Dance for PD®; however, they not be relevant to those taking part in other dance classes.

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QUESTIONNAIRE

J3(26)

Dance for Parkinson, multifaceted experiences of persons living with Parkinson's Disease

INSTRUCTIONS

- Read through the article and answer the multiple-choice questions provided below.
- **Some questions may have more than one correct answer;** in which case, you must mark **all** the correct answers.

Introduction

Question 1: Persons living with Parkinson's Disease (PD) may face limitations with respect to which of the following? Select **all correct** options.

- **A.** Daily activities of self-care, productivity, and leisure
- **B.** Independence
- **C.** Staying committed
- **D.** Participation in meaningful daily occupations and social activities, which in turn affects their quality of life

Question 2: For people with PD, participating in activities that support and develop the person and their abilities (becoming), that are in line with and support their identity (being), and are performed together with others (belonging), is important for health and well-being.

- **A.** TRUE
- **B.** FALSE

Question 3: Research shows that dance can improve all of the following, **EXCEPT**……**?**

- **A.** Motor impairment, specifically balance
- **B.** Severity of motor symptoms in persons with mild to moderate PD
- **C.** Physical and emotional symptoms
- **D.** Muscular hypertrophy

Methods and respondents

Question 4: In this study, with regard to the structure of the dance classes for PD as shown in Table 1, which of the following were **NOT** included?

- **A.** Warming up sitting on chairs to prepare the body (breathing, brain, increase blood circulation, awareness)
- **B.** Walking exercises
- **C.** Strength training
- **D.** Choreography with a focus on the joy of movement
- **E.** Longer and varied dance sequences (that can be compared to a mental puzzle)

Results

Question 5: The main theme that emerged during the analysis was that Dance for PD provided a multifaceted experience. Which of the following was NOT among the sub-themes?

- **A.** Connectedness
- **B.** Pleasure and glamour
- **C.** Well-being in mind and body
- **D.** Customised movements
- **E.** Leadership

Question 6: With regard to the sub-theme of connectedness, it highlighted the advantages of exercising in a group. Dance for PD provided the possibility of social interaction, which occurred spontaneously, and was important for the feeling of connectedness.

- **A.** TRUE
- **B.** FALSE

Question 7: Which of the following did participants experience during the class? Select **all correct** options.

- **A.** Social belonging experience and mutual understanding in a way that was not possible for people without PD
- **B.** Physical and emotional exhaustion
- **C.** Being understood without being pitied
- **D.** The possibility to learn more or to ask/discuss questions about the disease

Question 8: Something that was appreciated by participants was being part of a natural, social context in which you could talk about life in general, which gave rise to _____?

- **A.** Agreement between participants
- **B.** A feeling of glamour
- **C.** A feeling of belonging
- **D.** An increase in strength

Question 9: All of the following are categories of the sub-theme of wellbeing as shown in Table 3, **EXCEPT**……**?**

- **A.** Becoming joyful and calm
- **B.** Becoming energised
- **C.** Experiencing physical improvements
- **D.** A feeling of glamour

Question 10: Which of the following is **NOT** something that occurred because of interacting with others**?**

- **A.** Laughing together and exchanging meaningful glances when an exercise was difficult to perform
- **B.** Reduced motivation to train
- **C.** Giving each other advice
- **D.** Positive peer pressure that made the participants push themselves a little bit harder

Question 11: Which of the following are included in the sub-theme of pleasure and glamour, as is shown in Table 3? Select **all correct** options.

- **A.** A feeling of belonging
- **B.** Feeling playful and glamorous
- **C.** Feeling the music in body and soul
- **D.** Getting inspired by the environment

Question 12: The participants **felt safe** during the Dance for PD classes for which of the following reasons? Select **all correct** options.

- **A.** The leaders had knowledge of the disease and its consequences
- **B.** The class layout was educational and clear
- **C.** The class was energising and challenging
- **D.** The social climate was permissive

Question 13: Dance for PD was thought to be a suitable physical activity for persons who were not used to training and a good way to start exercising.

- **A.** TRUE
- **B.** FALSE

Discussion

Question 14: The main theme, _____, revealed that the participants liked the positive social, emotional, and cognitive, as well as physical components of the Dance for PD classes.

- **A.** Education
- **B.** Multifaceted experience
- **C.** High intensity exercise
- **D.** Preventing cognitive decline

Question 15: Studies show that concentrating on rhythm and music can help people suffering from PD to improve gait and to get past the difficulties of freezing, since other parts of the brain are activated.

- **A.** TRUE
- **B.** FALSE

THE END

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ANSWER SHEET

J3(26)

Dance for Parkinson, multifaceted experiences of persons living with Parkinson's Disease

*Time spent on activity						hour					min
	A	B	C	D	E		A	B	C	D	E
1						8					
2						9					
3						10					
4						11					
5						12					
6						13					
7						14					
						15					

How relevant was the content of this activity to your scope of practice?			
Not at all	Somewhat	Mostly	Extremely

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