

FOR OLDER ADULTS

WHY A DANCE PROGRAMME?

Dance, as a kind of aerobic exercise, is able to significantly improve muscular strength, endurance and balance of older adults by providing adequate exertion (Wu et al., 2021). Dance also promotes cognition through the engagement with movements and music. It provides enjoyment, enhances community engagement and promotes emotional well-being of older adults (Wu et al., 2021). Moreover, the low cost of dance makes dance more appropriate for the older population after retirement. Therefore, dance is one of the most effective and relevant activity for promoting healthy aging among community-dwelling older adults.

Wu, V. X., Chi, Y., Lee, J. K., Goh, H. S., Chen, D. Y. M., Haugan, G., Chao, F. F. T., & Klainin-Yobas, P. (2021). The effect of dance interventions on cognition, neuroplasticity, physical function, depression, and quality of life for older adults with mild cognitive impairment: A systematic review and meta-analysis. *International Journal of Nursing Studies*, 122, 104025. https://doi.org/10.1016/j.ijnurstu.2021.104025

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In Collaboration with

Lions Befrienders



Research Question

This study aims to assess the feasibility and primary effect of the Community Dance Programme (CDP) in enhancing the physical, mental, cognitive and psychosocial health, quality of life and social support among older adults.

Lions Befrienders



Methods

Self-reported questionnaires, obtainment of clinical data, cognitive and physical assessment were used for the quantitative evaluation. Focus group discussions with the older adults and student instructors served as the qualitative aspect of process evaluation.



Participant Demographics

A total of 59 eligible older adults were recruited, with 29 and 30 of them randomly assigned into the intervention and control group respectively. In summary, there were 38 (64.4%) females, 42 (71.2%) Chinese, 57 (96.6%) with secondary education or below, 53 (89.8%) living in 1-2 room HDB flats, 47 (79.7%) ever-married, 50 (84.7%) of them retired. Their median age is 73 years old and they had a median of 2 children.

COMMUNITY DANCE SESSIONS



The CDP applied nature, sports, travel and vacation as the themes of the dance to facilitate a relaxing experience. The CDP was designed by a chief professional dance instructor and conducted by the university student instructors.

The participants in the control cluster continued the usual activities in their AACs and did not participate in the 8-week CDP.



Face to face dance sessions conducted at the 4 AACs



During each dance session, the older adults were split into small groups of 3 to 5 in accordance with social distancing measures. 1 to 2 student instructors were allocated to each group to ensure that each older adult receives adequate guidance and monitoring.

SUMMARY OF KEY PRELIMINARY FINDINGS



QUANTITATIVE FINDINGS General Linear Model (GLM)

An increase in Short Physical Performance Battery (SPPB) score indicates an improvement in participants' balance, lower body muscle strength and mobility.

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Increased SPPB (4.18%)

Significant Increased Inter-generational Communication (11.19%)

Increased Hand Grip (2.79%)

Significant Increased Quality of Life (21.60%)

Increased MoCA (3.48%)

Increased Subjective Happiness (3.02%) Y

QUALITATIVE FINDINGS Thematic Analysis of Focus Groups

1

Promoting physical, cognitive and social health with dance

Optimising physical health with dance movements

Enhancing memory with dance Engaging in social interaction and communication

Enhancing mood and relaxation

2

Imagination is Power: Travelling through Dance

Enjoyment of nature and travelbased dance themes

Reminiscence through dance

3

Future enhancement of the Community Dance Programme

Earlier risk identification & injury prevention over virtual platform

Better guidance for the older adults as beginners in dance

The Montreal Cognitive Assessment (MoCA) is a rapid screening instrument for mild cognitive dysfunction. An increased MoCA score indicates an improvement in participants' cognitive functioning.

INTO THE QUALITATIVE FINDINGS



Promoting physical, cognitive and social health with dance





Optimising physical health with dance movements



Enhancing memory with dance



Engaging in social interaction and communication



The COVID-19 pandemic restricted daily exercise routines of older adults. Through their participation in CDP, participants felt physically active and healthy.

The dance sessions facilitate memory enhancement through serial and systematic recall of dance steps. Student instructors advocated for longer dance sessions to encourage older adults to familiarise and remember the dance steps.

Group-based social interactions between dance participants and student instructors enabled older adults to increase social interaction, thereby minimising the risk of social isolation.

Several older adults reported feeling relaxed, less tense with overall mood being enhanced and uplifted after participating in CDP. Student instructors also felt encouraged by the older adults' enthusiasm in their continued efforts to attempt the dance steps.

"When I first joined the dance programme, I had severe back pain. After the dance sessions, I feel so much better. In the past, I could not bend my knees, but now I am able to bend them... besides these, I have lost some weight too."

Participant B1

"My memory has improved a lot after taking part in the dance sessions. In the past, I am more forgetful... but now I can remember the dance steps. I can even remember the dance routine after a week! Sometimes I also put in the effort to practice the dance steps at home."

Participant B2

"Although communication is not so easy with the instructors as they are young and they think differently, it's very good for them to interact with us. The dance sessions help us to know one another better through our conversations."

Participant B2

"I'm really happy when dancing. I want more of these dance sessions in the future, preferably with a longer duration. I don't mind even if it is held only once a week."



Imagination is Power: Travelling the World and Time through Dance





Enjoyment of nature and travel-based dance themes

The older adults enjoyed participating in the creatively crafted dance sessions and learning nature and travel-based dance movements from the student instructors.

Some older adults felt a sense of accomplishment whilst dancing as they were able to dance like how they used to when they were young. Dance is able to bring back memories of their youth.

"I feel like we all are going to the forest through the dance. When we danced to the Thailand song, I imagined all of us travelling to Thailand. It is good that since we are unable to travel there due to COVID-19, we can imagine that we are overseas through our dance."

Participant B3

"I like the dance sessions a lot, especially when I spin around when dancing, I'm very happy. I still remember when I was younger my legs could do everything in dance and I was very happy. Now, I experience a sense of achievement when I am still able to move. I show others that I can exercise through dance."

Participant B4



Reminiscence through dance



Future enhancement of the Community Dance Programme





Earlier risk identification & injury prevention over virtual platform

Better guidance for the older adults as beginners in dance



Some older adults were not familiar with the online Zoom functions, posing a risk of injury due to incorrect dance mechanics. Student instructors were apprehensive about teaching the dance steps via an online platform as they could not monitor the participants' learning as closely.

The student instructors empathised with older adults that they are beginners in dance. Some participants were unable to follow the dance steps due to the language barrier. Thus, there is a need for the CDP to be translated to various local languages (e.g., Malay, Hindu, Chinese dialects, etc.). Additionally, the virtual platform made communication across different languages more challenging as it is difficult to observe for nonverbal cues over Zoom.

"Face to face sessions are better for learning as we can learn directly and ask questions easily. Zoom is sometimes laggy and it is more chaotic. I see some participants dance the wrong steps through Zoom, but during the face-to-face sessions, everyone can dance the right steps. We also might injure ourselves if we don't understand the steps or see the demonstrations well."

Participant B4

When we teach the older adults, we empathize with them and how they think as a beginner. It is good because it helps us to be in their shoes and consider their feelings. I think that it will be good if there is no language barrier as language barrier can cause a person to feel excluded from the session. I think we can try improve on the language aspect of CDP, perhaps instructors can learn local languages to better facilitate the sessions."

Student Instructor 5

POSITIVE IMPACT OF CDP ON OLDER ADULTS







The older adults' **bodies felt lighter and more flexible** after the dance program. The core exercises and dance choreography helped them to move and stretch their bodies.



Cognitive well-being

CDP helped to train older adults' memory and cognitive capacities. Albeit being aware that one's cognitive abilities may decline over age, they remained optimistic that regular activities such as this dance program can be beneficial in slowing down one's cognitive decline.



Psychosocial well-being

Most of the older adults have expressed that they **felt happier and more relaxed** after every dance session. Dancing serves as an outlet for them to release emotional and physical tension; they feel motivated and look forward to attend each dance session.

Older adults and student instructors also **cultivated intergenerational bonding** with one another over time, fostering deeper understanding between generations and minimising feelings of isolation.



Outcome of CDP

Encourage older adults to live an active life and maximize their social capital (the value derived from positive connections between people) within the community.



Further Research on CDP

With the evidence gathered from this research, CDP could benefit a larger population. The research team is working closely with community partners (Lions Befrienders) to integrate CDP into the existing programs to understand the impact of community dancing on older adults on a more extensive scale.