JOCKEY CLUB DANCE WELL PROJECT

IMPACT STUDY

School of Dance | The Hong Kong Academy for Performing Arts

Abstract

This impact study evaluates the physical, psychological, and social effects of the Jockey Club Dance Well Project on participants with Parkinson's Disease in Hong Kong, employing a mixed-method research design. A total of 58 participants were assigned in the experimental group (n=32) and control group (n=26). Before (T0) and after (T1) the eight and twelve-week DW intervention, participants underwent assessments using validated instruments and physical tests, including the Chinese versions of the Movement Disorder Society Unified Parkinson's Disease Rating Scale (MDS-UPDRS), the Berg Balance Scale (BBS), and the Dance for Parkinson's Questionnaire (DPQ), the Time up and GO (TUGT) test, Gait analysis, and Six Minute Walk Test (6MWT), in addition to semi-structured interviews and focus group. The results indicated a significant improvement in motor examination (MDS-UPDRS Part 3) in the intervention group compared to the control group. However, no significant differences were observed between the groups in terms of gait parameters, balance, or measurements of functional mobility. In addition, 12 participants was invited to form a focus group, improvements were seen in the motor aspects of their daily activities (MDS-UPDRS Part 2) and motor complications (MDS-UPDRS Part 4) after the intervention, although these improvements were not sustained during follow-up. Meanwhile, their motor examination scores (MDS-UPDRS Part 3) showed a gradual increase over time. Insights from qualitative semi-structured interviews and focus group discussions conducted over a two-years period revealed that participants experienced enhanced self-awareness, self-expression, self-motivation, and social integration, demonstrating the therapeutic and transformative effects of dance. Despite the three-year duration of the Project, the quantitative data collection was limited to a pre- and post- test design conducted over an eight-week or twelve-week period. During this time, participants attended weekly dance classes, resulting in restricted observations of physical outcomes. Nevertheless, the study underscores the potential of dance as a non-pharmacological strategy to address the multifaceted challenges of Parkinson's disease. Future iterations of the programme could consider increasing session frequency and integrating structured motor training to optimize therapeutic benefits.

Glossary

Term	**Abbreviation/ Definition**
Dance Well	DW
Teaching Artists	Teachers that deliver the Dance Well classes
Dancers	All movers with Parkinson's Disease in the Dance Well project are referred to as dancers, instead of patients
Jockey Club	JC; The funding organization
Hong Kong Academy for Performing Arts	HKAPA
Parkinson's Disease	PD

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1. Introduction

1.1 Overview of Jockey Club Dance Well Project

The Jockey Club Dance Well Project is a creative movement program designed to engage individuals with Parkinson's disease (PD), as well as people of diverse ages and abilities, through regular dance classes and activities in artistic settings. Launched by the School of Dance at the Hong Kong Academy for Performing Arts (HKAPA) in January 2022, this three-year endeavor is supported by the Hong Kong Jockey Club Charities Trust and draws inspiration from the pioneering Dance Well (DW) initiative in Bassano del Grappa, Italy, and the Centro per la Scena Contemporanea in 2013. Originally established in Italy, this innovative practice has since expanded to other cities, including Tokyo, Kyoto, and Kanazawa in Japan, with Hong Kong being the latest to embrace this inclusive approach through the project, inviting local dance artists to collaborate and bring a unique dance experience to the local community.

The Project has engaged 103 dancers with PD, 88 caregivers, and 114 participants from the general public, conducted over 170 DW classes. Participants are encouraged to explore movement and music in refreshing, enjoyable, stimulating, and creative ways within artitic spaces, such as art museums. This inspiring experience nurtures solidarity, fosters community connections, and promotes social cohesion. Participants are inspired to see limitations as opportunities while redefining their understanding of aesthetics and excellence through creative and artistic expression. Through continuous engagement in DW, individuals not only achieve a better quality of life but also, feel empowered, acquire heightened sense of rhythm, balance, and movement, and forge meaningful interpersonal relationships to counteract feelings of isolation often associated with PD, and cultivate creativity and new forms of expression.

Dance Well integrates various rehabilitation strategies to enhance the quality of life for dancers living with PD through dance. Supervised by experts from the NYU Grossman School of Medicine in New York and Fresco Academy in Italy, renowned for their expertise in PD studies, this artistic practie has been featured in the World Health Organization Report 2019, demonstrating the significant impact of dance in enhancing both mental and physical well-being.

1.2 The Impact Study

1.2.1 Literature review and global references

Parkinson's disease (PD) is characterized by the progressive degeneration of dopaminergic neurons in the substantia nigra, resulting in four cardinal motor symptoms: tremors, bradykinesia, rigidity, and postural instability (Poewe et al., 2017). While genetic factors contribute to 5-10% of cases, most cases are idiopathic (Blauwendraat et al., 2020). Treatment approaches typically involve pharmacological interventions, particularly levodopa, alongside surgical procedures like deep brain stimulation (DBS), complemented by allied therapeutic support. There is no cure for the disease despite treatment options.

In 2018, a local case study offered valuable insights on managing PD in the Asian context. With a prevalence rate of 0.5% among individuals aged 55 and above (Chen et al., 2018), Hong Kong encounters distinct challenges in providing care for people living with PD. Research indicates that 44.4 % of individuals experience difficulties with daily activities, while 25% report depressive symptoms (Lau et al., 2018, p. 1045). Cultural factors, particularly the concept of "saving face," have a notable impact on healthcare-seeking behaviors (Wong et al., 2019).

In addition to motor symptoms, PD is associated with non-motor complications. About half of the people living with PD are affected by depression (Marsh, 2013), while up to 80% may develop dementia over time (Aarsland et al., 2017). The socioeconomic impact is substantial, with 33% of individual with PD having to retire early or reduced their work capacity (Armstrong et al., 2014). These findings underscore the importance of comprehensive, multidimensional care approaches that address both motor and non-motor symptoms,taking into account socioeconomic factors.

The evidence suggests that effective management of PD requires holistic care strategies that combine pharmacological interventions with psychosocial support, emphasising the need for ongoing research into both therapeutic approaches and overall approach of service delivery in the healthcare systems.

Dance Interventions for Parkinson's Disease: Current Evidence and Future Directions

Recent systematic reviews and meta-analyzes demonstrate compelling evidence supporting the efficacy of dance interventions for PD. Bek et al.'s (2021) examination of 27 controlled trials validated modest to moderate improvements in motor symptoms, balance, and mobility among participants with PD. These physical benefits are complemented by enhanced cognitive functioning and reduced non-motor symptoms.

Recent research has also revealed the potential positive impact of dance intervention on the affect, self-efficacy, and gait performance among individuals with PD (Fontanesi & DeSouza, 2021). Additionally, randomized controlled trials have demonstrated significant improvements in participants' sleep quality and mood management, addressing critical non-motor symptoms of PD (Ng et al., 2023).

The social dimension of dance interventions proves particularly valuable. Qualitative research indicates that participants experience improved mood, enhanced social connections, and increased sense of mastery (Sundal et al., 2023). These findings align with overall improvements in quality-of-life as documented across multiple studies, suggesting the potential of dance as a comprehensive therapeutic approach.

Structured programs such as Dance for PD® and NeuroTango® have demonstrated efficacy in improving movers' motor and cognitive skills (Hasan et al., 2022). However, the underlying neural mechanisms warrant further investigation. Dance, as a complex sensorimotor activity, engages multiple neural systems related to motor planning, sensory integration, and cognitive processing. The multi-modal engagement demanded by dancing may explain its broad therapeutic benefits.

Research priorities include:

1. Determining optimal parameters for dance interventions (style, duration, intensity)
2. Understanding neuroplastic changes through advanced imaging techniques
3. Investigating long-term outcomes across different clinical populations
4. Developing standardized protocols for implementation

Dance interventions have shown promise as a non-pharmacological approach to managing PD, effectively addressing physical, cognitive, and psychosocial symptoms. These interventions play a valuable role in comprehensive PD care. In the forthcoming section, our research objectives will focus on delving deeper into the therapeutic mechanisms of dance interventions for PD and exploring their potential as key non-pharmacological strategies in PD management.

1.2.2 Research objectives

The impact study aims to examine the physical, psychological, social, and emotional changes experienced by participants with Parkinson's disease in the Dance Well Project through both quatitative and qualitative research methods. The participants are referred to as "dancers" instead of patients in the report.

Research objectives:

1. To examine the effect of dance on dancers' physical, social and mental well-being;
2. To monitor the progression of dancers' physical symptoms of Parkinson's disease throughout the research period ;
3. To evaluate the effectiveness of dance as a tool to support physical functioning in daily living
4. To assess the dancers' motivation towards dance participation;
5. To evaluate how dance can improve participants' quality of life;
6. To measure changes in dancers' self-perception and self-efficacy before and after participating in the Dance Well project;
7. To evaluate the achievements of the teaching artists from an artistic perspective

1.2.3 Significance of the study

This study explored the multifaceted impact of dance on individuals with Parkinson's disease, addressing crucial aspects of physical, social, and mental well-being. By examining the effects of dance on these dimensions, the research aims to provide comprehensive insights into how dance can enhance quality of life and support physical functioning in daily activities. Additionally, monitoring the progression of physical symptoms will offer valuable data on the potential therapeutic benefits of dance. Understanding dancers' motivation and changes in self-perception and self-efficacy will shed light on the psychological and emotional effects of dance participation. Overall, the study seeks to establish dance as a holistic intervention, promoting well-being and improving the quality of life for individuals with Parkinson's disease, thus contributing valuable knowledge to the fields of dance for health and Parkinson's disease management.

2. Methodology

2.1 Research design

This study adopts a mixed-method research design that implemented both quantitative and qualitative approaches to thoroughly assess the impact of DW. It was conducted between September 2022 and August 2024, aiming to capture physical, psychological, social, and emotional changes among participants through quantitative methods and qualitative enquiry.

Depending on the availability of the venue, participants were enrolled either in an eight- or twelve-session DW program. Classes were scheduled weekly (in most case – as some were held by-weekly, and some classes were cancelled due to adverse weather conditions). Each class lasted for 60 minutes, with an extra 15 minutes welcoming and networking session before each class, and another 15 minutes reflection and farewell session after each class. A typical class structure is as below:

1. Warm Up (15 mins)
2. Moving in Space and Improvisation - elements may include: lines, touch, weight, focus, etc. (20 mins)
3. Choreographic Sequence (15 mins)
4. Cool Down (10 mins)

2.2 Participants

A power analysis (G*Power 3.1) suggested that a sample size of at least 128 participants would be needed to achieve 80% power, based on an assumed effect size of 0.5 and an alpha level of 0.05. However, due to recruitment constraints, this study included 58 individuals diagnosed with Parkinson's disease (PD) of varying severity levels, enlisted through channels such as social media, local Parkinson's organizations, and word of mouth. Participants were randomly assigned to either a wait-list control group, which received the intervention after the study period, or the dance-based intervention (DW) group. In the DW group, 21 participants completed an eight-week program, while 11 completed a 12-week program, each involving one session per week. The variation in program duration was influenced by venue availability rather than the study design. Individuals engaging in other dance or physical activities during the study were excluded to maintain consistency. All DW group participants were required to maintain an attendance rate of ≥80%. Participant characteristics are detailed in Table 1.

	Total (N = 58)	Control (n = 26)	DW (n = 32)
Male	30	16	14
Female	28	10	18
Age (years)	63.3 ± 8.0	61.7 ± 8.4	64.7 ± 7.5

Hoehn and Yahr stage (median)	2	2	2

Table 1: Characteristics of participants (mean ± SD)

While individual interviews were conducted with all 32 participants from the comparative study, a total of 12 participants were engaged for focus group interviews. Researchers identified and invited 12 participants who showed strong adherence to the DW project across two years to undergo repeat quantitative measurements and participate in a focus group interview. Additionally, two other participants, who were part of the comparative study, were included in the focus group due to their exceptional commitment to the program. These 12 focus group members have attended at least 66 sessions over the three-year project, their characteristics are presented in Table 2.

	Total (N = 12)
Male	5
Female	7
Age (years)	65.7 ± 4.2
Classes attended (average)	66
Hoehn and Yahr stage (median)	2

Table 2: Characteristics of focus group participants (mean ± SD)

2.3 Data collection

2.3.1 Quantitative measures

For participants in the DW experimental group, pre-tests were carried out three weeks prior to their first DW session, while post-tests were conducted within 3 weeks after their completion of all eight or twelve sessions.

Participants in the control group were assessed at two points: before the start of the 10-week period and after its completion. This 10-week window aligns with the duration of the intervention for the experimental group, allowing for a comparative analysis of outcomes.

A set of questionnaires and physical tests were administered during both pre- (T0) and post-(T1) tests, as detailed in Appendix I):

i. The Movement Disorder Society Unified Parkinson’s Disease Rating Scale (MDS-UPDRS) contains 9 scales assessing the performance in daily life activities, health conditions and mental changes related to PD and was used in this study (Houston & McGill, 2015).

ii. The Berg Balance Scale (BBS) is a 14-item objective measure that assesses static balance and fall risk in the elderly (Berg et al., 1992).

iii. Time up and Go (TUGT) is a sensitive assessment for gait and balance evaluation (Svinøy et al. 2021).

iv. The Dance for Parkinson's Questionnaire (DPQ) is a 10-part scale to measure motor and non-motor symptoms and quality of life for individuals with PD.

v. Gait analysis with Force Distribution Measuring System (FDM-2, Zebris GmbH, Isny, Germany) to assess stride length, stance phase time, cadence, step width, stance phase time, pre-swing time and swing time.

vi. Six-Minute Walk Test (6MWT) is used to determine walking capacity, and the total distance covered will be used for analysis (Cazzoletti et al. 2022).

The tests were conducted by physiotherapists on two separate days with at least 24-hour interval. On the first day, 1) MDS-UPDRS (Part 3) questionnaire, 2) BBS and 3) TUGT were conducted sequentially. On the second day, the participants underwent: 1) DPQ, 2) Gait analysis and 3) 6-min walk test (6MWT). This arrangement aimed to minimize the chance of fatigue-induced performance drop physically and cognitively caused by PD (Lin et al., 2021).

2.3.2 Qualitative interviews

The qualitative data was collected through semi-structured interviews and focus group discussions. The goal was to explore participants' perceptions of their experiences with the dance intervention (DW) and its effects on their physical, psychological, and social well-being beyond the classes, as reflected in their daily lives.

All interviews were conducted in Cantonese and recorded using a voice recorder, at the Hong Kong Academy for Performing Arts.

Semi-structured interviews

All 32 participants in the DW group were engaged in face-to-face individual interviews conducted by two research assistants. The interviews were conducted at two points in time: first, midway after the fourth session (or midway after the sixth session for participants who took twelve weeks DW class), and second, after all sessions were complete. An interview guide (Appendix II) was created to give structure to the interviews. Designed collectively by the research team, who had observed more than 90% of the DW sessions, the direction of the inquiry was based on those observations and aimed to investigate participants' subjective embodied experience. Participants had the freedom to deviate from the set questions in a conversational manner. This encouraged them to share their interests, yielding valuable spontaneous insights in addition to the prepared questions. Questions and prompts included, "Having taken a few (or completed all) Dance Well sessions, can you share your feelings about them?", "What motivates you to continue participating in Dance Well?", "What difficulties have you encountered in class?", and "What changes have you noticed in yourself after participating in Dance Well?" The average length of each interview was 30 minutes.

Focus group interviews

The 12 focus group participants were equally divided into two groups depending on their availability. The groups were conducted in June 2024 and August 2024, respectively. Project leader was facilitating the interviews alongside the researchers. The interviews aimed to explore insights into long-term participants' attitudes towards the DW project. Hence, the same set of guiding questions (Appendix II) were employed, with clarification and elaboration probes used as needed. For example, "You mentioned it was great to watch how beautiful the way teaching artists moved. Can you also share what beauty means to you?" The average length of each interviews was 60 minutes.

2.4 Data analysis

2.4.1 Quatitative Data Analysis

Descriptive statistics were recorded to display participants' average age, their progression of PD in terms of the Hoehn and Yahr scale, and the number of the participants randomized in the control and DW groups respectively. The testing result of TUGT, 6MWT and the gait analysis parameters including 1) stride length, 2) double stance phase time, 3) cadence, 4) step width, 5) left limb stance phase time, 6) right limb stance phase time, 7) left limb pre-swing time, 8) right limb pre-swing time, 9) left limb swing time and 10) right limb swing time. They were compared between the control and DW groups.

Kolmogorov-Smirnov test was used to identify normality for each scale parameter in TUGT, 6MWT and gait analysis. The independent sample t-test was used to compare the mean differences in normally distributed data, while Mann-Whitney U-test was used to analyze questionnaire items (MDS-UPDRS questionnaire, BBS and DPQ). Effect size was determined using Cohen'd (<.2 = small, .4 - .5 = medium, .6 - .8 = large) and r (<.1 = small, .3 = medium, .5 = large) (Cohen, 1992). The alpha level for significance was set at $p \leq 0.05$. Statistical analysis was performed using IBM SPSS Statistics version 29 IBM Corp (released 2023. IBM SPSS Statistics for Windows, Version 29.0.2.0 Armonk, NY: IBM Corp).

2.4.2 Qualitative Data Analysis

The audio recordings were transcribed using Microsoft Word, cross-checked by three researchers, and translated into English. Thematic analysis were carried out to closely examine the data and identify common themes. Two researchers deductively started with a set of codes based on the literature, quantitative data, and observation. Throughout the process new codes were inductively proposed until data saturation (Saunders et al., 2018). All codes and themes were discussed and decided collectively at the first read of the transcripts and upon completion of coding to ensure intercoder reliability.

2.5 Ethical considerations

This study has been reviewed and approved by the ethics committee of the Hong Kong Academy for Performing Arts. Informed consent was obtained from all participants through a written form explaining the study's purpose, procedures, and their right to withdraw at any time without consequence. To ensure anonymity, participants were assigned unique codes instead of using identifiable information. All data, including questionnaires and physical assessment results, were stored securely on a password-protected hard disk accessible only to the research team, in compliance with data protection regulations. Participant safety was prioritized by conducting all assessments in a controlled environment with trained staff present to minimize risks, such as falls during gait testing. No potential conflicts of interest were identified in this study.

3. Findings

3.1 Quantitative results

The Mann-Whitney U-test and independent sample t-test revealed no significant change of time (second) and distance (m) for the Timed Up and Go Test (TUGT) and 6-Minute Walk Test (6MWT) respectively between the DW group and the control group (U = 371, p = 0.48, ES = 0.09 small; p = 0.91, ES = 0.03 small).

Regarding gait analysis, there were no statistically significant variances in stride length, step width (cm, U = 428, p = .851, ES = .025 small; p = 0.475, ES = -0.19 small), cadence (step/minute, p = 0.52, ES = -0.17 small), and double stance phase time (ms) (U = 389, p = 0.67, ES = .06 small), left and right leg stance phase time (left leg stance phase: U = 387, p = 0.65, ES = 0.06 small, right leg stance phase: p = 0.93, ES = -0.02 small), left and right leg pre-swing (left leg pre-swing phase: p = .482, ES = .187 small, right leg pre-swing phase: U = 409, p = .919, ES = 0.01 small), and left and right leg swing phase (left leg swing phase: U = 445, p = .650, ES = 0.06 small, right leg swing phase: p = .93, ES = 0.02) (Appendix VI).

In the motor examination of the MDS-UPDRS (Part 3), a significant improvement was observed in the DW group compared to the control group (U = 266.5, p = 0.02, ES = 0.31 medium). However, no notable differences were found in the DPQ and BBS results (p > 0.05) (Appendix VII - VIX).

Among the 12 participants engaged in the focus group who had been actively participating in DW over the two-year, positive changes were observed regarding their motor function across different components of the MDS-UPDRS assessment. Noteworthy changes were observed in the motor aspects of daily living experiences (Part 2). The scores showed an initial improvement from the pre-test (7.70 ± 4.50) to the post-test (6.20 ± 3.43, p = 0.027), although this improvement was not maintained in the post-post test (9.40 ± 4.70, p = 0.032). For motor examination (Part 3), scores increased from pre-test (12.70 ± 11.51) to post-test (14.60 ± 11.56, p = 0.260) and showed an increase in the post-post test (26.40 ± 9.77, p = 0.005). Motor complications (Part 4) showed an initial reduction in scores from pre-test (2.90 ± 1.73) to post-test (1.30 ± 2.16, p = 0.011). However, post-post test scores increased (2.50 ± 2.84, p = 0.676).

3.2 Qualitative findings

Four main themes emerged from the interviews, namely Self-awareness, Self-expression, Self-motivation, and Social integration. Sub-themes are outlined in Table 3. To maintain anoynymous, participants were given code names, for instance, E27 refers to one of the participants in the experimental group (DW) and FG4 refers to one of the participants in the focus group.

Main themes	Sub-themes
Self-awareness	Self-efficacy Self-perception

Self-expression	Creativity Aesthetics
Self-motivation	Enjoyment Peer support Stress relief Music
Social integration	Inter-personal Relationship Lifestyle

Table 3. Main themes and codes

3.2.1 Self-awareness:

Self-efficacy

During interviews, participants expressed how their confidence and self-belief were enhanced by the classes, leading to improved execution of movements. By reconnecting with their bodies through dance, participants became more open to exploring beyond their usual movement patterns, resulting in a fulfilling experience:

> E27: *(By) understanding myself better, I can achieve what I previously believed was impossible*
>
> E28: *I have gained greater confidence with my movement. With a lot of encouragement in class, I discovered that the movements that I normally found challenging were actually not that difficult.*
>
> E18: *Typically, I would not move like this. The range of motion in my limbs has expanded.*
>
> FG4: *There are so many movements that I never thought I would attempt…By observing other participants, despite my initial hesitation to get up and move, I still did it. I'm not afraid of falling.*
>
> FG6: *Although we may not master all the movements taught by the teaching artists, through the attempts, we engage in movements that we wouldn't have done before. This brings me a sense of accomplishment.*

Participants remarked that the movements they practiced in class were effortless and surpassed their expectations. They were able to notice not only improvements in themselves but also observed positive changes in their peers.

> E22: *I am always fearful of falling. I always tend to keep my feet firmly planted ton the ground. But here (in DW session), I can casually lift my leg... I managed smaller steps, also big ones!*
>
> FG1: *I have witnessed one of my classmates who, aftering attending four or five Dance Well sessions, already showed improved posture with a more upright back. It makes me happy to see that my fellow peers with Parkinson's beginning to move in a more agile way.*

Compared to other activities, which typically have standardized criteria for movements, the freedom in DW classes enables participants to determine and achieve movements based on their individual capacities, allowing for creative exploration.

> FG3: *When attending other classes like Tai Chi or yoga, there are standardized movements. If you find yourself unable to keep pace with fellow classmates, frustration may arise. However, due to the freedom allowed in Dance Well, we don't easily feel frustrated when we encounter difficulty with certain moves; instead, we are encouraged to explore alternative ways of moving.*

Self-perception

The majority of participants had no prior experience in any dance activities before enrolling in the DW series. While dancing was not a common pursuit for them; their involvement in the program brough them a sense of freedom and fulfillment. This experience has led to a shift in the perception of what activities dancers with Parkinson's should engage in:

> E18: *We should not limit the range of our activities. We should go out and participate in more activities. We should not refrain from going out and only stay at home because of our health issues; in fact, we need to go out even more.*
>
> FG2: *It makes me feel I am still useful, as I can express what I imagined into actual movement. I feel content when I can perform the movement.*
>
> FG12: *Although I could not perfectly replicate the artist's movement, achieving even a partial imitation brings me great satisfaction. Feeling satisfied makes us happy... While we may not currently possess the confidence to showcase these movements publicly, we are gradually bolstering our self-assurance here (in DW).*
>
> FG6: *Parkinson's patients are trapped by many limitations; we move slowly, and we cannot do a lot of things. It can feel like a bird being confined in a cage. However, the cage is now opened; you can go out and learn to fly. The outcome is uncertain; you might fall. But you have been given a chance to break through those barriers. It is full of possibilities and imagination. That is the feeling of freedom.*

Participants in DW were hopeful that their functional movements could either improve or decline at a reduced pace, demonstrated a change in feelings.

> E22: *I hope I can keep doing exercise and integrate it into my life, similar to how one takes medicine. In the past, I was very pessimistic. I experienced rigidity in the early stage (of PD), and I worried about the potential progression of this symptom...*
>
> E14: *The degeneration may be delayed due to all these stimulations, so my body will not deteriorate so quickly...*

Participants noted that making sound and facial expressions helped them to practice speaking and control their facial expressions:

E28: *Practicing pronunciation with different voice tones (an activity in class) has also improved my speech impediment.*

E18: *We imitated different sounds loudly (an activity in class). It helped and improved our voice and speech.*

3.2.2 Self-expression

Creativity

Creativity was consistently encouraged in class, allowing participants to incorporate it into their daily lives. Without pressure to conform to a specific form, they valued the freedom to create:

E7: *While doing housework, even sweeping with a broom can be like dancing...*

E17: *You need to focus on your own and be aware of your surroundings. (For example,) What's that sound? What are the differences in the sound of the wind, leaves, and the chirping of the birds?*

FG11: *The movements in my limbs are not very agile, but I have realized that I can creatively express my dance steps in a stress-free environment. I can express whatever I like, in my own way. It stimulated my creativity. The combination of being in the different (artistic) venues and surrounded by so many peers with Parkinson's kept everyone very engaged throughout the entire hour.*

Moving the body in novel ways through dance, which participants had never before imagined, sparked a fresh curiosity among participants about how they train their bodies.

E19: *He (the teaching artist) incorporated the elements of stretching and physical exercise (in DW class), making the activities enjoyable rather than boring. Sometimes, we stretched a rubber band (imagery), sometimes we pretended to be a vehicle or an animal, and various elements were included.*

E14: *For example, when it comes to nature, we think of plants and trees. We can imagine how they move, how the wind interacts with us, and how we respond and swing with movements. It naturally involves balance; in a way, it helps to train and improve our balance.*

Aesthetics

Hosting DW in art spaces, such as art museums like M+ Museum, the Hong Kong Heritage Museum and the Mills, allowed participants to explore the beauty of art in their environment and within themselves. They expressed that beauty is not strictly associated with "perfect" movement, but is instead evident in the confidence one exudes while moving.

FG11: *The museum provided professionals to guide us how to look at the arts and appreciate the aesthetics... Typically, we might not notice these details...There are many ways to express a colour or a shape. After I started dancing and combined it with art, even in daily life, it has enhanced my ability to observe beauty in daily life.*

FG6: *I never thought I would dance... I was not interested in dancing because I thought I was not talented. (But now I believe if) I couldn't do it (the movement) the first time, I will do it better next time, as long as I try wholeheartedly. What matters the most to me is that dancing elicits the beauty of the body... When we attend a DW session... no one would laugh at us... we could feel at ease doing it (dancing). When we see the graceful movements of the teaching artist, we are inspired to learn.*

FG12: *You can twist the torso to a "S" shape. If the teaching artists are twisting widely, you can adjust the twist within a smaller range. The key is that you can still create an 'S' shape... and that posture is inherently beautiful. This is what I pursue now — the beauty of our body. Just like what we were talking about earlier, (you asked me) Have you dyed your hair?' Of course I have! It is about personal image, isn't it? It's about the beauty of the body.*

G3: *I believe that beauty comes from heart. I may not move like the teaching artists, but the most important thing is to be happy and expressing ourselves (pointing to his chest) through body language. Our movements may be completely different, but I am really happy... If you do not have confidence, many things are hard to do. With Parkinson's, we might not dance perfectly, but we don't worry about that. Instead, we focus on how to express confidence and happiness in DW sessions.*

3.2.3 Self-motivation

Peer support

Meeting new friends who were supportive and shared the experience of living with Parkinson's strongly motivated participants to adhere to the programme. Participants could share their true feelings and experiences with someone facing a similar condition and found a sense of belonging in this community.

E21: *The reason why I feel happy here, is because we are each other's companions (in the journey of PD)... There is no need to worry about how others might look at me, and I can express myself freely.*

E12: *(At DW I have) A group of friends exercising happily, encouraging each other. My classmates are hard working (to attend regularly), which motivated me to not be lazy.*

E21: *I have to attend even if it's tough and tiring sometimes. There is a positive energy that drives me as I made my commitment to dancing; it encourages me to keep going.*

E18: *My classmates all wanted me to keep coming (to the class); if I do not participate more actively, I might put their efforts to waste.*

Stress relief

Participants felt relaxed and carefree while dancing, as if they had entered a place where they could leave behind their everyday worries, occasionally even reaching a state of flow:

> E2: *When the big group dances together, you forget about your own body.*
>
> E11: *Art can really help us. It enables me to be very focused on one thing and let go of everything else. You can be very relaxed and focused, without pressure.*
>
> E11: *(DW sessions allowed me to) relax myself, be happy, and be exposed to new things. I could put down my work and stress from daily life.*
>
> E31: *The atmosphere (in DW sessions) makes everyone feel relaxed and very happy to be there. When I leave (the session), I carry happy hormones out with me.*
>
> E17: *Having a goal, which is to attend (to DW) and have fun once a week, I feel less bored (as before), my thoughts were not wild and negative. Now that I have a routine, my mood is improved.*
>
> FG4: *The style here is very free-spirited. We can use every part of our body, and we don't have to memorize too much. There is no strict routine. The combination of music, drumming, and singing... The accompaniment can be fast or slow; it is not quite regular. It truly makes me feel very free and very relaxed; it is great for stress relief.*

Enjoyment

Participants relished their time in the DW sessions. Basking in this uplifting atmosphere, they felt inspired and motivated to strive for personal growth. The presence of additional student helpers rejuvenated participants, participants felt "young" again that fueled their determination to persevere:

> E29: *Sometimes, when I am engaged in activities on my own and thoughts of the DW sessions come to mind, I feel cheerful from the bottom of my heart. This is because I have never tried it (dancing) before.*
>
> E21: *When young people dance with us together, I am inspired to mimic their movement and pursue a higher level (of skill), aspiring for improvement.*

Music

Participants also valued the role of music:

> E9: *The choice of music is quite important, especially when we hear familiar songs. We became so immersed in it, and it resonated with us.*
>
> E12: *It (the music) brings me into its rhythm, so I could move and twist my body, as if I am swaying with the breeze.*

3.2.4 Social integration

Inter-personal Relationship

DW provided participants a platform to forge new friendships, create a community, share experiences in coping with the disease, and offer mutual support.

> E11: *Looking ahead to see how I might be when I get older... (meeting other participants) is a pretty positive indicator for me, as I see them working hard to improve themselves.*
>
> E32: *I really want to know that I am not the only one who suffers from (PD)... They have PD too; sometimes, I can also share how I overcome some challenges with them. I guess no one understands Parkinson's disease better than people with Parkinson's disease.*
>
> E17: *Meeting new friends with Parkinson's here (is impactful). What affects us the most is that we tend to isolate ourselves. (Here) I can learn more about different symptoms from others and understand more about my own condition... I rarely interacted with others, but after attending DW sessions, I am more engaged and less hesitant.*
>
> E26: *We serve as each other's companion. We all understand each other's difficulties. I help you and you help me - a consensus that we PD patients have to support each other.*

Participants shared their daily frustrations openly. When the symptoms of PD affected their movements, they experienced discrimination or avoidance. In many cases, this is due to the public's stigmatization and lack of knowledge about PD. In DW, the positive attitudes and energy they received from the student helpers, teaching artists, and other participants in the class conveyed love and support. Feeling understood, or simply having someone who was willing to engage with them, made them feel acknowledged and accepted by society again, as equals:

> E18: *It's wonderful that everyone treats us as normal individuals. In general, people with Parkinson's have concerns about they are perceived by others, but within this DW environment, I feel accepted by you all.*
>
> E5: *(DW showed me that) the society cares about PD and us.. You young people know the different symptoms of PD, you chat with us with such care...Society has not forgotten us.*
>
> FG3: *We are referred to as "dancers"... There are other people in the project, for example, the teaching artists. It makes us feel equal to each other. It is not a situation where the teaching artists hold a superior status and we are considered inferior; all of us are seen as equals here.*
>
> FG4: *They (teaching artists and student helpers) gain a deeper understanding of us through DW, and we can help them understand us better. Many people in society do not really know much about PD. Sometimes, people don't get why I am just standing there and blocking the way out on the train when the door opens (because my legs froze)... A man once misunderstood me. I was shaking, and he thought I was acting inappropriately towards him on the train. I really didn't mean it. I was*

struggling to control my body and movement. If I shake and accidentally bump into someone, there is nothing I can do. If more people are aware about us in society, there would be fewer misunderstandings.

Lifestyle

As the DW series took place in various arts spaces, participants had the opportunity to venture beyond their familiar surroundings and explore another districts of the city. They shared that they do not feel like a "patient" when dancing in these artistic venues:

E19: *I participated in those activities, for example, going to visit art galleries. We wouldn't see these places usually.*
E27: *(Dancing in) Exhibitions and galleries are very engaging. Those are not accessible to everyone.*
E5: *We are patients with Parkinson's in the society, at the Hong Kong Society for Rehabilitation Community, and the Hong Kong Parkinson's Disease Association. We are often pessimistic about our symptoms. But when I come here (DW), looking at those high-quality artworks, with so many people taking care of us, I am gratified.*

Nevertheless, the positive effects on mobility were observed to be limited to the dance classes. Participants encountered of challenges and difficulties from various aspects. Some expressed constraints related to their physical capability or a lack of interest to observe:

E20: *There are no noticeable changes when we are not dancing.*
E26: *When we are dancing, the environment and atmosphere is so joyful. Once I reach home, the feeling is gone.*
E29: *Freely creating movement is a bit difficult. I can't perform the movement I want, for example, when my legs cannot move, when they freeze and I need to get up... My limbs were stiff and I cannot not control them.*
E15: *Sometimes, when I have been standing for too long, I feel like I might fall... Closing my eyes or looking too high places can easily throw me off balance.*
E24: *Maybe I am a very realistic person, I cannot imagine (tasks that require imagination). I shouldn't say I cannot imagine them; it was not difficult, but I don't have much interest.*

Participants successfully integrated their experiences from DW classes into their daily lives, beginning to perceive the world from new perspectives.

E18: *(I see) Different shapes and forms of trees... some can bear fruits while others cannot... When I walk on the street now, I don't only walk; I pay attention to my surroundings. It has enriched my life.*
E21: *I pay more attention to every movement in my daily life.*
E8: *I want to move my body even when I am staying at home. On the days without dance classes, I want to keep active and move!*

4. Discussion

4.1 The 4S: Transformation in behaviors and attitudes

The 4S framework: Self-awareness, Self-expression, Self-motivation, and Social integration, encapsulates the multifaceted impacts of engaging in movement activities on dancers with PD, as evidenced by their reported experiences. These four themes underscore the unique values of participants' experiences that quantitative measurements alone could not fully capture. The positive outcomes align with studies (Fontanesi & DeSouza, 2021; Ng et al., 2023; Sundal et al., 2023), which demonstrated that dance, as an intervention, can enhance the physical, social, and psychological well-being of individuals with PD. Findings from our interviews consistently showcased strong voices of advocacy, illustrating how participants rediscovered hope by observing how others with Parkinson's coped and shared their experiences. They also uncovered new possibilities within their range of movements and imaginations, enjoyed a space to take a break from daily concerns, found strength in peer support, appreciated their own beauty, and embraced their symptoms.

Engaging in movement activities significantly enhanced participants' self-awareness, including both self-efficacy and self-perception. Participants reported notable improvements in their self-efficacy, stating that a better understanding of their physical abilities enabled them to accomplish what they once believed was impossible. Their confidence in movement was nurtured by the encouragement among peers, providing invaluable support in surmounting perceived challenges. Witnessing their fellow participants excel inspired many to discover an expanded range of motion and attempted movements they had never considered achievable. Despite initial apprehensions regarding falls, participants felt more secure and successful as they explored new movements, prioritizing personal growth over flawless execution.

Participants' quotes from the interviews revealed a significant shift in their self-perception. They emphasized the importance of overcoming limitations and embracing new activities, symbolizing the experience as breaking free from confinement. This liberation sparked a revitalized sense of purpose and satisfaction, cultivating a surge in happiness and confidence. Participants expressed a newfound optimism in navigating PD, recognizing exercise as a fundamental component of their daily routine that could potentially delay degenerative effects of their disease. Furthermore, improvements in speech resulting from class activities not only bolstered their enhanced self-image but also contribute to an overall sense of well-being.

Participation in movement activities significantly enhanced participants' self-expression, particularly through creativity and aesthetic appreciation. Participants noted an improvement in their creativity, discovering new ways to incorporate dance into daily tasks and stimulate their creative thinking. Despite physical limitations, they creatively expressed dance steps in a stress-free environment, feeling inspired by their peers. Skilled teaching artists thoughtfully infused imaginative elements into the activities, creating a dynamic and enjoyable atmosphere that helped participants engage creatively with balance and movement.

Additionally, participants noted a substantial improvement in their appreciation of aesthetics. Under the guidance of professionals, they learned to observe and value art in new ways, recognising details they may have previously overlooked. They uncovered the beauty of the body through dance, gaining confidence and feeling comfortable in expressing themselves. Participants admired the elegant movements of the teaching artists and aspired to emulate these moves, finding beauty even in simple gestures. This heightened awareness to bodily aesthetics extended to their personal image, reinforcing the belief that true beauty comes from within and is conveyed through confident and joyful movement.

Self-motivation emerged as a crucial theme, encompassing elements of enjoyment, peer support, stress relief, and the role of music. Participants reported significant stress relief through engaging in DW sessions. Dancing with a group allowed them to transcend self-consciousness and fully immerse themselves in the activity, achieving a state of relaxation. DW sessions provided a break from daily life burdens, offering exposure to new experiences and promoting a sense of happiness. The relaxed and joyful atmosphere, combined with the freedom to move without strict routines, fostered a profound sense of liberation and stress relief. Regular participation improved their mood, alleviating boredom and negative thoughts, leaving them with a sense of joy and relaxation.

Participants emphasized the sheer delight they gained from DW sessions, recalling the activities with genuine enthusiasm. Interacting with younger dancers added an extra layer of enjoyment, inspiring them to emulate their movements and strive for improvement, thereby elevating their overall sense of fun and satisfaction in the sessions. The significant role of music in their DW sessions was also noted. The choice of music was crucial, especially when familiar tunes resonated, deepening participants' immersion and striking a chord with their personal experiences. Music brought them into a rhythm, allowing them to move fluidly and amplifying their overall enjoyment and connection to the activity.

Social integration emerged as a prominent theme, highlighting the impact of inter-personal connections and lifestyle adjustments. Participants highlighted the profound influence of the friendships cultivated during DW sessions. By engaging with others with PD, participants gained a renewed sense of optimism for their own futures, inspired by the resilience and determination of their peers. This shared experience fostered a sense of solidarity, enabling participants to exchange coping strategies and support each other. Connecting with new friends helped alleviate feelings of isolation, enhanced social interaction, and expanded their understanding of various symptoms associated with PD. Furthermore, interactions with dedicated teaching artists and student helpers bridged the gap between those with Parkinson's and the wider community, promoting empathy, understanding, and dispelling misconceptions surrounding the condition. This network of mutual support nurtured a robust sense of community and a collective commitment to aiding one another on their journey of rehabilitation.

Participants shared notable lifestyle changes resulting from their involvement in DW sessions. By immersing in activities such as visiting art galleries and exhibitions, they were introduced to novel experiences and environments, enriching their lives beyond their usual routines. Exposure to exquisite artworks and the care provided during these sessions fostered a sense of gratification and a positive shift in their perspectives on life. Additionally, participants reported increased awareness of their surroundings and movements in daily life, leading to a more mindful and fulfilling existence. The intrinsic desire to remain active and engage in physical movement, both within and outside dance classes, underlined a newfound commitment to incorporating physical activity into their daily routine.

4.2 Optimizing Dance-Based Interventions for PD

The quantitative results of this study revealed that the DW intervention led to moderate enhancements in motor function, as indicated by improvements in the MDS-UPDRS Part 3. However, no significant changes were observed in functional walking, gait parameters, or balance. These findings are consistent with previous research (Ismail et al., 2021) demonstrating the beneficial effects of dance-based interventions on motor control in people with PD. The rhythmic and repetitive movements involved in dance interventions are believed to help mitigate motor deficits associated with PD. Studies by Hackney and Earhart (2009) and Ashoori et al. (2015) have also reported improvements in motor function following dance interventions, underscoring the potential of dance to boost coordination and postural control. The limited impact on walking and gait outcomes in this study could be attributed to the creative and self-guided nature of the DW intervention, which did not incorporate the structured, repetitive exercises known to target specific motor tasks such as walking speed and stride length.

The findings of this study align with previous research suggesting that although dance interventions can yield improvements in motor symptoms, these benefits may not readily translate to everyday situations, especially with a limited number of sessions (McNeely et al., 2015). The relatively brief duration of the DW programme (8-12 weeks) and its infrequent scheduling (once per week) are likely factors contributing to the modest impact observed on gait and daily functioning. Previous studies have indicated that longer and more frequent participation in dance interventions is associated with more substantial enhancements in functional abilities. For instance, Duncan and Earhart (2012) discovered that extended programmes consisting of twice-weekly 1-hour dance sessions over a 12-month period afford participants more opportunities to practice and consolidate motor skills, thereby promoting better adaptation to real-world tasks. Extending the duration of future dance wellness initiatives and incorporating structured motor training may possibly lead to improved outcomes across both motor and non-motor domains, including participants' quality of life and daily activities. Increasing the frequency of classes or integrating targeted exercises focusing on gait, balance, and coordination may further optimize the therapeutic benefits of dance for individuals with PD.

Results among those in the focus group suggest that the intervention provided short-term benefits in daily motor function (MDS-UPDRS Part 2) and motor complications

(Part 4). However, these improvements were not maintained over time. This indicates that while dance-based movement activities may offer temporary enhancemens in mobility and motor control, continued participation may be necessary to sustain these effects. In contrast, there was a significant decline in motor function (Part 3) during the post-test, possibly due to the progressive nature of PD or insufficient long-term neuromuscular adaptation. These outcomes are consistent with previous research indicating that movement-based interventions can improve functional mobility in PD but emphasize the importance of sustained involvement (Yang et al., 2023; Zhang et al., 2023). To enhance long-term effectiveness, future interventions should incorporate strategies to promote ongoing participation, progressive training, or home-based movement programmes.

Furthermore, some participants candidly shared several challenges and difficulties encountered in their journey. While they experienced positive changes within the dance sessions, the joyful atmosphere often faded upon returning home. Physical limitations, such as leg freezing and stiff limbs, made it challenging to create movements freely. Standing for extended periods instilled a fear of potential falls, and actions like closing their eyes or looking upward disrupted their balance, further complicating their movements. Additionally, some participants struggled to engage with tasks requiring imagination, finding it difficult to connect with or muster interest in such activities. These difficulties underscore the multifaceted nature of their experiences, highlighting the need for tailored support and strategies to navigate these hurdles effectively.

To refine the research design for evaluating the potential impact of increased class frequency and resources in future DW projects, a combination of objective and subjective tools should be incorporated to measure class intensity. For instance, heart rate monitors (Kaur et al., 2025), accelerometers, and perceived exertion scales can provide insights into the physical demands of the sessions, allowing for the establishment of clear benchmarks for programme intensity. By integrating these metrics, a more comprehensive evaluation can be conducted to determine the frequency and duration of interventions necessary to achieve meaningful physiological and functional adaptations. This approach ensures that the intervention dosage is tailored to meet the specific physical needs of individual living with PD, thereby maximizing the effectiveness of the program. As the field progresses, especially through mobile brain and body imaging studies, we anticipate gaining deeper insights into the mechanisms behind these therapeutic benefits.

One must take into consideration that DW is an art-based activity rather than a medical treatment.

> "It needs to be recognised that arts practices are heterogenous and do not have treatment goals, but do emphasise what the person brings to a process. The lack of standardisation and goals are to be embraced, rather than criticised for being difficult to measure." (Houston, 2024)

4.3 Future directions

Engaging with the Parkinson's Disease (PD) community, especially those who are isolated, presents a formidable challenge. The participants in this study, potentially more inclined towards activity, may not fully represent the diverse spectrum of individuals living with PD population. To address this disparity, innovative outreach strategies could be explored, such as partnering with more healthcare providers and utilising virtual methods to connect with those most in need (Bek et al., 2021; Delabary et al., 2022). Online dance classes during the Covid-19 pandemic: new challenges and teaching strategies for the 'Dance & Parkinson's at home' project. *Research in Dance Education*, *25*(2), 118–136. https://doi.org/10.1080/14647893.2022.2083595). Some tests may reveal no significant differences due to participants' high baseline scores, limiting the scope for observable progress. Refinement of assessment tools to detect subtle changes and increasing the number of participants will help capture the full impact of the intervention. Despite these challenges, the active participation in DW highlights its potential to enhance the well-being of individuals living with PD and inspire greater community engagement.

5. Conclusion

Dance, as an intervention for degenerative diseases like Parkinson's, offers an alternative means to promote social integration and nurture personal growth, anchored in the values of creativity and well-being. While it is not a substitute for medical treatment, dance addresses a diverse array of needs currently underserved by the medical system in Hong Kong. This impact study demonstrates tangible physical improvement in quantitative assessment, indicating a degree of enhancement or maintenance resulting from the brief intervention. Qualitative data unveils the 4S: Self-awareness, Self-expression, Self-motivation, and Social integration — as positive psychological and social benefits experienced by participants through embodiment in DW classes, which they successfully carried into their daily lives. For future research, enhancing assessment tools to detect subtle changes and expanding the participant pool will more effectively capture the comprehensive impact of the intervention. Additionally, extending the duration of dance wellness initiatives and incorporating structured motor training could lead to improved outcomes in both motor and non-motor domains, including quality of life and daily activities. Increasing class frequency or integrating targeted exercises focusing on gait, balance, and coordination may further optimize the therapeutic benefits of dance for individuals with PD. In conclusion, amidst ongoing challenges, the positive outcomes observed in this study highlight the transformative potential of dance to importantly enhance the lives of individuals living with Parkinson's Disease.

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Appendix

Appendix I: Details of Quantitative Measurement Tools
Appendix II: Question list of mid- and post-program interviews
Appendix III: Unified Parkinson’s Disease Rating Scale (MDS-UPDRS)
Appendix IV: Berg Balance Scale (BBS) survey
Appendix V: Dance for Parkinson’s Questionnaire (DPQ)
Appendix VI: Results from TUGT, 6MWT and gait analysis (mean ± SD)
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Appendix VIII: Focus group test from Time up and go (TUGT), 6-minute walk test (6MWT) and gait analysis
Appendix VIX: Focus group scores from MDS-UPDRS, DPQ and BBS (mean ± SD)

Appendix I

Details of Quantitative Measurement Tools

1. The Movement Disorder Society Unified Parkinson's Disease Rating Scale (MDSUPDRS) consists of 4-subscales for assessing the following areas: Part 1, nonmotor daily life experience; Part 2, motor daily life experience; Part 3 motor examination and Part 4, motor complication. All questions in the MDS-UPDRS are scored on a scale of 0-4 (normal to severe) (Skorvanek et al., 2017). The cutoff point for determining mild/moderate and moderate/severe levels in each subscale was defined as Part 1: 10/11, 21/22; Part 2: 12/13 and 29/30; Part 3: 32/33 and 58/59; and Part 4: 4/5 and 12/13 (Martínez-Martín et al., 2015). The modified Dance for Parkinson Questionnaire (DPQ) contains 9 scales assessing the performance in daily life activities, health conditions and mental changes related to PD and was used in this study (Houston & McGill, 2015).

2. The Berg Balance Scale (BBS) is a 14-item objective measure that assesses static balance and fall risk in the elderly (Berg et al., 1992). The scale of this questionnaire is score from 1-4 (normal to severe) . Participants should understand that they must maintain their balance while attempting the tasks. In most items, the participant is asked to maintain a given position for a specific time. Progressively more points are deducted if: the time or distance requirements are not met; the participant's performance warrants supervision; the participant touches external support or receives assistance from the examiner.

3. Time up and Go (TUGT) is a sensitive assessment for gait and balance evaluation. Participants have to sit in a chair with armrests stand up independently, then walk forward 3 metres, walk back to the chair, and sit down. The whole process will be timed and a total of 3 tests are conducted at an interval of 1 min, with the average time is used as the measure outcome. The test will be done independently under guardianship. Guardians do not make any physical contact with the participant to avoid giving any practical assistance. A previous study also found that the TUGT had high reliability (ICC >0.87) for assessing balance in people with PD (Morris et al.,2001).

4. The Dance for Parkinson's Questionnaire (DPQ) was created by Cynthia McRae, University of Denver and Robert Rubin, UCLA, in 2011. It is a 10-part scale compiled from a number of different validated questionnaires used to measure various symptoms and quality of life issues for people with Parkinson's.

5. Gait analysis with Force Distribution Measuring System (FDM-2, Zebris GmbH, Isny, Germany). Participants' gait measurements will be carried out pre- and post-intervention for gait comparison. Outcome measures include step length, stance phase of both lower limbs, double-stance phase, and cadence.

6. For Six-Minute Walk Test (6MWT), participants have been asked to walk as far as they can for 6 minutes. They are advised that they can slow down or rest if needed. The 6MWT is used to determine walking capacity, and the total distance covered will be used for analysis.

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Appendix II

Dance Well Research Project Interview Questions

In general, questions were asked in the following order, with the prompts in the bracket when necessary.

1. 你可以分享暫時上完幾堂/上完整個賽馬會「觸動」舞蹈計劃(「觸動」)系列的舞蹈課堂的感覺嗎？
   Can you share your feelings after having attended a few Jockey Club Dance Well Project (Dance Well)'s sessions / completed all Dance Well sessions?

2. 你在課堂上最喜歡/最不喜歡是什麼？（為什麼？）
   What did you like the most/least in class? Why?

3. 你最享受/唔享受跳舞班的什麼環節？（為什麼？）
   What was the most/least enjoyable part in class? Why?

4. 有什麼動力使你會繼續上堂？
   What motivates you to continue participating in Dance Well sessions?

5. 有什麼原因令你不想繼續上堂？
   Are there any reasons that makes you hesitate to continue participating in Dance Well sessions?

6. 參加觸動舞蹈課堂後，你在日常生活/社交/身體機能/心理上有沒有新發現/轉變？
   Do you notice any changes or transformations in your daily life / social interactions / physical ability / psychological wellbeing after participating in Dance Well sessions?

7. 你在舞蹈課上認識到新朋友嗎？
   Have you made new friends in class?

8. 你與導師/同學之間的交流如何？
   How was your interaction with teaching artists and classmates?

9. 你可分享對上課內容/課程安排的意見嗎？
   Can you share your feelings about the class content and arrangement?

10. 你認為導師在課堂上的指令如何？（清晰嗎？）
    What do you think about the teaching artists' s instructions? (Was it clear enough to you?)

11. 上堂有沒有遇到困難？（語言：課堂指示，用字，聲線；課堂強度，休息時間；排舞難度，主題，身體動作元素，音樂配搭；上堂的氣氛；選址安排；與非柏金遜舞者/在場人士交流）
    What were the difficulties that you have encountered in class? (e.g., instructions, wording, tone; class intensity, rest time; difficulty of choreography, dance themes, movement, music; class atmosphere; location; interaction with non-Parkinson's participants)

12. 課堂上有自由發揮的舞蹈部份，你能就此分享感受/意見嗎？（會否感到困難/不知道該做些什麼？）
    There were free movement elements (improvisation) in class. What do you think about this? (Did you think it was difficult, or were you confused about what to do?)

13. 你對舞蹈課堂上的音樂感覺如何？
    How did you feel about the music in class?

14. 你前往課堂地點的交通方便嗎？ 這對你上課的動力有影響嗎？
    Did you have any difficulties in traveling to the class locations? Did this affect your motivation to participate?

15. 你可分享對上課地點及環境的感覺嗎？
    What did you think about the class locations and the environment?

16. 你覺得舞蹈課堂的課時長度如何？
    What did you feel about the duration of dance sessions?

17. 課堂上有部份公眾人士（非柏金遜患者）一起參與，你對此感覺如何？
    There were publics (without Parkinson’s) participating in the sessions. What did you think about this?

18. 你能否分享對課堂後，留在場地參加導賞活動的意見嗎？（例如課後體力是否足夠，對導賞內容有沒有興趣等）
    Can you share your opinions on the guided tours at the venues after the sessions? (For example, did you have enough stamina to join the tours after dancing? Were you interested in the guided tours?)

19. 你覺得舞蹈課堂的實際體驗，符合你的預期嗎？
    Do you think the Dance Well experience align with your expectations?

20. 你有否發現，自己現時與參與觸動計劃之前有甚麼轉變嗎？
    What changes have you noticed in yourself, after participating in Dance Well ?

21. 你對觸動的舞蹈課堂有什麼建議？覺得有什麼改善空間？
    What suggestions do you have for this Dance Well project? What do you think can be improved?

22. 你會否願意參加未來的觸動舞蹈課堂？
    Will you consider participating in more Dance Well sessions in the future?

23. 今期課程完畢後，你未來有沒有新的計畫/目標？
    Do you have any new goals/plans after completing the whole series of Dance Well sessions?

24. 你有沒有其他事想分享？
Is there anything else you would like to share?

For Focus group discussion only

25. 你覺得「觸動」跟運動或者瑜伽在功能性上有什麼不同?
What is the functional difference between Dance Well sessions and general exercise or yoga?

Appendix III

International Parkinson and
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世界巴金森暨動作障礙學會

新版世界動作障礙學會巴金森病綜合評量表

世界動作障礙學會贊助的《巴金森病評估量表》修訂

官方世界動作障礙學會繁體中文翻譯版

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世界動作障礙學會權限

由世界動作障礙學會（MDS）贊助的新版巴金森病綜合評量表（MDS-UPDRS）修訂版，其版權由世界巴金森暨動作障礙學會所擁有。 使用該量表需獲得許可，並且可藉由世界動作障礙學會的網站提交申請表來獲得許可。 有關申請許可的查詢，請發送電子郵件至 ratingscales@movementdisorders.org。

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新版世界動作障礙學會巴金森病綜合評量表（**MDS-UPDRS**）工作手冊

世界動作障礙學會（Movement Disorder Society, MDS）贊助的新版巴金森病綜合評量表（UPDRS）是根據巴金森病評量表工作團隊的評論所建立完成（Movement Disorders 2003; 18:738-750）。之後，MDS 聘請一位主席主持一項計畫，以提供動作障礙領域新版的巴金森病綜合評量表，除了可維持原始評量表整體格式，也能解決評論中認為不足或語意不清的問題。該主席將會成立小組委員會，並挑選各委員會主持人與成員。各部分由適當委員會成員撰寫並由整個團體進行審核認可。成員表列如下。

新版的 MDS-UPDRS 評量表包括四大部份，第一部份為評估日常生活中與運動功能無關之經驗，第二部份為評估與運動功能相關之日常生活能力，第三部份為動作功能之檢查，第四部份是評估治療之併發症。其中，第一部份又分成 1A 與 1B，1A 包含許多由研究者根據來自病患或照顧者之訊息所評估的行為。1B 則由病患本身填寫，不論是否由照顧者協助，但不得透過研究者完成。施測者可以檢查是否所有的問題皆已清楚回答，且施測者可以幫忙解釋語意不清之處。第二部份如同 1B，需要病患自行填寫，但研究者可以幫忙檢視以確認回答完整清楚。請注意，1A、1B 以及第二部份的正式版本並無區分「來電」或是」停電」狀態。然而，對於個別研究計畫，這些相同的問題可以依「來電」或是「停電」狀態分別使用。第三部份有指示施測者可先向病患解釋或是示範動作，此部分需由施測者填寫。第四部份有指示給施測者，亦有指示施測者先唸給病患聽，這部份整合來自病患的資訊以及施測者的臨床觀察與判斷，由施測者填寫。

新版 UPDRS 的作者如下：

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說明（一）

第 **1** 部分（**Part 1**）：日常生活中與運動功能無關之經驗

概論：第 1 部份（Part 1）之問卷量表是為了評估巴金森氏病「非運動症狀」對於患者在日常生活經驗中的影響程度。這個部分共分為 13 個問題，第 1A 部分是由施測者來執行（6 個問題）著重於複雜之行為。第 1B 部分是病人自行填寫問卷的部份，內容則包括 7 個關於「非運動症狀」對日常生活經驗之影響的問題。

第 1A 部分：在執行「第 1A 部分」時，施測者應依照下列規定來進行。

1. 在表格上方應註記提供原始資料來源者是病人、照顧者，或是雙方。
2. 對於每一個評估項目的回答應包括測驗當天之近一週內的情形。
3. 所有的項目應為整數的評分等級（不可用 0.5 或空白）。當該項目無法被評估時（例如因截肢手術而無法行走等），則該項目應標記為「UR」（Unable to Rate：無法評量）。
4. 第 1 部份問卷的答案，其所使用文字應能反映患者通常的日常生活功能，且可以對病人使用「通常」、「一般」 、「大部分的時間」等字詞。
5. 每一個問題都有一段文字讓您朗讀（對病患／照顧者的說明）。在該說明之後，您可以依據「對施測者的說明」概述的目標症狀進行探查。但您不可把評分之選項唸給病患／照顧者，因為評分之選項是由醫學術語所寫成。在訪談與探查的過程，您應利用您的醫學判斷來選出最適合的選項。
6. 病人可能合併有其他疾病，而導致影響他們日常生活的功能。您和病人需按照病人現在日常生活功能程度來評估給分，不要企圖去區分是巴金森病還是其他疾病造成的影響。

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對於第 **1A** 部分選擇反應選項的例子

獲得最準確答案的建議策略：

1. 對病人做完說明後，您需要對此正在討論的整個範圍進行探查，以判定是「正常」或是「有問題」。若您的問題沒有找到該部分的異常，則紀錄為「0」，然後進行下一題。
2. 若施測者發現在某一部分有問題，您接下來應該評估病人功能程度是較「中度」者為輕或嚴重來辨別其程度。您應注意勿向病人唸出回答的選項，因為這些回答使用了臨床的詞彙。您應提出足夠的探索式問題以判定合適的選項。
3. 請與病患共同檢視選項，以取得最精確的回答。可排除超過或低於所選擇的選項，最後勾選出最適切的答案。

這個項目對您來說是正常的嗎？ → 是，紀錄正常（0）

↓

「不，我有問題」，考慮以「輕微」（2）作為參考點，再與（1）做比較 → 是，「很少」是最接近的，再確認並紀錄「很少」（1）

↓

若「輕微」（2）比「很少」（1）更接近 ，考慮「中度」（3）是否更適合 → 不，說「中度」太嚴重了，再確認並紀錄「輕微」（2）

↓

是，「中度」（3）比「輕微」（2）更接近，考慮「嚴重」（4）是否更適合 → 不，說「嚴重」太嚴重了，再確認並紀錄「中度」（3）

↓

是，「嚴重」（4）是最接近的 → 再確認並紀錄「嚴重」（4）

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第一部分 :日常生活中與運動功能無關之經驗 （nM-EDL）

第一部分 A：複雜的行為： [由施測者填寫]

主要訊息來源：
□病患，□照顧者，□病患和照顧者

向病患解釋：我現在會問您 6 個問題，關於您是否曾經歷某些行為。問題中有些是關於較常見的狀況，有些則是較少見的情況。如果答案選項中有您發生的情形，請選出最能代表在過去一週內您大部分時間的感受。如果您沒有發生這些狀況，您可以簡單地回答無。我會詢問您全部的問題，其中部份可能是您並未發生過的狀況。

	分數
1.1 認知功能受損 對施測者的說明：請考慮各種認知功能的改變程度，包含：認知變慢、推理能力衰退、記憶力喪失、注意力及定向感不足，依據病患和（或）照顧者的認知評量對日常生活活動的影響。 *對病患[及照顧者]的說明：在過去一週內，您是否在記憶、與人對話、專心、思考、在家附近或街道中找路等方面有困難呢？ [如果病患回答是，施測者要求病患或照顧者詳細說明並探詢更多資訊]。* 0：正常：沒有認知功能受損。 1：很少：病患或照顧者察覺有受損，但並不對病患正常進行日常生活及社交的能力構成具體干擾。 2：輕微：臨床上有明顯的認知功能障礙，但僅對病患正常進行日常生活及社交的能力造成輕微干擾。 3：中度：認知功能受損，會干擾但並不妨礙病患進行日常生活及社交的能力。 4：嚴重：認知功能障礙造成病患無法進行日常生活及社交。	□

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1.2 幻覺和精神症狀

分數

對施測者的說明：確認病患是否有錯覺（對於真實刺激的曲解）以及幻覺 （自發性與實際不符的感覺）。考慮所有主要的感官（視覺、聽覺、觸覺、嗅覺和味覺）。確認病患的妄想或幻覺是否具體：病患可能會有不具體的幻想或幻覺（例如：對於現在或過去發生的事情有錯誤印象的感覺）或是具體的妄想或幻覺（確實的形成並能夠詳細描述）。評估病患是否有上述妄想、幻覺等精神症狀。

對病患[及照顧者]的說明：在過去一週內，您是否有看見、聽到、聞到還是感覺到某些事物但並非真實存在？ [如果病患回答是，施測者須要求病患或照顧者提供更詳盡的訊息]。

0：正常：沒有幻覺或是精神症狀。
1：很少：錯覺或幻影，但病患瞭解此狀況，並未失去自我察覺能力 。
2：輕微：與環境刺激無關而形成的具體幻覺，但病患沒有失去自我察覺能力。
3：中度：有具體的幻覺並喪失自我察覺能力。
4：嚴重：病患有妄想或被迫害妄想症。

□

1.3 憂鬱

分數

對施測者的說明：確認病患是否有情緒低落、悲傷、無望感、空虛感或是失去快樂。判別病患在過去一週內的表現，評估此情況是否會妨礙病患日常生活和社交活動。

對病患[及照顧者]的說明：在過去一週內，您是否感到情緒低落、悲哀、沒希望或是不能享受事物嗎？如果是，這種感覺每次發生時間有超過一天嗎？ 此情況發生會造成您的一般活動不便或是讓您和人相處困難呢？ [如果病患回答是，施測者須要求病患或照顧者提供更詳盡的訊息]。

0：正常：沒有憂鬱的心情。
1：很少：偶發性沮喪，每次發生時間並未持續超過一天，且不會干擾病患日常生活及社交活動。
2：輕微：憂鬱並持續數天，但不會干擾病患日常生活及社交活動。
3：中度：憂鬱會干擾但並不會造成病患停止日常生活及社交活動。
4：嚴重：憂鬱並使病患停止日常生活及社交活動。

□

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1.4 焦慮

分數

對施測者的說明：請判定病患在過去一週內的緊張、緊繃、憂慮或焦慮感(包括恐慌症)，並評量此情況持續時間及是否會對病患進行日常生活和社交活動的能力構成干擾。

對病患[及照顧者]的說明：在過去一週內，您是否曾感到緊張、憂慮或 緊繃？如果是，每次發生這種感覺有超過一天嗎？此情況是否會造成您日常活動或是與其他人 相處發生困難？[如果病患回答是，施測者要求病患或照顧者詳細說明並探詢更多資訊]。

0：正常：沒有焦慮的感覺。

1：很少：有焦慮的感覺，但每次持續時間不超過一天。並未對病患進行日常生活及社交的能力構成干擾。

2：輕微：焦慮感每次持續超過一天，但仍然不會對病患進行日常生活及社交的能力構成干擾。

3：中度：焦慮會干擾但並不妨礙病患進行日常生活及社交的能力。

4：嚴重：焦慮感造成病患無法進行日常生活及社交。

□

1.5 冷漠感

分數

對施測者的說明：請考慮自發性活動、自信、動機和積極性，並評量對日常生活及社交活動之表現程度降低的影響。施測者須能區別病患的冷漠和其他類似症狀，如：憂鬱症。

對病患[及照顧者]的說明：在過去一週內，您是否對於進行活動或是和人相處不感興趣？[如果病患回答是，施測者須要求病患或照顧者提供更詳盡的訊息]。

0：正常：沒有冷漠感。

1：很少：病患或照顧者察覺有冷漠感，但不會干擾日常生活和社交。

2：輕微：冷漠感會干擾獨處和社交。

3：中度：冷漠感會干擾大部分活動和社交。

4：嚴重：被動且孤僻，完全失去積極性。

□

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1.6 多巴胺失調的特徵

分數

對施測者的說明：確認病患是否參與一些活動，包括：異常或過度的賭博（例如：去賭場或買彩卷），異常或過度的性慾或性趣（例如：不尋常的對色情書刊感興趣、自慰、對伴侶有性需求），其他反覆性的行為（例如：嗜好、拆除物體、分類或組織物件），或是非身體需求因素而服用額外的藥物（如上癮的行為）。確認這些異常活動或行為對於病患個人生活、家庭和社會關係上的影響（包括：需要借錢或其他經濟困難，如：信用卡被撤銷、家庭衝突、忘記工作或是因為這些行為造成忘了吃飯或睡覺）。

對病患[及照顧者]的說明：在過去一週內，您有強烈慾望想做某件事並且覺得這慾望難以停止嗎？ 例如：賭博、打掃、使用電腦、吃額外的藥、整個心思都在食物或性方面。
由病患來回答。

0：正常：沒有這類問題。
1：很少：有這類問題存在，但通常不會造成病患或是家庭或照顧者任何困擾。
2：輕微：有這類問題存在，且通常會造成病患個人和家庭生活一些困擾。
3：中度：有這類問題存在，且通常會造成病患個人和家庭生活很大的困擾。
4：嚴重：有這類問題存在，且會妨礙病患進行日常生活及社交活動，使病患難以維持以往個人和家庭的生活。

□

第一部份（日常生活中與運動功能無關之經驗）剩餘的問題，包括[睡眠、白天嗜睡、疼痛和其他感覺異常、排尿、便秘、站立時會頭暈、疲倦]等，會在以下的「病患問卷調查」以及緊接著的第二部分[日常生活中與運動功能相關之經驗]中提到。

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病患問卷調查

說明：

這份問卷將會詢問您有關您日常生活的經驗。

以下有 20 個問題。為了整個測驗的完整性，其中某些問題目前或到目前為止可能對您並不適用。如果您沒有這些問題，請您直接標示答案為 0 表示無此問題。

請您仔細閱讀每一個問題。請先讀完所有的選項之後再選擇最適切的答案。

我們想知道包括今天的過去一週內，您平均或一般的功能狀況。雖然您在一天中某些時間做事能比其他時間更好，不過，因為每個問題僅有一個答案，所以請標記最能夠描述您在大部分時間情況的答案。

除了巴金森病，您或許還有其他症狀，但您不必把巴金森病與其他疾病區分。請您用最適切的答案回答問題。

答案請用 0、1、2、3、4 作答，請勿使用其他符號。答案請勿空白。

您的醫師或護士可以與您一起再檢視這些問題，但這份問卷必須完全由病患自己或是由照顧者協助填寫。

本問卷填寫者（請勾選最適切的答案）：

□病患， □照顧者，□病患和照顧者

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題目 1.7-1.12

1.7 睡眠問題	分數
在過去一週內，您是否有晚上入睡困難或是整夜無法入睡的情況？請考慮早上醒來後您覺得睡得如何? 0：正常：沒有睡眠問題。 1：很少：有睡眠問題，但通常不會造成整夜入眠上的困難。 2：輕微：有睡眠問題，通常會造成整夜入眠上一些困難。 3：中度：有睡眠問題，會造成整夜睡眠上很大的困難，但一半以上的時間我通常仍可以入睡。 4：嚴重：我整夜大部分的時間無法入睡	□

1.8 白天嗜睡	分數
在過去一週內，您是否有白天維持清醒狀態的困難? 0：沒有：沒有白天嗜睡情形。 1：很少：會有白天嗜睡的情形發生，但是我可以忍住並保持清醒。 2：輕微：當自己一人或放鬆的時候，有時候我會睡著，例如：閱讀或看電視時。 3：中度：當不該睡著時，我有時候會睡著，例如：吃東西或與別人交談時。 4：嚴重：當不該睡著時，我經常會睡著，例如吃東西或與別人交談時。	□

1.9 疼痛和其他感覺	分數
在過去一週內，您身體是否有不舒服的感覺，例如：疼痛、刺痛或是抽痛? 0：正常：沒有不舒服的感覺。 1：很少：我有這些感覺，但我仍可以毫無困難地做事並與人相處。 2：輕微：當我做事或是與人相處時，這些感覺會造成一些困擾。 3：中度：這些感覺會造成很大的困擾，但他們不會讓我無法工作或與人相處。 4：嚴重：這些感覺會讓我無法工作或與人相處。	□

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1.10 排尿問題

在過去一週內，您是否有控制排尿的困難？例如：急尿、頻尿或是漏尿?

0：沒有：沒有控制排尿的問題。
1：很少：我需要經常解尿或是頻尿，但這些情況並不會造成我日常活動困難。
2：輕微：排尿問題造成我日常活動上有些困難，但我不會漏尿。
3：中度：排尿問題造成我日常活動很大的困難，且我會漏尿。
4：嚴重：我無法控制排尿，且必須使用尿布、看護墊或是放置導尿管。

分數

□

1.11 便祕問題

在過去一週內，您是否有便秘問題，因此造成您腸胃蠕動困難？

0：沒有： 沒有便秘問題。
1：極輕微：我有便秘的問題，我需要額外的努力讓我的腸胃蠕動，但這問題並不會干擾我的活動或是讓我感到不適。
2：輕微： 便秘會造成我在做事時的一些困擾或讓我感到不適。
3：中度：便秘會造成我在做事時很大的困擾或讓我感到不適，但這不會讓我無法做事。
4：嚴重：我經常需要別人給予身體的外在協助，才能讓我順利的排便。

分數

□

1.12 當站立時頭暈

在過去一週內，當您坐著或是躺著然後站起來時，您是否有頭昏、暈眩或昏沉感?

0：正常：無暈眩或頭昏眼花。
1：很少：有過暈眩或頭昏眼花，但不會造成我做事困難。
2：輕微：暈眩或頭昏眼花會使我須要扶著東西，但我不須坐著或是躺回去。
3：中度：暈眩或頭昏眼花會讓我須要坐下或是躺下，避免我昏倒或跌倒。
4：嚴重：暈眩或頭昏眼花會造成我昏倒或跌倒。

分數

□

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1.13 疲倦

在過去一週內，您是否經常覺得疲倦呢？這種感覺並不屬於想睡或是悲傷的一部分

0：正常：沒有疲倦感。
1：很少：有疲倦感，但這不會造成我做事及與人相處困難。
2：輕微：疲倦會造成我做事及與人相處上有些困難。
3：中度：疲倦會造成我做事及與人相處上很大的困難，但這不會讓我無法做任何事情。
4：嚴重：疲倦會讓我無法做事或與人相處。

分數

□

第二部份：日常生活中與運動功能相關之經驗（**M-EDL**）

2.1. 言語

過去一週內，您有言語上的問題嗎？

0 ：正常： 沒有問題。
1 ：很少： 我說話輕聲、含糊不清或不順暢，但不需要重覆述說。
2 ：輕微： 我偶爾需要重覆述說一遍，但不是每天都這樣。
3 ：中度： 我因說話不夠清楚，因此每天別人都要我重覆述說，雖然他們可以了解我的意思。
4 ：嚴重： 我的語言能力大部份時間或幾乎完全無法被了解。

分數

□

2.2. 唾液分泌與流口水

過去一週內，當清醒或睡覺時，您通常有唾液過多的問題嗎？

0 ：正常：沒有問題。
1 ：很少：我有過多的唾液在口中，但不會流口水。
2 ：輕微：我睡覺時會流一些口水，但清醒時並不會。
3 ：中度：我清醒時會流一些口水，但通常不需要面紙或手帕擦拭。
4 ：嚴重：我會流很多口水，一直需要面紙或手帕擦拭，避免沾溼衣服。

分數

□

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2.3. 咀嚼與吞嚥

過去一週內，您通常有吞藥或吃飯的問題嗎？是否需要將藥丸切碎或磨碎，或將食物製成軟質、切碎、溫和飲食，以避免被嗆到？

0 ：正常：沒有問題。
1 ：很少：我覺得咀嚼變慢或吞嚥須特別費力，但不會嗆到或須準備特殊飲食。
2 ：輕微：我因有咀嚼或吞嚥問題，需要將藥丸切碎或準備特殊飲食，但過去一週內沒有嗆到情形發生。
3 ：中度：過去一週內，我至少嗆到一次。
4 ：嚴重：我因為咀嚼與吞嚥困難，需插餵食管。

分數

□

2.4. 進食能力

過去一週內，您在進食或是使用餐具上是否有困難呢？如：以手指拿食物或使用刀叉、湯匙、筷子等食器上是否有困難？

0 ：正常：沒有問題。
1 ：很少：我會緩慢，但不需要幫忙，且進餐時不會使食物掉落出來。
2 ：輕微：我進餐時會緩慢，偶爾會使食物掉（散落）出來；有時需要別人的幫助，例如夾菜。
3 ：中度：我進餐時需要別人更多的幫助，但有些事可以獨自做。
4 ：嚴重：我進餐時大部份或所有的需要別人的幫助。

分數

□

2.5. 穿衣

過去一週內，您穿衣是否通常有困難？例如：動作緩慢或需要幫忙扣釦子、拉拉鏈、或穿脫衣服、或首飾嗎？

0 ：正常：沒有問題。
1 ：很少：我動作緩慢，但不需要幫忙。
2 ：輕微：我動作緩慢，有時需要別人的幫助，例如扣釦子、戴手鐲。
3 ：中度：我穿衣時需要別人很多的幫助。
4 ：嚴重：我穿衣時大部份或完全地需要別人的幫助。

分數

□

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2.6. 衛生清潔

過去一週內，您在洗澡、沐浴、刮鬍子、刷牙、梳頭髮、或其他個人衛生清潔上，是否通常有動作緩慢或需要幫忙？

0 ：正常：沒有問題。
1 ：很少：我有點緩慢，但不需要幫忙。
2 ：輕微：我在一些衛生清潔方面需要別人的幫助。
3 ：中度：我很多衛生清潔方面需要別人的幫助。
4 ：嚴重：我所有衛生清潔大部份或所有的需要別人的幫助。

分數 □

2.7. 寫字

過去一週內，您的字跡別人是否常感到難以辨識？

0 ：正常：沒有問題。
1 ：很少：我寫字有點緩慢、笨拙、不工整，但可以辨認所有字體。
2 ：輕微：我某些字不清楚且難以辨認。
3 ：中度：我許多字不清楚且難以辨認。
4 ：嚴重：我大部份或所有的字體無法辨認。

分數 □

2.8. 嗜好和其他活動

過去一週內，您從事嗜好或其他活動時是否有遭到困難？

0 ：正常：沒有問題。
1 ：很少：我動作有點緩慢，但能輕易地從事活動。
2 ：輕微：我從事活動時感到一些困難。
3 ：中度：我從事活動時感到很大的困難，但大部分活動都還可以去做。
4 ：嚴重：我無法去從事大部份或所有的活動。

分數 □

2.9. 翻身

過去一週內，床上翻身是否經常感到困難？

0 ：正常：沒有問題。
1 ：很少：我感到在床上翻身有點困難，但不需要幫忙。
2 ：輕微：我感到在床上翻身困難，且偶爾需要別人的幫助。
3 ：中度：我常常需要別人的幫助。
4 ：嚴重：如果沒有別人的幫助，我完全沒辦法翻身。

分數 □

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2.10. 顫抖

過去一週內，您是否經常抖動或搖擺？

0 ：正常：沒有顫抖。
1 ：很少：我有抖動或顫抖，但不影響日常活動。
2 ：輕微：我有抖動或顫抖，且影響部份日常活動。
3 ：中度：我有抖動或顫抖，且影響許多日常活動。
4 ：嚴重：我有抖動或顫抖，且影響大多數或所有的日常活動。

分數

□

2.11. 起床、離開車或從較低的椅子起身

過去一週內，您在起床、離開車或從較低的椅子起身是否經常感到困難？

0 ：正常：沒有問題。
1 ：很少：我動作有點緩慢或笨拙，但通常一次就可以完成。
2 ：輕微：我需要嘗試多次即可以完成。
3 ：中度：我有時需要別人的幫助，但多數可自己完成。
4 ：嚴重：我大部分或完全地需要別人的幫助。

分數

□

2.12. 走路與平衡

過去一週內，您走路與平衡經常有困難嗎？

0 ：正常： 沒有問題。
1 ：很少： 我走路有點慢或拖著腿，但不曾使用助行器。
2 ：輕微： 我偶爾使用助行器，但不需要別人的幫助。
3 ：中度： 我經常使用助行器（枴杖、助步車）協助走路避免跌倒，但通常不需要別人的協助。
4 ：嚴重： 我經常需要別人協助走路避免跌倒。

分數

□

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2.13. 凍僵

過去一週內，您平日走路時，是否會突然停止或凍僵，腿像釘住在地板上**?**

0 ：正常： 沒有問題。
1 ：很少： 我會短暫凍僵，但很容易再次起步，且不需要別人的幫助或助行器（枴杖、助步車）。
2 ：輕微： 我會凍僵，且再次起步時會感到困難，但不需要別人的幫助或助行器（枴杖助步車）。
3 ：中度： 當我凍僵時，會有很多的困難再次起步，且有時需要助行器或別人的幫助。
4 ：嚴重： 因為凍僵，大部份或全部的時間裡，需要助行器或別人的幫助。

分數

□

此時已完成這份問卷。我們可能問了一些您從來不曾有過的問題與症狀。不是所有的病人都會有所有的症狀，但因為它們都有可能會發生，因此這些問題對每位病人都非常重要。非常感謝您撥冗填寫這份問卷！

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第三部份:動作功能檢查

綜論：

UPDRS 第三部份的評量是要檢查巴金森病的動作症狀。在執行這一部分的檢查時，施測者需遵從以下準則:

1. 在表格的最上方註記病患是否正處於治療巴金森病藥物的作用時間中，若是有服用左多巴，請註記距離最後一次服用此藥物的時間。

2. 同時，若是病患有接受治療巴金森病的藥物，請依據以下定義註記病患的臨床功能狀態:

   「來電」是指當病患接受藥物並對藥物治療反應良好時的典型臨床功能狀態。

   「停電」是指當病患即使接受藥物也對藥物治療反應不佳時的典型臨床功能狀態。

3. 施測者應「根據所觀察到的情況來評分」 。無可否認地，同時存在的其他醫療問題，例如腦中風，癱瘓，關節炎，骨折以及骨科相關疾患，例如人工髖關節或是膝關節置換及脊椎側彎等等都會干擾動作功能檢查的每一個項目。當出現絕對無法評估病患的情形時（例如病患截肢，癱瘓或是肢體包紮石膏），請使用「**UR**」做為無法評量的註記。除此之外，請在病患同時存在其他疾病的情況下真實評估病患做每一動作的情形。

4. 所有的評估項目請以整數做分級評估（不要有 0.5 分的分數或是空白)。

5. 個別的施測指南將列在每一檢查項目之中，請遵循這些規則，施測者在向病患解說這些檢查時應示範檢查動作，並立即記錄病患的動作功能分數。關於「整體性動作的評估」以及「靜止型顫抖」等兩項評估（3.17 以及 3.18）已被特意的挪到評量的最後面，因為評估這兩項所需的相

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關資訊需要到整個檢查結束後才能獲得。

6. 在檢查評估的最後，請指出檢查過程中是否有出現「異動症」(舞蹈症或是肌張力不全)，若是有的話，這些異動症狀是否會干擾動作功能的檢查。

3a 病患是否正接受巴金森病藥物的治療? □是 □否

3b 若是病患正接受巴金森病藥物的治療，請依據以下定義註記病患的臨床功能狀態:

□ 「來電」:是指當病患接受藥物並對藥物治療反應良好時的典型臨床功能狀態。

□ 「停電」:是指當病患即使接受藥物也對藥物治療反應不佳時的典型臨床功能狀態。

3c 是否有服用左多巴藥物? □是，□否

3c1 若是有服用左多巴，請註記距離最後一次服用此藥物約幾分鐘________。

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3.1 言語

分數

對施測者的說明：傾聽病患的說話，如果有需要的話請與病患進行對話，可以和病患討論如他的工作、興趣嗜好、運動或是他是如何到醫師的辦公室等話題。評估病患的音量、音調與咬字清晰度，包括是否有口齒不清、口吃與說話急促。

0：正常：　沒有語言的問題。
1：很少：　喪失正常的音調、發音與音量，但是所有的字句仍可以輕易聽懂了解。
2：輕微：　喪失正常的音調、發音與音量，少數的字句聽不清楚，但是整體的語句仍可輕易了解。
3：中度：　病患的語言很難了解，某些語句（但非大部分的語句）非常困難被聽懂。
4：嚴重：　病患的大部分的語言很難了解甚至完全聽不懂。

□

3.2 面部表情

分數

對施測者的說明：觀察病患在靜坐休息 **10** 秒鐘時，不講話及講話時之表情變化，觀察病患的眨眼頻率、有無面具臉或是面無表情，有無自發性的笑容及嘴唇微張。

0：正常：　正常面部表情。
1：很少：　很少面無表情，只有眨眼次數減少而已。
2：輕微：　除了眨眼次數減少之外，面具臉出現在臉的下半部，即嘴巴附近較少運動，例如自發性的笑容減少，但是嘴唇沒有微張。
3：中度：　面具臉，當嘴巴休息時有時會出現嘴唇微張情形。
4：嚴重：　面具臉，當嘴巴休息時大多數的時間會出現嘴唇微張情形。

□

3.3 僵硬	分數
對施測者的說明：僵硬是評估病患在放鬆休息狀態時，施測者轉動、扭轉病患四肢及頸部以評估病患主要關節被移動時的狀況來判斷。分別測量及評分頸部及四肢關節；針對上肢檢查，請同時測試腕關節及肘關節；針對下肢檢查，請同時測試股關節及膝關節。若是沒檢測到僵硬情形，請病患用未測試的另一邊肢體作一些誘發動作，例如手指拍打、手掌握合或是腳根點地等動作。在做此項檢查時請與病患解釋，請其盡量放柔軟。 0：正常： 沒有僵硬。 1：很少： 只有其他肢體在做誘發動作時才可測到。 2：輕微： 不需做誘發動作時即可測到僵硬，但是關節範圍內的動作可以輕易達成。 3：中度： 不需做誘發動作時即可測到僵硬，並且關節範圍內的動作需要吃力才可以達成。 4：嚴重： 不需做誘發動作時即可測到僵硬，並且關節範圍內的動作無法完成。	□ 脖子 □ 右上肢 □ 左上肢 □ 右下肢 □ 左下肢

3.4 手指拍打	分數
對施測者的說明：雙手分別測試。向病患示範如何做這個動作，但是一旦病患開始作測試動作即停止示範。請病患大拇指與食指盡量打開，並以最快的速度拍打十次。雙手分別測試評分，評估動作的速度、手指打開的振幅大小、有無動作遲疑或是停頓，以及是否有手指打開的振幅越做越小的趨勢。 0：正常： 沒有問題。 1：很少： 有下列情形之一：a）手指拍打動作的規律性被一或二次的動作中斷或是遲疑所打斷；b）動作稍微變慢；c）手指打開的振幅在 10 下的範圍最後有越做越小的趨勢。 2：輕微： 有下列情形之一：a）手指拍打動作的規律性被三至五次的動作中斷或是遲疑所打斷；b）動作輕微變慢；c）手指打開的振幅在 10 下的範圍中途有越做越小的趨勢。 3：中度： 有下列情形之一：a）手指拍打動作的規律性被超過五次的動作中斷或是遲疑所打斷，或是出現至少一次的動作凍結；b）動作中度變慢；c）手指打開的振幅在一開始就有越做越小的趨勢。 4：嚴重： 因為動作遲緩或中斷而不能或是幾乎無法做此項動作。	□ 右 □ 左

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3.5 手掌運動

對施測者的說明：雙手分別測試。向病患示範如何做這個動作，但是一旦病患開始作測試動作即停止示範。請病患手握拳頭同時手肘彎曲手心面對測試者，請病患手掌盡量張開並以最快的速度連續手掌握緊-張開十次，若是病患沒有確實的握緊或是張開，請提醒病患。雙手分別測試評分，評估動作的速度、手掌打開的振幅大小、有無動作遲疑或是停頓，以及是否有手掌打開的振幅越做越小的趨勢。

0：正常： 沒有問題。

1：很少： 有下列情形之一：a）手掌開合的規律性被一或二次的動作中斷或是遲疑所打斷；b）動作稍微變慢；c）手掌打開的振幅在 10 下的範圍最後有越做越小的趨勢。

2：輕微： 有下列情形之一：a）手掌開合的規律性被三至五次的動作中斷或是遲疑所打斷；b）動作輕微變慢；c）手掌打開的振幅在 10 下的範圍中途有越做越小的趨勢。

3：中度： 有下列情形之一：a）手掌開闔的規律性被超過五次的動作中斷或是遲疑所打斷，或是出現至少一次的動作凍結；b）動作中度變慢；c）手掌打開的振幅在一開始就有越做越小的趨勢。

4：嚴重： 因為動作遲緩或中斷而不能或是幾乎無法做此項動作。

分數

□ 右

□ 左

3.6 前臂迴旋運動

對施測者的說明：雙手分別測試。向病患示範如何做這個動作，但是一旦病患開始作測試動作即停止示範。請病患手心向下手臂於身體前方伸直，請病患以最快的速度連續將手心完全轉向上面及下面做十次。雙手分別測試評分，評估動作的速度、手掌打開的振幅大小、有無動作遲疑或是停頓，以及是否有手掌翻轉的振幅越做越小的趨勢。

0：正常： 沒有問題。

1：很少： 有下列情形之一：a）手掌翻轉的規律性被一或二次的動作中斷或是遲疑所打斷；b）動作稍微變慢；c）手掌翻轉的振幅在 10 下的範圍最後有越做越小的趨勢。

2：輕微： 有下列情形之一：a）手掌翻轉的規律性被三至五次的動作中斷或是遲疑所打斷；b）動作輕微變慢；c）手掌翻轉的振幅在 10 下的範圍中途有越做越小的趨勢。

3：中度： 有下列情形之一：a）手掌翻轉的規律性被超過五次的動作中斷或是遲疑所打斷，或是出現至少一次的動作凍結；b）動作中度變慢；c）手掌翻轉的振幅在一開始就有越做越小的趨勢。

4：嚴重： 因為動作遲緩或中斷而不能或是幾乎無法做此項動作。

分數

□ 右

□ 左

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3.7 腳趾拍地運動

分數

對施測者的說明：雙腳分別測試。向病患示範如何做這個動作，但是一旦病患開始作測試動作即停止示範。請病患舒適就坐在有直背及把手的椅子上，並將腳跟置放於地上。然後請病患盡量以最大幅度及最快速度腳趾拍地十次。雙腳分別測試評分，評估動作的速度、腳趾距離地板的振幅大小、有無動作遲疑或是停頓，以及是否有腳趾拍打的振幅越做越小的趨勢。

0：正常：沒有問題。

1：很少：有下列情形之一：a） 腳趾拍打的規律性被一或二次的動作中斷或是遲疑所打斷；b）動作稍微變慢；c） 腳趾拍打的振幅在 10 下的範圍最後有越做越小的趨勢。

2：輕微：有下列情形之一：a） 腳趾拍打的規律性被三至五次的動作中斷或是遲疑所打斷；b）動作輕微變慢；c） 腳趾拍打的振幅在 10 下的範圍中途有越做越小的趨勢。

3：中度：有下列情形之一：a） 腳趾拍打的規律性被超過五次的動作中斷或是遲疑所打斷，或是出現至少一次的動作凍結；b）動作中度變慢；c） 腳趾拍打的振幅在一開始就有越做越小的趨勢。

4：嚴重：因為動作遲緩或中斷而不能或是幾乎無法做此項動作。

□ 右

□ 左

3.8 兩腳靈敏度測試

分數

對施測者的說明：請病患坐在附有扶手的靠背椅上，雙腳舒適的放於地板上。雙腳分別測試評分，向病患示範如何做這個動作，但是一旦病患開始作測試動作即停止示範。請病患舒適就坐並將雙腳置放於地上，然後請病患盡量以最大幅度及最快速度將腳抬高跺地拍打十次。雙腳分別測試評分，評估動作的速度、腳距離地板的振幅大小、有無動作遲疑或是停頓，以及是否有腳跺地的振幅越做越小的趨勢。

0：正常：沒有問題。

1：很少：有下列情形之一：a） 腳跺地的規律性被一或二次的動作中斷或是遲疑所打斷；b）動作稍微變慢；c） 腳跺地的振幅在 10 下的範圍最後有越做越小的趨勢。

2：輕微：有下列情形之一：a） 腳跺地的規律性被三至五次的動作中斷或是遲疑所打斷；b）動作輕微變慢；c） 腳跺地的振幅在 10 下的範圍中途有越做越小的趨勢。

3：中度：有下列情形之一：a） 腳跺地的規律性被超過五次的動作中斷或是遲疑所打斷，或是出現至少一次的動作凍結；b）動作中度變慢；c）腳跺地的振幅在一開始就有越做越小的趨勢。

4：嚴重：因為動作遲緩或中斷而不能或是幾乎無法做此項動作。

□ 右

□ 左

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3.9 從椅子上站起來

分數

對施測者的說明：請病患坐在附有扶手的靠背椅上，雙腳舒適的放於地板上，身體往後坐（如果病患身高沒有太矮的話）。請病患兩手交叉置於胸前之後站立起身，若是不成功的話，重複這個動作至多兩次；若仍不成功，請病患維持兩手交叉置於胸前的姿勢，但是身體往椅子前面坐，再試一次；若仍不成功，請病患推椅子的把手站起來，此動作可以允許病患嘗試三次；若仍不成功，請協助病患站起來。待病患站起來後，請觀察病患 **3.13** 項目的姿勢。

0：正常：沒有問題，可以快速不遲疑的站起來。
1：很少：站起來的動作較正常稍微緩慢；或是需要超過一次的嘗試；或是需要身體往椅子前面坐才能站起來。不需要手推椅子把手站起來。
2：輕微：可以自己手推椅子把手站起來。
3：中度：需要手推椅子把手站起來，但是容易向後跌回椅子中；或是需要一次以上的嘗試自己推椅子把手站起，不需要別人幫助。
4：嚴重：無法不須別人幫助的起身。

□

3.10 步態

分數

對施測者的說明：測試步態最好的方式是請病患朝著測試者來回走動，這樣測試者才能同時觀察病患身體的左右側；病患需要走動至少 **10** 公尺（**30** 碼）之後轉身並走回測試者。這個部分檢查許多動作，包括步伐大小、步伐速度、腳步離地高度、走路時腳跟著地情形、轉身與兩手擺動，但不包括步態凍結。可以同時觀察「步態凍結」情形，但是請紀錄於下一評估項目（**3.11**），也可以同時觀察病患的「姿勢」，並記錄於 **3.13** 項目中。

0：正常：沒有問題。
1：很少：可以獨立行走但是有少許的步態問題。
2：輕微：可以獨立行走但是有明顯的步態問題。
3：中度：需要協行工具來幫助病患安全的行走（例如手杖或是助行器），但是仍不需要旁人協助。
4：嚴重：完全無法行走或是需要旁人的協助。

□

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3.11 步態凍結的評估

分數

對施測者的說明：在測試病患步態的時候，同時觀察是否有步態凍結的情形發生。注意是否有起始困難以及碎步、分節的情形發生，特別是在轉彎及快要走到終點的時候。除非有安全上的考量，否則盡可能不要給病患感覺刺激的走路提示。

0：正常：沒有步態凍結。
1：很少：在步態起始、轉彎、或是走過出入口時有一次的停頓，但之後可以於平直路面上平順的行走。
2：輕微：在步態起始、轉彎、或是走過出入口時有超過一次的停頓，但之後可以於平直路面上平順的行走。
3：中度：在平直路面上行走時有一次的步態凍結。
4：嚴重：在平直路面上行走時有多次的步態凍結。

□

3.12 姿勢平穩度

分數

對施測者的說明：此項檢查在測試病患於雙眼張開同時雙腳微張的情形下，被一快速而有力的力量拉動時的身體反應。測試病患往後倒的情形。施測者站於病患身後，並向病患解說接下來會發生的事，並向病患解釋他可以被允許往後退一步以防止被拉倒，在施測者背後應有一面牆，牆應距離施測者至少 **1-2** 公尺以允許施測者觀察病患倒退的情形。第一次拉動病患為示範動作，動作應較輕並且不列入記分中。第二次拉動病患肩膀的動作應快速而有力，已確定病患必須倒退一步以保持平衡。施測者必須隨時準備好以接住病患，但又需距離一段距離以觀察病患倒退保持平衡的情形。不可讓病患採取彎腰的姿勢以試圖對抗你的拉力；小於或是等於兩步的倒退被認為是正常的姿勢平衡反應，所以三部以上的倒退始為不正常的姿勢平穩反應。若是病患不了解你的解說，測試者可以重複的示範此項檢查動作直到病患了解，或是直到測試者明白病患是因行動上的限制而非誤解或是未準備好而導致此項檢查表現不佳。同時觀察病患的「姿勢」，並記錄於 **3.13** 項目中。

0：正常：沒有問題，後退一至兩步即恢復站立平衡。
1：很少：需要三至五步，不須別人協助。
2：輕微：需要五步以上，仍不須別人協助。
3：中度：可以安全的站立，但是缺乏姿勢平穩反應，若沒有施測者捉住，病患會摔倒。
4：嚴重：非常不穩，即使在自然狀態或是輕輕一拉病患的肩膀就有失去平衡的傾向。

□

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3.13 姿勢

對施測者的說明：此項檢查在測試病患於座椅中站起時、行走時以及測試姿勢平穩反應時的姿勢。若你注意到病患的姿勢不正確，提醒病患挺直並檢查姿勢是否有改進（見以下第二評分等級）。對上述三個觀察點中最不正確的姿勢評分，注意是否有身體前傾或是左右側彎的情形。

0：正常：沒有問題。
1：很少：不是很挺直，對老人可算是正常。
2：輕微： 明確的身體側彎、脊柱側彎或是身體傾向一側，但若是經由提醒可以將姿勢矯正回來。
3：中度：姿勢駝背、脊柱側彎或是身體傾向一側，無法經由提醒將姿勢矯正回來。
4：嚴重：嚴重的姿勢駝背、脊柱側彎或是身體傾向一側，導致姿勢極度異常。

分數

□

3.14 全身自發性的動作評估（身體動作遲緩）

對施測者的說明：此項全面性的檢查需綜合下列動作的觀察，包括動作緩慢、遲疑、整體而言的動作及幅度小，此項評估仰賴施測者觀察完病患自發性的動作後的整體印象（包括坐姿、站立時和起身行動等動作）。

0：正常：沒有問題。
1：很少：整體動作稍微變慢，全身自發性的動作稍微減少。
2：輕微：整體動作輕微變慢，全身自發性的動作輕微減少。
3：中度：整體動作中度變慢，全身自發性的動作中度減少。
4：嚴重：整體動作嚴重變慢，全身自發性的動作嚴重減少。

分數

□

3.15 雙手姿態型顫抖

對施測者的說明：所有的顫抖，包括在此姿勢下重新出現的靜止型顫抖，都需被包含於評分中。雙手分別測試，紀錄最大的顫抖幅度。指引病患手心向下手臂於身體前方伸直，手腕打直同時手指分開不碰到隔壁指頭。觀察這個姿勢 **10** 秒鐘。

0：正常：沒有顫抖。
1：很少：出現顫抖，但是顫抖幅度小於一公分。
2：:輕微：出現顫抖，顫抖幅度介於一公分小於三公分。
3：中度：出現顫抖，顫抖幅度介於三公分但是小於十公分。
4：嚴重：出現顫抖，顫抖幅度大或等於十公分。

分數

□
右
□
左

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3.16 雙手動作型顫抖

對施測者的說明：這項檢查需要請病患作手指到鼻頭的來回動作；手臂由伸直的姿勢開始，請病患至少做三次手指到鼻頭的來回動作，請病患的手指盡可能的伸遠去碰觸測試者的手指頭，此項動作需緩慢進行以利觀察是否有顫抖發生。另一隻手也重複此項動作，雙手分開測試。顫抖可以出現在整個手指移動過程中，或是出現在快碰觸到目標物（測試者的手指頭或是病患的鼻頭）時。根據顫抖的最大幅度評分。

0：正常：沒有顫抖。
1：很少：出現顫抖，但是顫抖幅度小於一公分。
2：輕微：出現顫抖，顫抖幅度介於一公分小於三公分。
3：中度：出現顫抖，顫抖幅度介於三公分但是小於十公分。
4：嚴重：出現顫抖，顫抖幅度大或等於十公分。

分數

□
右
□
左

3.17 靜止型顫抖幅度

對施測者的說明：本項與下一項檢查被特意的放在整個動作評估的最後，以允許施測者觀察隨時可能出現在任一檢查項目中的靜止型顫抖，包括靜坐時、走路時或是某部份的肢體被轉動檢測時。根據觀察到的最大幅度顫抖評分，只評量顫抖的幅度，而非顫抖的持續性或是間斷性。

這項檢查尚需要請病患靜坐於椅子上 **10** 秒鐘，雙手靜置於椅子扶手上，同時雙腳舒適的置於地板。靜止型顫抖需要四肢及嘴唇**/**下巴分別評估。根據顫抖的最大幅度評分。

肢體顫抖評估
0：正常：沒有顫抖。
1：很少：出現顫抖，顫抖幅度小於一公分。
2：輕微：出現顫抖，顫抖幅度介於一公分但是小於三公分。
3：中度：出現顫抖，顫抖幅度介於三公分但是小於十公分。
4：嚴重：出現顫抖，顫抖幅度大或等於十公分。

嘴唇**/**下巴顫抖評估
0：正常：沒有顫抖。
1：很少：出現顫抖，但顫抖幅度小於一公分。
2：輕微：出現顫抖，顫抖幅度介於一公分但是小於兩公分。
3：中度：出現顫抖，顫抖幅度介於兩公分但是小於三公分。
4：嚴重：出現顫抖，顫抖幅度大或等於三公分。

分數

□
右上肢
□
左上肢
□
右下肢
□
左下肢
□
嘴唇/下巴

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3.18 靜止型顫抖持續性 對施測者的說明：本項目評分綜合所有檢查時期出現的靜止型顫抖的持續性程度，本項目被特意的放在整個動作評估的最後，以允許施測者綜合所有階段的觀察來評分。 0：正常：沒有顫抖。 1：很少：出現顫抖，顫抖出現的時間佔所有檢查時間的 25%或是更少。 2：輕微：出現顫抖，顫抖出現的時間佔所有檢查時間的 26%-50%。 3：中度：出現顫抖，顫抖出現的時間佔所有檢查時間的 51%-75%。 4：嚴重：出現顫抖，顫抖出現的時間佔所有檢查時間的 75%以上。	**分數** □

異動症對第三部分動作功能評估的影響

A. 異動症（舞蹈症或是肌張力不全）是否在檢查的過程中出現? □是， □否

B. 若有的話，這些異動症狀是否會干擾動作功能的檢查? □是，□否

侯氏與葉氏（Hoehn & Yahr）分期法 第 0 期 = 沒有症狀。 第 1 期 = 單側之症狀。 第 2 期 = 兩側之症狀、姿勢平穩度正常。 第 3 期 = 輕微至中度之兩側症狀，姿勢稍微不平衡，不需他人協助。 第 4 期 = 嚴重失能，但走路和站立仍不需幫助。 第 5 期 = 若沒有人幫助，將完全依靠輪椅或終日臥床。	**分數** □

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第四部份：動作併發症

概覽與說明

在本章節中，評量者使用歷史及客觀資訊評估兩種動作併發症：異動症與藥效波動（包括「停電」時的肌張力不全症）。請利用從病患、照顧者以及臨床檢查等所獲得的資訊回答六個概述病患過去一週內功能狀態的問題。就像之前的其他檢查項目，請用整數來評分等級（不要用 0.5）且不得空白，如出現無法評量的項目，請使用「UR」表示無法評量。您會需要根據病患出現某症狀的頻率比例作為選項的依據，所以您必須確立病患一天通常清醒的時數，並以此數據作為您評量病患「停電」時間或是發生「異動症」比例的分母。若是「停電」引起的肌張力不全症，則分母應是總「停電」時間。

提供給施測者的操作定義**:**

異動症：不自主的任意移動；

病患會認為是異動症的字眼包括「不規則抽動」、「扭動」與「抽動」。請您務必向病患強調「異動症」與「顫抖」的不同，因為病患常會誤會與混淆。

肌張力不全症：扭曲的身體姿勢，經常有肢體扭轉的形態：

病患會認為是肌張力不全症的字眼包括「痙攣」、「抽筋」與「異常姿勢」。

藥效波動：對藥物的不同反應：

病患會認為是藥效波動的字眼包括「藥效減退」、「藥效消失」、「藥效起伏如坐雲霄飛車」、「開**—**關現象」與「不穩定的藥效」。

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停電：為當病患即使接受藥物也對藥物治療反應不佳，或是完全沒有接受巴金森病治療藥物時的典型臨床功能狀態。病患會認為是停電的字眼包括「藥效低」、「藥效差」、「顫抖時間」、「緩慢時間」與「藥效不作用的時間」。

來電：為當病患接受藥物並對藥物治療反應良好時的典型臨床功能狀態。病患會認為是來電的字眼包括「良好時間」、「走路時間」與「藥效作用的時間」。

A. 異動症（不包括「停電」時的肌張力不全症）

4.1 出現異動症的時間

分數

對施測者的說明：請判定一天中一般清醒的時間以及發生異動症的時間各有多少小時，以此計算出兩個時間的比例。若是病患在您的檢查室中正巧發生了異動症，請指出這些動作就是異動症，並且讓患者本身及照顧者瞭解您正在評量的就是這些異動症。您也可以表演您曾在該病患身上或是其他病人身上出現的異動症動作給病患看。在評估此項目時請排除掉清晨或是夜半時會出現的疼痛肌張力不全症。

對病患（與照顧者）的說明：在過去一週內，請問您一天睡眠時間經常是多少小時?這包括夜晚的睡眠以及白天的午休？好的，若是您睡了□小時，這代表您清醒的時間是□小時。在這些清醒的時段中，您有幾小時的時間會發生「不規則跳動」、「扭動」與「抽動」的現象？在您計算這些時間時，請不要把您發生顫抖（為一種規則性的來回震動動作）或是清晨與夜半會發生的疼痛肌張力不全症的時間計算在內，這些症狀會在稍後的評估項目中再請教您。請專注在「不規則跳動」、「扭動」與「抽動」等不規則的動作上即可，請將在您清醒的時段發生這些動作的時間加總起來，共有___小時（以此數字做計算）。

0：正常：沒有異動症。
1：很少：小於或等於清醒時段的 25%。
2：輕微：清醒時段的 26%-50%。
3：中度：清醒時段的 51%-75%。
4：嚴重：清醒時段的 75%以上。

□

1.整日清醒時段（小時）：______
2.整日發生異動症的時間（小時）：______
3.發生異動症的%比例＝（(2/1)×100）______

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4.2 異動症對生活功能造成的影響

對施測者的說明：請判定異動症對病患日常生活功能的影響程度，包括日常活動及社交互動。請根據病患及照顧者對此問題的反應，與觀察病患在您檢查室中的表現來做最好的回答。

對病患（與照顧者）的說明：在過去一週內，當您發生了這些不自主的抽動動作時，是否會對您處理事情或是與人交往產生困擾？這些是否會阻止您處理事情或是與人交往?

0：正常：沒有異動症或是異動症的發生對於日常活動或是社交互動沒有影響。
1：很少：異動症的發生只對少數活動產生影響，病患可以在發生異動症時段執行所有活動及參與社交互動。
2：輕微：異動症的發生對許多活動產生影響，但是病患可以在發生異動症時段執行所有活動及參與社交互動。
3：中度：異動症的發生對病患產生影響，導致病患通常無法在發生異動症時段執行某些活動以及參與某些社交互動。
4：嚴重：異動症的發生對病患產生影響，導致病患通常無法在發生異動症時段執行大多數活動以及參與大部分的社交互動。

分數

□

B. 藥效波動

4.3 發生「停電」的時間

對施測者的說明：請利用上述 **4.1** 項的清醒時間數字並判定病患發生「停電」的時間長短。以此計算出兩個時間的比例。若是病患在您的檢查室中正巧發生了「停電」現象，請指出這種情況就是「停電」的現象，並且讓患者本身及照顧者瞭解您正在評量的就是這些「停電」。您可以根據對此病患過去病史的了解，向他描述「停電」的情形；您也可以表演您曾在該病患身上或是其他病人身上出現的「停電」動作給病患看。請記錄病患發生「停電」現象的小時數，這在接下來的 **4.6** 項目評估中也會用到。

對病患（與照顧者）的說明：某些巴金森病患者對於藥物治療反應良好，在清醒時段動作表現優良，我們稱之為「來電」狀態。某些病患則會經歷即使服用了藥物仍舊會有一段時間動作依舊緩慢、藥效差，醫師會稱這段低潮時間為「停電」狀態。在過去一週內，您剛剛告訴我您一天中清醒的時間是幾小時?。在這些清醒時段中，您有幾小時的時間會發生這種動作陷入低潮或「停電」的狀態?共有□小時（以此數字計算）。

0：正常：沒有「停電」時間。
1：很少：小於或等於清醒時段的 **25%**。
2：輕微：清醒時段的 **26%-50%**。
3：中度：清醒時段的 **51%-75%**。
4：嚴重：清醒時段的 **75%**以上。

1.整日清醒時段（小時）： ______
2.整日發生「停電」的時間（小時）： ______
3.發生「停電」的%比例＝（(2/1)×100） ______

分數

□

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4.4 藥效波動對生活功能造成的影響

分數

對施測者的說明：請判定藥效波動對病患日常生活功能的影響程度，包括日常活動及社交。這部份的問題著重於病患「來電」與「停電」狀態時的差異。若是病患沒有所謂的「停電」狀態，則分數應評為 **0** 分，若是病患有些微藥效波動，只要沒有因此影響到日常生活，分數也可以評量為 **0** 分。請根據病患及照顧者對此問題的反應，與您在診間問診的觀察提供最適切的答案。

對病患（與照顧者）的說明：請您仔細回想，在過去一週內，您是否曾經歷過藥效不佳或是「停電」的時期? 當您覺得藥效不佳時，是否會對您處理事情或是與人交往產生困擾？是否有一些事情，在藥效佳時通常可以處理的很好，但是在藥效不佳時會使您無法處理？

0：正常：沒有藥效波動或是藥效波動的發生對於日常活動或是社交互動沒有影響。 □

1：很少：藥效波動的發生只對少數活動產生影響，病患仍然可以在「停電」時段執行所有「來電」時段可以參加的活動及參與社交互動。

2：輕微：藥效波動的發生對許多活動產生影響，但是病患通常仍然可以在「停電」時段執行所有「來電」時段可以參加的活動及參與社交互動。

3：中度：藥效波動的發生對病患產生影響，導致病患通常無法在「停電」時段執行在「來電」時可以執行的某些活動以及社交互動。

4：嚴重：藥效波動的發生對病患產生影響，導致病患通常無法在「停電」時段執行在「來電」時可以執行的大多數活動以及大部分的社交互動。

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4.5 藥效波動的複雜性

對施測者的說明：請根據用藥劑量、一天中的時間、食物攝取等因素，判定「停電」狀態的預測性。請根據病患及照顧者對此問題的反應，與您的觀察來做最好的回答。施測者需要詢問病患「停電」狀態是否總是在某一些特殊時段出現，或是大部分時間在某一特殊時段出現（此時您需要更進一步區分「很少」或「輕微」），或是只有部分時間在某一特殊時段出現，或是「停電」狀態毫無可預測性？ 盡量縮減預測性的比例範圍可以讓您找到正確的答案。

分數

對病患（與照顧者）的說明：對某些病患而言，「停電」狀態會在某些特殊時段出現，或是在您吃飯或是運動時等活動中出現。在過去一週內，您是否通常都可以預先知道藥效不佳或是「停電」的時段何時會發生？換句話說，您的「停電」狀態是否總是在某一些特殊時段出現？或是大部分時間在某一特殊時段出現？或是只有部分時間在某一特殊時段出現，或是「停電」狀態毫無可預測性？

0：正常： 沒有藥效波動。
1：很少： 所有或是幾乎所有的時間（>75%）「停電」狀態可以被預測。
2：輕微： 大部分的時間（51-75%）「停電」狀態可以被預測。
3：中度： 只有部分的時間（26-50%）「停電」狀態可以被預測。
4：嚴重： 「停電」狀態幾乎無法預測（≦25%）。

□

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C. 「停電」狀態的肌張力不全症

4.6 疼痛性的「停電」狀態肌張力不全症

分數

對施測者的說明：對於有藥效波動併發症的病患，探討在其「停電」時段有多少比例會發生疼痛性的肌張力不全症？您已從先前的評估中（**4.3** 項）知道病患一天中有多少小時處於「停電」狀態，在這個時段中，請判定病患有多少小時會伴隨有肌張力不全症，請計算兩者之比例。若是病患沒有發生「停電」狀態，則紀錄為 **0** 分。

對病患（與照顧者）的說明：在剛剛請教您的問題中，您有提到一天中您通常有__小時是處於對巴金森病藥物反應不好的藥物低潮狀態。在這些藥物反應低潮或是「停電」狀態中，請問您是否通常會出現疼痛性的肌張力不全症？在這些總加為_ _小時的藥物反應低潮或是「停電」狀態中，若是請您把發生疼痛性的肌張力不全症的時間加總起來，總共會有幾小時？

0：沒有肌張力不全症或是「停電」時間。
1：很少：佔「停電」時段的 25%或是更少。
2：輕微：佔「停電」時段的 **26%-50%**。
3：中度：佔「停電」時段的 **51%-75%**。
4：嚴重：佔「停電」時段的 **75%**以上。

□

1. 整日發生「停電」的時間（小時）：_____
2. 「停電」時段合併肌張力不全症的時間（小時）：______
3. 發生「停電」狀態肌張力不全症的%比例＝（(2/1)×100）______

對病患的總結說明：請對病患朗讀以下說明

到這部份已完成我對您巴金森病的評估。我了解這些問題及檢查動作已花費您許多寶貴的時間，但是我希望評估能完整且涵蓋所有的可能性。所以在過程中我可能會詢問您一些您從來沒有過的問題。並不是所有的病患都會有這些問題，但是有可能會發生，因此這些問題對每一位病患都重要。謝謝您撥冗填寫這份評估檢查。

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____________________	____________________	年　月　日	____________________
病患姓名或受試者識別編碼	測試單位編碼	評估日期	評估員姓名

MDS UPDRS Score Sheet

1.A	主要訊息來源:	□ 病患 □ 照顧者 □ 病患和照顧者	3.3b	僵硬 – 右上肢	
			3.3c	僵硬 – 左上肢	
第一部分			3.3d	僵硬 – 右下肢	
1.1	認知功能受損		3.3e	僵硬 – 左下肢	
1.2	幻覺和精神症狀		3.4a	手指拍打 – 右	
1.3	憂鬱		3.4b	手指拍打 – 左	
1.4	焦慮		3.5a	手掌運動 – 右	
1.5	冷漠感		3.5b	手掌運動 – 左	
1.6	多巴胺失調的特徵		3.6a	前臂迴旋運動 – 右	
1.6a	主要訊息來源:	□ 病患 □ 照顧者 □ 病患和照顧者	3.6b	前臂迴旋運動 – 左	
			3.7a	腳趾拍地運動 – 右	
1.7	睡眠問題		3.7b	腳趾拍地運動 – 左	
1.8	白天嗜睡		3.8a	兩腳靈敏度測試 – 右	
1.9	疼痛和其他感覺		3.8b	兩腳靈敏度測試 – 左	
1.10	排尿問題		3.9	從椅子上站起來	
1.11	便祕問題		3.10	步態	
1.12	當站立時頭暈		3.11	步態凍結的評估	
1.13	疲倦		3.12	姿勢平穩度	
第二部份			3.13	姿勢	
2.1	言語		3.14	全身自發性的動作評估（身體動作遲緩）	
2.2	唾液分泌與流口水		3.15a	雙手姿態型顫抖 – 右	
2.3	咀嚼與吞嚥		3.15b	雙手姿態型顫抖 – 左	
2.4	進食能力		3.16a	雙手動作型顫抖 – 右	
2.5	穿衣		3.16b	雙手動作型顫抖 – 左	
2.6	衛生清潔		3.17a	靜止型顫抖幅度 – 右上肢	
2.7	寫字		3.17b	靜止型顫抖幅度 – 左上肢	
2.8	嗜好和其他活動		3.17c	靜止型顫抖幅度 – 右下肢	
2.9	翻身		3.17d	靜止型顫抖幅度 – 左下肢	
2.10	顫抖		3.17e	靜止型顫抖幅度 – 嘴唇/下巴	
2.11	起床、離開車或從較低的椅子起身		3.18	靜止型顫抖持續性	
2.12	走路與平衡			異動症（舞蹈症或是肌張力不全）是否在檢查的過程中出現?	□ 是 □ 否
2.13	凍僵			若有的話，這些異動症狀是否會干擾動作功能的檢查?	□ 是 □ 否

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3a	病患是否正接受巴金森病藥物的治療?	□是 □否		侯氏與葉氏(Hoehn & Yahr)分期法	
3b	若是病患正接受巴金森病藥物的治療，請依據以下定義註記病患的臨床功能狀態:	□來電 □停電	**第四部份**		
3c	是否有服用左多巴藥物?	□是 □否	4.1	出現異動症的時間	
3.C1	若是有服用左多巴，請註記距離最後一次服用此藥物約幾分鐘		4.2	異動症對生活功能造成的影響	
第三部份			4.3	發生「停電」的時間	
3.1	**言語**		4.4	藥效波動對生活功能造成的影響	
3.2	面部表情		4.5	藥效波動的複雜性	
3.3a	僵硬-脖子		4.6	疼痛性的「停電」狀態-肌張力不全症	

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Appendix IV

柏格氏平衡量表 ID: ____________________ **總分: / 56**

【在不使用輔具情況下，取較低分數計分】	分數
1.坐到站。 指令：請試著不用手支撐站起來。(用有扶手的椅子) 4 能夠不用手支撐站起並且自己站穩 3 能夠獨自用手支撐站起 2 能在嘗試幾次之後用手支撐站起 1 需些微幫助下才可站起或站穩 0 需要中度的或大量的幫助才能站起	
2. 維持站姿。 指令：請在不扶任何東西下站兩分鐘。 4 能安全地站 2 分鐘 3 需在監督下才能站 2 分鐘 2 不需要支撐能站 30 秒 1 嘗試幾次之後才能在不需支撐下站 30 秒 0 無法在沒有幫助下站 30 秒	
*如果受試者能在沒有支撐物的情形下站兩分鐘，則第 3 項測試滿分, 直接進行 4 項	
3. 坐在無靠背椅子但腳須有承重。（如可支撐於地上或小凳子上）坐著不扶。指令：請將雙手抱於胸前坐兩分鐘。 4 能安穩且安全地坐兩分鐘 3 在監督下能坐兩分鐘 2 能坐 30 秒 1 能坐 10 秒鐘 0 無法在沒有支撐下坐 10 秒鐘	
4. 站到坐。 指令：請坐下。 4 能在手的些微(甚至沒有)幫助之下，安全地坐下 3 需用手控制坐下速度 2 需用腿的背面抵著椅子來控制坐下 1 能自己坐下，但坐下來的過程中無法將身體(坐下速度)控制好 0 需要協助才能坐下	
5. 轉位。 指令：準備椅子/床以供轉位。 要求受試者轉位至一張有扶手及無扶手的位子, 或一張床及一張椅子。 4 能在手的些微幫助下安全地轉位 3 需用手幫忙始能安全地轉位 2 需在言語的引導或監督下始能轉位 1 需一人幫忙始能轉位 0 需兩人幫忙或指導始能轉位	
6. 閉上眼睛並維持站姿不扶。指令：請閉上眼睛並站好持續 10 秒鐘 4 能安全地站好並持續 10 秒鐘 3 能在監督下站好並持續 10 秒鐘 2 能站好 3 秒鐘 1 無法保持閉眼 3 秒鐘，但可站穩 0 需要幫忙以避免跌倒	
7. 雙腳並排並維持站姿不扶。 指令：請將雙腳並排，不扶任何東西站好	

4 能獨自並排雙腳，安全地站一分鐘 3 在監督下能獨自並排雙腳，站一分鐘 2 能獨自並排雙腳但無法維持 30 秒鐘 1 需協助始能並排雙腳但可站 15 秒鐘 0 需協助始能並排雙腳且無法維持 15 秒鐘	
8. 站姿手前伸。 指令：抬起手臂至 90 度，將手臂與手指伸直並盡量往前伸。(受試者手臂抬至 90 度時，施測者將尺規置於受試者手指末端。當受試者手臂往前伸展時，手指不可觸碰尺規。記錄受試者往前伸展之最遠距離。可能的話請受試者使用雙臂，以避免受試者轉動身體。) 4 能自信地往前伸展 25 公分以上 3 能安全地往前伸展 12 公分以上 2 能安全地往前伸展 5 公分以上 1 需在監督下始能往前伸展 0 伸展時失去平衡或需外力支持	
9. 由站姿撿起地上的東西。 指令：撿起置於腳前的鞋子或拖鞋。 4 能安全輕易地撿起拖鞋 3 需在監督下才能撿起拖鞋 2 無法撿起拖鞋，但可彎腰幾乎可以碰到拖鞋 (2.5-5cm 左右)，且可自己保持平衡 1 無法撿起拖鞋且在嘗試時需要監督 0 無法嘗試或需協助以免失去平衡或跌倒	
10. 站著轉頭向後看。 指令：把頭轉向你的左邊，往你的正後方看。然後向右邊重複一次。測試者可在受試者正後方舉起一物供其注視，以鼓勵其轉頭的動作更流暢。 4 能夠往兩側向後看並且重心轉移的很好 3 只能往一側回頭向後看，往另一側看時重心轉移得較少 2 只能轉頭至側面但能維持平衡 1 轉頭時需要監督 0 需要扶持以防止失去平衡或跌倒	
11. 轉圈走 360 度。 指令：轉一圈走 360 度。停下來。換另一個方向再轉一圈走 360 度。 4 每側皆能夠在 4 秒內安全地轉 360 度 3 在 4 秒內只能安全地往一側轉 360 度 2 能夠安全地轉 360 度但非常緩慢 1 轉圈時需要密切地監督或口頭提醒 0 轉圈時需要協助	
12. 於站姿兩腳交替踩放在階梯或凳子上。 指令： 兩腳交替放在階梯或凳子上，繼續直到兩腳都踏到階梯或凳子四次為止。 4 能夠獨自且安全地站立，並在 20 秒內完成八步 3 能夠獨自站立，但需超過 20 秒始能完成八步 2 可在監督下完成四步而不需要協助 1 在稍微協助下能夠完成兩步以上 0 需要協助以防止跌倒或無法嘗試	
13. 兩腳前後站。 指令：(向受試者示範)將一隻腳放在另一隻腳的正前方。假如您覺	

得無法將一腳放在另一腳正前方，試著把一腳盡量往前踏，讓你的前腳跟超過後腳腳趾。(步伐長度如果超過另一隻腳的長度而且步寬接近受試者的正常步寬，就記為 3 分。) 4 能夠獨自把一腳放在另一腳的正前方並維持 30 秒 3 能夠獨自把一腳放在另一腳前面並維持 30 秒 2 能夠獨自踏出一小步走並維持 30 秒 1 踏步時需要幫忙但可維持 15 秒 0 往前踏或站立時失去平衡	
14. 單腳站。指令： 不要扶東西用單腳站，愈久愈好。 4 能夠獨自把腿抬起超過 10 秒以上 3 能夠獨自把腿抬起並維持 5-10 秒 2 能夠獨自把腿抬起，並維持 3 秒或 3 秒以上 1 能嘗試抬腿少於 3 秒但仍能維持獨自站立 0 無法嘗試或需要協助以防止跌倒	

Appendix V

帕金森病舞蹈調查問卷

ID: ________________ Pre / Post

感謝你同意填寫此問卷 . 如果你不願意回答某個問題，請留空。所有答案將被匿名化，並且你的身份在發表時將受到保護。

我們想問一些關於你如何處理帕金森病的問題。請仔細閱讀每個問題。答案沒有對錯之分，而你的第一個想法通常是最好的答案。

1. 總括來說，你會如何描述你目前的健康狀況？(打勾)

[]優良 []好 []一般 []差

2. 我們知道帕金森病患者的病情往往有很大的波動性。我們關注的是過去一星期，你在表現最差的情況下能夠完成以下甚麼種類的日常活動以及完成的程度？(請在每一行打勾)

	正常	足夠	受到限制	需要幫助	無法完成
行走					
更衣					
用膳					
洗澡					
衞生整潔					
從椅子上站起來					
在床上翻身					
寫作					
說話					
精細操作 例如綁鞋帶，使用電話等					

3. 請對以下每個問題的嚴重程度進行評價，在你過去一星期表現最差的時候。**(**請在每一行打勾**)**

	無	輕度	中度	嚴重的	非常嚴重
震顫					
僵硬					
行動遲緩					
走路時感覺被凍住					
摔倒					
失平衡					
步態出現問題					
駝背					
身體缺乏柔軟度					
疼痛					
異動症(動作及行動失調)					

4. 總括來說，在你做事情時，你覺得有多大的自由或限制？(圈出適當的數字。)

我仍可以做想做的事　　　　　　　　　　　　　　我無法做想做的事

1　　2　　3　　4　　5　　6　　7

5. 請圈出下列的一個數字來描述您目前的帕金森病的階段

0 = 沒有帕金森病的跡象。

1 = 一邊身體有帕金森病的病徵及病狀。

2 = 身體兩側都有帕金森病的病徵及病狀，但沒有損害平衡能力。

3 = 輕度至中度的雙側病徵及病狀；有些姿勢不穩；仍可以獨立自理生活

4 = 嚴重殘疾；但仍可以無障礙行走或站立。

5 = 需要乘坐輪椅。

6. 請指出你對以下項目的肯定程度。(圈出適當的數字。)

你有多確定你能 (1 = 不太能夠; 7 = 非常能夠)

i. 在你的生活中做出一些積極的改變？ 1 2 3 4 5 6 7

ii. 對未來抱有希望？ 1 2 3 4 5 6 7

iii. 喜歡學習新事物？ 1 2 3 4 5 6 7

iv. 有成就感嗎？ 1 2 3 4 5 6 7

v. 培養更多的自信？ 1 2 3 4 5 6 7

vi. 管理你的狀況，以便你能繼續做你喜歡的事情？ 1 2 3 4 5 6 7

vii. 生活中尋找樂趣並結交新朋友？ 1 2 3 4 5 6 7

viii. 與其他帕金森病患者建立社區感？ 1 2 3 4 5 6 7

7. 下面列出的是你在過去一周內可能有的感受。請使用以下量表指出你的感受到這些情緒的頻率

A = 很少或沒有時間（少於1天）

B = 有些時候或有一點時間（1-2天）

C = 偶爾一些的時間（3-4天）

D = 大部分時間（5-7天）。

i. 我覺得很壓抑。 ______

ii. 我很享受生活。 ______

iii. 我感到悲傷。 ______

iv. 我感到高興 ______

v. 我感到孤獨 ______

vi. 我覺得很有動力 ______

8. 使用下面的量表，圈出表示你在多大程度上覺得帕金森病對你生活的以下方面造成了多大的干擾。(圈出適當的數字。)

我的疾病干擾了我: (1 = 非常少; 7 = 非常多)

i. 表達個性的能力 1 2 3 4 5 6 7

ii. 人際關係 1 2 3 4 5 6 7

iii. 幸福的感覺 1 2 3 4 5 6 7

iv. 對未來的計劃 1 2 3 4 5 6 7

v. 獨立意識 1 2 3 4 5 6 7

vi. 自尊心 1 2 3 4 5 6 7

vii. 工作或作出貢獻的能力 1 2 3 4 5 6 7

9. 我目前的生活水平是：（請勾選一項） □ 優良 □ 好 □ 一般 □ 較差

Results from TUGT, 6MWT and gait analysis (mean ± SD)

Items	All groups (N = 58)	Control group (n = 26)	DW group (n = 32)	U	p	Effect Size
TUGT (sec)	10.37 ± 4.56	9.93 ± 1.86	10.73 ± 5.93	371	0.48	0.09
6MWT (m)	462.93 ± 111.90	464.7 ± 106.34	461.48 ± 117.90	-	0.91	0.03
Stride length (cm)	90.14 ± 2.28	90.02 ± 16.36	90.25 ± 18.41	428	0.85	0.02
Step width (cm)	11.89 ± 0.45	11.53 ± 2.79	12.18 ± 3.91	-	0.48	0.19
Cadence (step/min)	101.71 ± 1.78	100.40 ± 12.78	102.76 ± 14.32	-	0.52	0.17
Velocity (m/s)	2.72 ± 0.08	2.71 ± 0.63	2.73 ± 0.56	-	0.9	0.04
Double stance phase (ms)	30.41 ± 0.72	30.69 ± 5.86	30.18 ± 5.31	389	0.67	0.06
Stance phase (ms)	65.37 ± 0.35	65.53 ± 3.03	65.24 ± 2.33	387	0.65	0.06
	65.43 ± 0.47	65.39 ± 3.90	65.47 ± 3.34	-	0.93	0.02
Pre-swing phase (ms)	15.19 ± 0.40	15.50 ± 3.39	14.93 ± 2.76	-	0.48	0.19
	15.08 ± 0.38	15.07 ± 3.08	15.09 ± 2.82	409	0.92	0.01
Swing phase (ms)	34.63 ± 0.35	34.47 ± 3.03	34.76 ± 2.33	445	0.65	0.06
	34.57 ± 0.47	34.61 ± 3.90	34.53 ± 3.34	-	0.93	0.02

TUGT = Time up and go test; 6MWT = 6-minute walk test

Scores from MDS-UPDRS, DPQ and BBS (mean ± SD)

Scores		Total (N = 58)	Control group (n = 26)	DW group (n = 32)	U	p	Effect Size
MDS-UPDRS	Part 1	7.53 ± 5.37	6.42 ± 4.32	8.44 ± 6.01	492.5	0.23	0.16
	Part 2	9.53 ± 7.14	9.77 ± 6.43	9.34 ± 7.77	379	0.56	0.08
	Part 3	21.4 ± 11.55	25.08 ± 11.68	18.41 ± 10.70	266.5	0.02*	0.31
	Part 4	2.91 ± 3.97	3.12 ± 4.45	2.75 ± 3.60	384.5	0.6	0.07
DPQ	Q1	2.64 ± 0.72	2.81 ± 0.69	2.5 ± 0.72	328	0.13	0.2
	Q2+3	39.66 ± 11.52	39.69 ± 5.86	39.63 ± 12.10	420	0.95	0.01
	Q4	2.74 ± 1.25	2.65 ± 1.26	2.81 ± 1.26	445.5	0.63	0.06
	Q5	1.93 ± 1.04	1.96 ± 0.96	1.91 ± 1.12	395.5	0.73	0.05
	Q6	41.16 ± 10.58	40.23 ± 12.35	41.91 ± 9.04	433	0.79	0.03
	Q7 Negative	4.83 ± 2.39	4.5 ± 2.29	5.09 ± 2.48	495.5	0.20	0.17
	Q7 Positive	9.36 ± 2.7	9.27 ± 3.13	9.44 ± 2.34	389	0.67	0.06
	Q8	25.21 ± 10.17	24.46 ± 10.80	25.81 ± 9.76	447	0.63	0.06
	Q9	2.14 ± 0.85	2.31 ± 0.88	2 ± 0.80	340	0.21	0.17
BBS		53.52 ± 3.24	53.35 ± 2.98	53.66 ± 3.48	470	0.39	0.11

*Significant difference between groups ($p \leq 0.05$). DW group = Dance Well group; MDR-UPDRS = Movement Disorder Society Unified Parkinson's Disease Rating Scale; DPQ = Dance for Parkinson's Questionnaire; BBS = Berg Balance Scale, Q7 negative / positive = negative /positive feelings in question 7

Focus group test from Time up and go (TUGT), 6-minute walk test (6MWT) and gait analysis

Items	Pre-test (N = 10)	Post-test (N = 10)	Post-Post test (N = 10)	p	Effect Size (Partial Eta Squared)
TUGT (sec)	10.66 ± 1.77	9.76 ± 1.53	9.02 ± 2.03	0.183	0.346
6MWT (m)	458.41 ± 79.49	477.31 ± 71.58	469.16 ± 94.34	0.379	0.215
Stride length (cm)	90.87 ± 15.72	92.36 ± 16.38	92.51 ± 20.63	0.877	0.032
Step width (cm)	11.20 ± 2.38	11.75 ± 3.01	11.20 ± 2.08	0.329	0.242
Cadence (step/min)	101.30 ± 11.39	101.99 ± 12.19	102.43 ± 10.99	0.814	0.050
Velocity (m/s)	2.72 ± 0.33	2.79 ± 0.46	2.85 ± 0.67	0.644	0.104
Double stance phase (ms)	30.78 ± 5.03	30.29 ± 4.51	30.84 ± 6.51	0.928	0.018
Left Stance phase (ms)	65.32 ± 2.80	65.24 ± 2.13	64.95 ± 3.87	0.863	0.036
Right Stance phase (ms)	65.84 ± 3.86	65.69 ± 2.59	66.52 ± 3.10	0.595	0.122
Left Pre-swing phase (ms)	15.49 ± 2.56	15.13 ± 2.30	15.16 ± 3.00	0.738	0.073
Right Pre-swing phase (ms)	15.11 ± 2.65	14.93 ± 2.27	15.49 ± 3.85	0.798	0.055
Left Swing phase (ms)	34.68 ± 2.80	34.76 ± 2.13	35.05 ± 3.87	0.863	0.036
Right Swing phase (ms)	34.15 ± 3.86	34.31 ± 2.59	33.48 ± 3.10	0.595	0.122

Appendix VIX

Focus group scores from MDS-UPDRS DPQ and BBS (mean ± SD)

Scores		Pre test (N = 10)	Post test (N =10)	Post-post test (N = 10)	p	Effect Size (Kendall 's W)	Pre vs Post (post-hoc)	Post vs Post-post (post-hoc)	Pre vs Post-post (post-hoc)
MDS-UPDRS	Part 1	8.20 ± 5.49	7.70 ± 6.23	5.80 ± 4.87	0.21 4	0.154	-	-	-
	Part 2	7.70 ± 4.50	6.20 ± 3.43	9.40 ± 4.70	0.00 9*	0.466	0.027*	0.341	0.032*
	Part 3	12.70 ± 11.51	14.60 ± 11.56	26.40 ± 9.77	0.00 2*	0.618	0.260	0.047	0.005*
	Part 4	2.90 ± 1.73	1.30 ± 2.16	2.50 ± 2.84	0.03 5*	0.336	0.011*	0.078	0.676
DPQ	Q1	3.00 ± 0.67	2.60 ± 0.70	2.90 ± 0.32	0.32 6	0.112	-	-	-
	Q2+3	32.80 ± 9.02	35.10 ± 11.54	35.80 ± 8.85	0.61 4	0.049	-	-	-
	Q4	2.40 ± 1.51	2.30 ± 0.95	2.90 ± 1.29	0.32 6	0.112	-	-	-
	Q5	1.60 ± 0.97	1.50 ± 0.85	1.50 ± 0.71	0.81 9	0.020	-	-	-
	Q6	43.60 ± 5.34	406.40 ± 6.62	46.20 ± 6.32	0.18 2	0.170	-	-	-
	Q7 Negative feeling count day	3.80 ± 1.03	4.70 ± 2.75	3.30 ± 0.68	0.01 6	0.414	-	-	-
	Q7 Positive feeling count day	10.20 ± 2.7	10.70 ± 1.25	11.10 ± 1.10	0.44 6	0.081	-	-	-
	Q8	23.10 ± 10.31	21.20 ± 11.94	18.30 ± 7.48	0.30 3	0.119	-	-	-
	Q9	2.20 ± 0.79	2.10 ± 0.99	2.30 ± 0.82	0.83 4	0.018	-	-	-
BBS		54.30 ± 1.06	54.80 ± 1.14	54.00 ± 2.45	0.80 9	0.021	-	-	-