



東華三院
Tung Wah Group of Hospitals

Research Report on Effectiveness of a Cultural-specific Music Intervention in Managing Agitation among Elderly with Dementia in Hong Kong



In collaboration with:



香港大學行為健康教研中心
Centre on Behavioral Health, HKU

ISBN 978-962-8039-62-3

June, 2016

Table of Contents

Acknowledgment	1
Preface	2
Background	6
Literature review	6
Overview of the study	8
Study objectives	8
Methodology	9
Highlights	10
Research design	10
Participants	10
Procedures	10
The music and movement intervention	12
Measuring instruments	13
Statistical analysis	13
Results	14
Discussion	21
Cultural Appropriateness	23
Successful factors	24
Limitation	25
Recommendation	26
Conclusion & Implication	27
Reference	28
Appendix 1	31
Appendix 2	33
Appendix 3	35
Appendix 4	36
Appendix 5	37
Appendix 6	39
Appendix 7	40
Evaluation	41
Snapshots	43
Special Thanks & Participating Parties	44

Acknowledgement

Music exists everywhere in our daily life. Different rhythms and songs provide people different feelings. Its potential power sometimes is even greater than what we generally expected.

People with dementia suffer from the deterioration of cognitive, psychosocial and daily activity function. Along the disease progress, it is likely that the people with dementia would suffer from communication difficulties, emotional and behavioral problems. In view of rapidly increasing number of elderly with dementia in Hong Kong, approximately 45% of our serving elderly in aged homes of Tung Wah Group of Hospitals are suffering from dementia. There are growing needs for helping these elderly by the use of other alternatives.

In this study, the specially designed music and movement group was conducted and aimed to relief the behavioral and psychological symptoms as well as improve the mood of elderly with dementia in residential homes. Participants enjoyed the culturally relevant old songs under the guidance by the facilitator. They were encouraged to make free movement and expression during the group. It was grateful to notice that the study resulted in significant improvement of mood and behavioral problems of frail elderly with dementia. Family members and staff were also gratified by the power of music as it was a non-invasive and unharmful alternative to be implemented in daily life. Music also provided the pleasant, relaxing and enjoyable opportunities for the elderly to engage.

We would like to give our heartfelt thanks to the Social Welfare Development Fund (Phase II), Social Welfare Department in supporting us to explore new initiatives in applying arts in dementia services. Besides, we would like to express our gratitude for the unflinching support of Dr. Rainbow Ho and her dedicated team of Centre on Behavioral Health, the University of Hong Kong, the research participants and their family members as well as the concerted efforts of all our fellow colleagues to make this study possible.

It was believed that the amazing and potential effect of music could be further promoted and effectively applied in the dementia services in order to benefit more elderly with dementia.

*Elderly Services Section
Community Services Division,
Tung Wah Group of Hospitals*

Preface

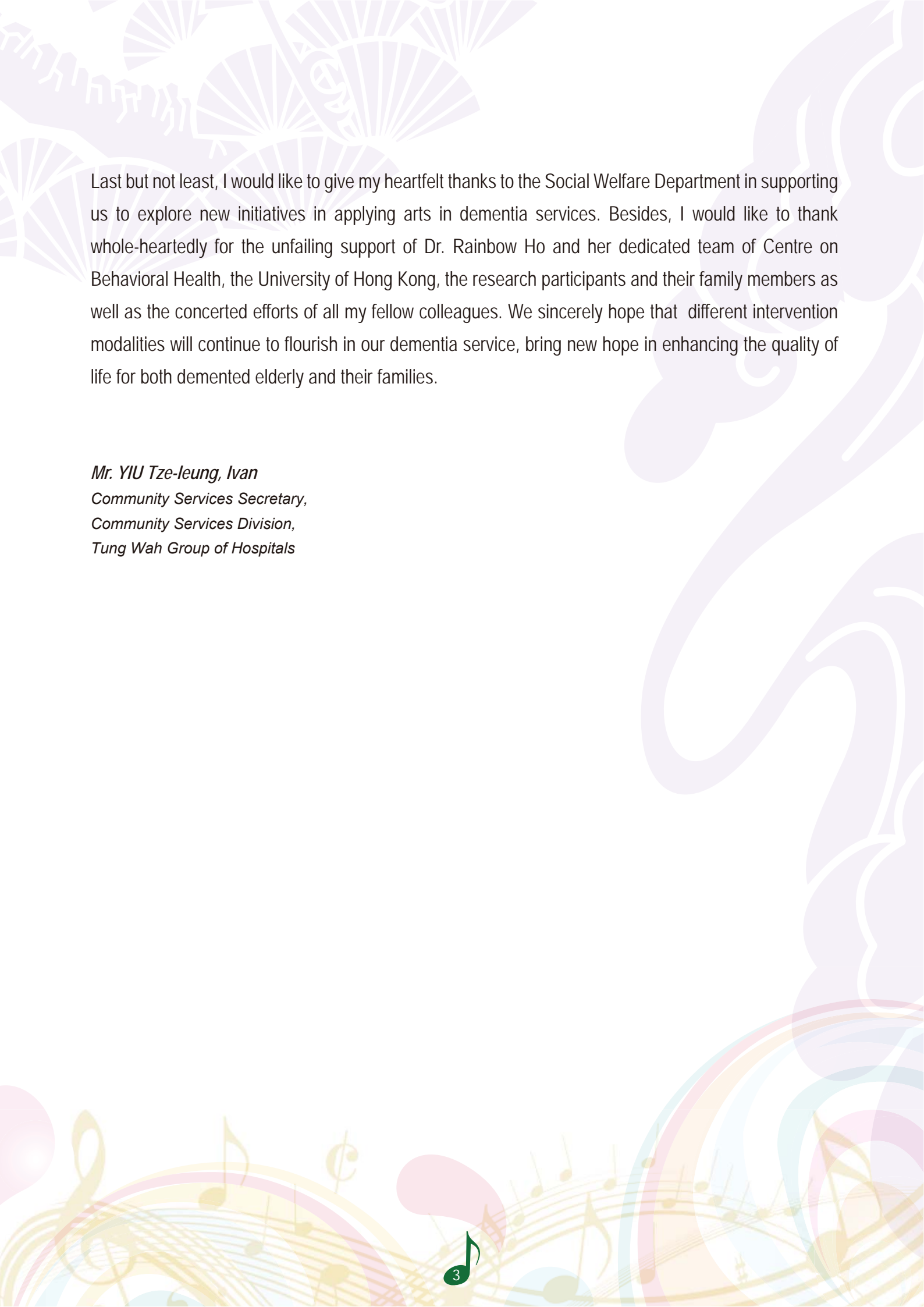
Research has shown that the percentage of suffering from dementia for those aged 65 or above and 85 or above is around 10% and 30% respectively in Hong Kong. Undoubtedly, the higher the age implied the higher the prevalence of dementia. Along with the rapid population ageing, the need of discovering effective ways of caring for elderly with dementia is essential and in great urgency.

Use of arts helps elderly to express their inner thoughts and feelings often when verbalization is difficult. Different forms of art activities can improve the quality of life for elderly through promoting individuality and positive emotions. In addition to the cognitive function decline, dementia is often accompanied by changes in emotions and behavioral disturbance. As the disease progresses, psychological and behavioral disorders become apparent. It has been well documented that music has the ability to evoke physical and psychological responses and might be used as an alternative method of communication when the cognitive ability to receive and express language has gone. Although use of music in dementia care is popular in Western countries, there is little evidence-based practice locally in correspond.

Therefore, a cultural relevant art based program, using music as media, was proposed by Elderly Services Section, Tung Wah Group of Hospitals in caring the elderly with dementia. From 2014/2015 to 2015/2016, with funding support from the Social Welfare Development Fund (Phase II), the Elderly Services Section was pleased to collaborate with the Centre on Behavioral Health of the University of Hong Kong in conducting a study on evaluating the effectiveness of the use of music and movement in managing psychological needs and behavioral disorders of people with dementia.

Briefings were conducted to equip our staff and trainees with the skills and knowledge of the music intervention prior to the start of the study. The intervention focused on cultural appropriateness of the choice of music, and was designed by a group of art therapists and professionals with the reference of the musical preferences of local elders.

We were pleased to notice that the cultural-specific music intervention was found to be significantly effective in managing behavioral and psychological behaviors among the participants in our residential homes, especially in reducing agitation and dysphoria. A number of noticeable positive changes of behaviors of the participants were reported together with positive feedback from the family members and staff.



Last but not least, I would like to give my heartfelt thanks to the Social Welfare Department in supporting us to explore new initiatives in applying arts in dementia services. Besides, I would like to thank whole-heartedly for the unfailing support of Dr. Rainbow Ho and her dedicated team of Centre on Behavioral Health, the University of Hong Kong, the research participants and their family members as well as the concerted efforts of all my fellow colleagues. We sincerely hope that different intervention modalities will continue to flourish in our dementia service, bring new hope in enhancing the quality of life for both demented elderly and their families.

Mr. YIU Tze-leung, Ivan

*Community Services Secretary,
Community Services Division,
Tung Wah Group of Hospitals*

Preface

While the decline of cognitive abilities is the hallmark of dementia syndromes, there is a wide spectrum of behavioral and psychological symptoms (BPSD), which include verbal and physical aggression, agitation, psychotic symptoms (hallucinations and delusions), sleep disturbances, oppositional behavior and wandering. These BPSD symptoms reflect a declined wellbeing and quality of life of the demented elderly, and places considerable amount of burden on the caregivers.

Existing treatments for BPSD in dementia mainly focused on pharmacological approach or physical constraints. Medication used to reduce agitation has considerable side effects such as accelerated cognitive decline, cardiac effects, drowsiness and high-risk for falls (Ho et al., 2011). Consequently, relying on medication is likely to result in increased dependency (Dewing, 2003). On the other hand, the uses of physical restraints are undoubtedly accompanied by elderly feelings of shame, loss of dignity and self-respect. Hence, it is increasingly recognized that non-pharmacological treatments, such as art and music therapy, should be pursued in managing BPSD in dementia (Douglas, James, & Ballard, 2004).

This study examined the effectiveness of the use of a culture-specific music intervention in managing agitated behaviors among elderly with dementia in Hong Kong residential homes. The intervention emphasized cultural appropriateness of the choice of music, and was designed by a group of experienced Registered Dance-movement Therapist, Expressive Arts Therapist, Music Therapist, and Art Psychotherapist based on the musical tastes of local elders. Before the start of the intervention, a staff training workshop was provided to the staff at the elderly homes so as to equip them with the knowledge and skills in delivering music intervention in residential home settings. Besides, a pilot trial was conducted to serve as a feedback for the modification of the intervention as well as the assessment tools.

In the main study, 73 recruited elderly were divided into the intervention and the control groups. Elderly in the intervention group participated in the music intervention twice per week for 8 weeks, while those in the control group received their usual care. During the intervention, participants were encouraged to make free movement in response to the content or the rhythm while listening to the music. They were also encouraged to share their feelings and thoughts about the music. Throughout the study, the same Expressive Arts Therapist Trainee conducted the intervention and a social worker from TWGHs was also there to facilitate the intervention. This collaboration between the Expressive Arts Therapy Trainees

and the social workers in the residential homes does not only allow the sessions being conducted smoothly but also help to promote adherence to the intervention protocol.

Results of the present study are promising, in which significant improvements were found in participants' levels of agitation and aberrant motor behavior. Within group comparisons also revealed that participants in the intervention group reported significant decreases in agitation, and dysphoria, as well as increase in subjective mood, whereas no such differences were found in the control group.

This study is the first-of-its-kind to specifically design a localized music and rhythmic movement intervention that would fit into the elderly care system in Hong Kong and to address the musical taste of the local elders. It demonstrated that this cultural-specific music and movement intervention was effective in managing BPSD symptoms among elderly with dementia. This non-pharmacological intervention is simple, easy-to-deliver, and produces no side effects. Elderly residential homes could consider adopting this intervention as an initial strategy for the management of agitated behaviors before more invasive treatments to be used.

Dr. HO Tin Hung, Rainbow

Principal Investigator

Director, Centre on Behavioral Health

Honorary Director, Centre on Behavioral Health within the Faculty of Social Sciences

Program Director, MSocSc in Behavioral Health

Program Director, Master of Expressive Arts Therapy

Honorary Research Fellow

Associate Professor

Background

Literature review - Dementia

Definition of dementia

Dementia is a progressive disease, demented elders suffered from the disease gradually deteriorate in daily functioning such as memory, comprehension, language, judgement as well as exhibit emotional and behavioral problems.

Global and local prevalence

The World Health Organization estimated that the number of people living with dementia is currently 35.6 million and this number will be doubled by 2030 and more than triple by 2050 (World Health Organization, 2012). With an ageing population and an increasing life expectancy, Hong Kong is no exception and is already seeing a steady rise in the rate of dementia among its older population. A study revealed that in the group of aged over 85, 1 out of 3 elders living with dementia (Yu et al., 2012).

Symptoms of Dementia (BPSD)

People with dementia often suffer from symptoms such as memory loss, personality and mood change, and increasing difficulties with tasks and activities that require organization and planning, etc. While the decline of cognitive abilities is the hallmark of dementia syndromes, there is a wide spectrum of behavioral and psychological symptoms of dementia (BPSD), which include verbal and physical aggression, agitation, psychotic symptoms (hallucinations and delusions), sleep disturbances, oppositional behavior and wandering. These BPSD symptoms reflect a decreased wellbeing and quality of life of the demented elders, and places considerable amount of burden on the caregivers, and thus should be not overlooked.

Treatment for BPSD

Existing treatments for BPSD in dementia mainly focused on pharmacological approach or physical constraints, nevertheless these treatments may cause negative effects. For instance, medication used to reduce agitation has considerable side effects such as accelerated cognitive decline, cardiac effects, drowsiness and high-risk for falls (Ho et al., 2011). Consequently, relying on medication alone will not lead to long-term benefits but more likely to result in increased dependency (Dewing, 2003). On the other hand, the uses of physical restraints are undoubtedly accompanied by elders' feelings of shame, loss of dignity and self-respect. Hence, it is increasingly recognized that non-pharmacological treatments should be pursued in managing BPSD in dementia (Douglas, James, & Ballard, 2004).

Music Therapy

Definition and types

Music therapy is a type of non-pharmacological treatment. Therapists systematically control the use of sounds, tones and movements to achieve the goals of the therapy (Svansdottir & Snaedal, 2006). Therapeutic music intervention can be broadly defined as Active or Passive music therapy (Pacchetti et al., 2000). While active music therapy engages both the therapist and the participant in the production or experience of music, passive music therapy is simply listening to selected music or calming music at a state of rest to induce mental relaxation.

Music therapy and dementia

Music therapy has been widely used for the elderly population to reduce agitation and behavioral symptoms, improve memory, mood and social interaction (Sherratt, Thornton, & Hatton, 2004). Previous studies documented positive outcomes of the use of music in managing aggressive behaviors in elderly with dementia. For instance, Chang, Huang, Lin, and Lin (2010) found that music significantly reduced physical and verbal aggressive behaviors among demented elderly. Another study also revealed that a researcher-composed music had beneficial effect on decreasing agitated behavior such as physical non-aggressive, physical aggressive, verbal non-aggressive and verbal aggressive behaviors among demented nursing home residents (Ho et al., 2011). In a recently published meta-analysis, Vasionytė and Madison (2013) confirmed the effectiveness of music intervention for elderly with dementia. In particular, they compared different types of musical approaches and suggested four potential factors for an effective program, which include: passive listening, use of recorded music, use of music selected by a therapist, and group intervention. Although classical or relaxation music has been recommended by the researcher in compare to popular or native music, another study has suggested otherwise. Gerdner (2000) investigated the effectiveness of preferred music versus classical relaxation music and concluded that the former is more effective in reducing agitation among elderly with Alzheimer's Disease. Studies on the use of preferred music largely support its beneficial outcome in attenuating agitated behaviors in older people with dementia (Sung & Chang, 2005).

People with dementia are especially susceptible to unfamiliar environment which may then result in negative psychological outcomes such as anxiety and agitation (Mirotznik & Ruskin, 1985), by introducing sense of familiarity, such as the use of preferred music, into a new environment or maximizing familiarity in an existing environment can enhance their functional abilities (Son, Therrien, & Whall, 2002; Sung, 2006). Preferred music also carries personalized meaning for the listener, and



research showed that, such meaning tends to increase with age (McCullough-Brabson, 1981). As such, preferred music has the capacity to evoke pleasant and significant memories for the elderly. The familiar tune makes music accessible stimuli even for persons with deteriorated verbal functioning (Gerdner & Schoenfelder, 2010). When used in group setting, music can elicit common experience among members, facilitate sharing and interaction, and promote group cohesion (Lehtonen, 2002). Under the framework of passive music therapy, certain engagement activities, such as the use of familiar group singing (Lesta & Petocz, 2006) and percussion instruments with familiar music (Sung, Lee, Li, & Watson, 2012) have been found useful in managing members' emotional and behavioral difficulties when included as part of the intervention.

State-of-the-art

Whilst the use of musical intervention for elderly with dementia appears to be positive and encouraging, the studies reviewed were conducted mostly in the Western or in Taiwan. Given that musical preferences are biased toward culturally familiar musical traditions, and that people tend to prefer and remember music from their own culture tradition (Soley & Hannon, 2010). And as Raglio et al. (2012) pointed out in their review of music and dementia, "The preferential use of MT (Music Therapy) to make the treatment more tailored to meet the patients' needs, and to improve BPSD and communicative skills in particular in moderate-severe dementia". This highlights the need to identify culturally appreciated music suitable for local Hong Kong elderly with dementia so as to maximize the positive effects of music intervention in managing BPSD.

Overview of the study

This study aimed to evaluate the effectiveness of the use of music and movement in managing BPSD, especially agitated behaviors among the elderly with dementia. Project objectives, design, and structure are outlined as follows:

Study objectives

- *To explore the use of music and movement as potential alternatives to pharmaceutical or physical restraints in the care of elderly with dementia.*
- *To understand the impact of the use of music and movement on alleviating agitation states of people with dementia.*
- *To equip staffs of the TWGHs with the skills in implementing music and movement intervention so as to ensure sustainable intervention impacts to elderly with dementia in residential care homes and beyond.*

Methodology

The study composed of three components:

(1) Staff training workshop; (2) Tailor-made music and movement intervention and (3) Evaluation of the effectiveness of the music and movement intervention.

(1) Staff training workshop

A training workshop was designed and delivered by registered arts therapists to equip the expressive arts therapy trainees and the staff at the elderly homes with the knowledge of music intervention as well as the skills and techniques in leading such intervention. The training workshop was delivered one month before the start of the intervention, target audiences of the workshop were the Social Workers and Care Workers from the elderly homes under the TWGHs and the trainee expressive arts therapists from HKU. In total, 20 people (16 staff from TWGHs and 4 trainees) attended the training workshop. During the workshop, the trainers provided details about the background information and theoretical framework of the intervention protocol as well as its research procedure and arrangement. The trainers also demonstrated to the attendees the techniques on leading the intervention. In addition, attendees were given the chance to get hands-on experiences leading the group under the supervision and guidance of the trainers.

(2) Music and movement intervention

A passive music and movement intervention was designed specifically for the elderly who are living in the TWGHs residential elderly homes. The intervention was developed by a consultation team which is a group of experienced therapists including Registered Dance-Movement Therapist, Registered Expressive Arts Therapist and Registered Art Psychotherapist. [For intervention details, refer to the Chapter of Highlights.]

(3) Evaluation of intervention

The research component included in this study aimed to evaluate the effectiveness of the designed intervention in alleviating agitated behaviors as well as improving their mood among the elderly with dementia.

Highlights

Research design

A controlled pretest-posttest design was adopted for the intervention evaluation. Participants were divided into two groups: the intervention group and the control group. While participants in the intervention group were listening to music and engaged in some simple motor movements, participants in the control group maintained their usual activities and were avoided to participate in music related activities during the study period.

Participants

Elderly who are aged 65 or above, diagnosed with dementia, have no severe hearing impairment, have no recent changes in types or dosages in medication and are able to communicate and follow simple instructions were invited to participate in the study. Participants were recruited from 10 different elderly homes under the TWGHs. Informed consent was obtained from participants or their guardians (Appendix 1 and 2), the study was approved by the university ethical review board.

Using elderly home as a unit, recruited participants were then divided into the intervention and control group based on the elderly home they belong to. Only those who have attended at least 80% of the sessions were included in later analysis.

Procedures

Pilot trial

Before the start of the intervention, a pilot trial was conducted to serve as a feedback for the modification of the intervention as well as the assessment tools.

In the trial, five participants were recruited to participate in a segment (i.e. two sessions) of the music and movement intervention, each session lasted for about 30 minutes during the afternoon, two times a week. The music and songs used were chosen by the consultation team, composed of classical relaxation music, English songs and Cantonese pop songs in the 50s - 70s (Appendix 3). Responses were noted and feedback were obtained from the elderly about their preference and familiarity of the songs as well as their activity levels.

Besides, the occupational therapist in the elderly home also completed a questionnaire designed to measure the mood as well as the frequency and severity of the agitated behaviors of the participating elderly. The occupational therapist then provided feedback on the ease of use and clarity of the questionnaire.

Main study

After obtaining feedback from the elderly and the occupational therapist, a modified song list (Appendix 4) and questionnaire were produced (Appendix 5 and 6).

In the main study, participants in the intervention group participated in 16 sessions of the music and movement intervention, each lasting for 30 minutes, two times a week for 8 weeks. Throughout the study, the same Expressive Arts Therapist Trainee conducted the intervention and a Social Worker from the TWGHs was also there to facilitate the intervention. Participants in the control group had no change in their daily activities or usual care. Participants in both the intervention group and the control group were rated every week.

The music and movement intervention

Multifaceted implementation strategies have been recommended to promote change in practice and adherence to music protocol of an intervention (Sung, Chang, & Abbey, 2008). In light of this, interactive education, education materials and on-site supervision serve as the backbone of our intervention strategy. The music and movement intervention was designed based on the recommendation by Vasionytė and Madison (2013), with culturally appropriate modifications based on the feedback received in the pilot study. Each group consisted of 8 members. Sessions were held in an enclosed room space, and the participants and the facilitators were seated in a circle. Music was recorded on CD and was played using a CD-player. The 30-minute intervention began with a check-in to address the purpose of the group, the time and date, etc. That was followed by a breathing exercise with soft background music as a warm up. The main part consisted of four Cantonese pop songs from the 50s – 70s and an extract of a Chinese opera song. The first song served as the hello song, during which the facilitators would greet and engage each group member individually, and would lead them to perform simple hand movement exercises. While listening to the music, participants were encouraged to continue to make free movements in response to the content or the rhythm of the music. Objects such as small shakers and an artificial flower were used to enhance active engagement and to facilitate the multi-sensational quality of the experience. Participants may also choose to sing along with the music if they felt comfortable doing so. Although encouragement is given, participants were given the freedom to engage or to move as much as they could do or felt like to. A brief pause was introduced in between each piece of music, during which the facilitator would support the participants to share their feelings, thoughts and ideas about the song they just heard. Towards the end, the participants would perform another breathing exercise supported by relaxation background music, after that a goodbye song would be played, and the participants would be reminded of the time and date of the next session before they leave the space (Appendix 7).

Two song lists were used alternatively throughout the 16 sessions. While keeping the two relaxation music, the hello song and the goodbye song consistent, the two lists differed in the four songs in the main part. The variations were matched in style, theme and length of the songs. The minor difference in the main part helped to keep the members enthralled and excited in the process, and allowed them to distinguish between the two days of the week that the sessions were held depending on the song list used.

Measuring instruments

Neuropsychiatric Inventory– Nursing Home version (NPI-NH): The agitation, dysphoria, irritability and aberrant motor activity subscales obtained from the Chinese version of the NPI-NH was used to measure behavioral and psychological problems of the elderly. Frequency and severity of the problematic behaviors were recorded using a 4 point Likert scale (1 = rarely, 4= very often) and 3 point Likert scale (1 = mild, 3 = severe) respectively. This inventory has been validated in a Hong Kong Chinese sample of dementia outpatients, and has obtained good reliability and validity.

Mood: The Visual Analog Mood Scale (VAMS) was developed for use in neurologically impaired patients, such as stroke or dementia. It involves a 100-mm horizontal line with a simple, line-drawn face depicting happy on the left end of the line and a face depicting sad on the right end of the line. Participants were instructed to indicate by gesture through the horizontal line to show how they are currently feeling, resulting in a possible range of 0-100. The scale has been used in neurologically impaired patients, healthy adults and also Chinese patients.

Other demographic information: Demographic data were collected from resident record, including age, gender, education level, recent Mini-mental State Examination (MMSE) score, length of residency, medication, and other medical diagnoses, etc.

Statistical analysis

Descriptive statistics were used to examine participants' demographic characteristics. Repeated Measures ANOVAs were used to compare scores among different time points between the intervention and the control groups.

Results

Sample characteristics

A total number of 73 elderly with dementia participated in the current study. As shown in Table 1, among the participants, 69.9% (n = 51) were female while 30.1% (n = 22) were male. The mean age of the participants was 85.29 years old (SD = 7.04). Among the participants, 39.7% had never received education, 24.7% completed 1-2 years of education, one third (34.2%) had completed at least 3 years of education. Participants reported to have stayed in the residential homes for a mean of 4.4 years (SD = 4.39). Besides, participants reported a mean MMSE score of 13.02 (SD = 6.03), indicating cognitive impairment among the participants was quite severe. On additional note, participants in the intervention group reported to have stayed at the residential care homes for a longer period of time (M = 5.4 years, SD = 4.65) as compared to the control group (M = 3.18 years, SD = 3.50) ($t = -2.26, p < 0.05$).

Table 1.

Demographics of participants

	Total (N=73)	Control (n=33)	Intervention (n=40)	χ^2/t -value	p
Gender, N (%)				.001	.978
Female	51 (69.9)	23 (69.7)	28 (70.0)		
Male	22 (30.1)	10 (30.3)	12 (30.0)		
Age, years, Mean (SD)	85.29 (7.04)	85.70 (7.03)	84.95 (7.11)	.449	.655
Education Level, N (%)				2.36	.307
None	29 (39.7)	12 (37.5)	17 (42.5)		
1-2 years	18 (24.7)	6 (18.8)	12 (30.0)		
3 years or above	25 (34.2)	14 (43.8)	11 (27.5)		
Length of Stay, years, Mean (SD)	4.40 (4.29)	3.18 (3.50)	5.40 (4.65)	-2.26	.027
MMSE Score, Mean (SD)	13.02 (6.03)	12.18 (6.19)	13.85 (5.84)	-1.12	.265

Note. Continuous variables were compared using independent two-tailed t-test; categorical variable were compared using chi-square. Missing cases were excluded.

The intervention group

To understand whether there were improvements in behavioral and psychological symptoms as well as subjective mood among the elderly, changes in NPI-NH and VAMS scores were explored.

As illustrated in Table 2, trend decreases in mean scores were found in the intervention group. Mean scores for Agitation decreased from 3.38 (SD= 3.67) to 1.45 (SD=2.01); Aberrant Motor Behavior from 2.88 (SD= 3.45) to 2.21 (SD= 2.57); Irritability from 2.45 (SD= 2.71) to 1.76 (SD= 1.87); and Dysphoria from 2.23 (SD= 2.92) to 1.24 (SD= 1.75). VAMS score also decreased from a mean of 42.75 (SD= 16.64) to 36.58 (SD= 11.69, Table 3).

Table 2.
Changes in NPI-NH from T0-T8 (Intervention Group)

	N	Agitation Mean (SD)	Aberrant Motor Behavior Mean (SD)	Irritability Mean (SD)	Dysphoria Mean (SD)
T0	40	3.38 (3.67)	2.88 (3.45)	2.45 (2.71)	2.23 (2.92)
T1	39	2.72 (3.39)	2.79 (3.11)	2.54 (2.85)	1.82 (2.84)
T2	38	2.13 (2.96)	2.97 (3.35)	1.97 (2.4)	1.63 (2.87)
T3	38	2.45 (3.55)	1.95 (3.25)	2.08 (2.92)	1.37 (2.21)
T4	39	2.05 (2.98)	2.67 (2.81)	1.79 (2.18)	1.46 (1.97)
T5	38	1.55 (2.25)	2.32 (2.78)	1.29 (1.61)	1.08 (1.79)
T6	38	1.37 (2.02)	1.55 (2.31)	0.84 (1.41)	1.00 (1.68)
T7	36	1.19 (1.86)	1.58 (2.12)	1.25 (1.68)	0.97 (1.72)
T8	38	1.45 (2.01)	2.21 (2.57)	1.76 (1.87)	1.24 (1.75)

Table 3.
Change in VAMS from T0-T8 (Intervention Group)

	N	Mean (SD)
T0	40	42.75 (16.64)
T1	39	39.74 (14.60)
T2	38	35.79 (15.36)
T3	38	36.84 (16.78)
T4	39	34.87 (14.12)
T5	38	33.68 (13.84)
T6	38	35.79 (14.45)
T7	37	34.05 (14.43)
T8	38	36.58 (11.69)

In addition to investigating the trend, changes in NPI-NH and VAMS scores across milestone time points (T0, T4, and T8) in the intervention group were tested using Repeated Measures ANOVA. For NPI-NH, a main effect of time [$F(2,72) = 12.66, p < 0.01, \text{partial } \eta^2 = 0.14$] was yielded, suggesting that there was a significant decrease in behavioral and psychological symptoms among

the elderly with dementia from T0 – T8 (Figure 1). A significant main effect of time was also found in VAMS scores [$F(1.70, 61.28) = 5.89, p < 0.01$] which indicated that elderly reported better subjective mood from at T8 as compared to baseline (Figure 2). Paired T-tests were also conducted to examine the differences between T0-T4 and T4-T8 respectively. Significant differences in were found in agitation ($t = 3.20, p < 0.01$), irritability ($t = 2.07, p < 0.05$) and dysphoria ($t = 2.66, p < 0.01$) from T0 – T4, but not T4-T8. The differences in aberrant motor behaviors failed to reach a statistically significant level.

Figure 1.
Changes in NPI-NH subscale scores across time (Intervention Group)

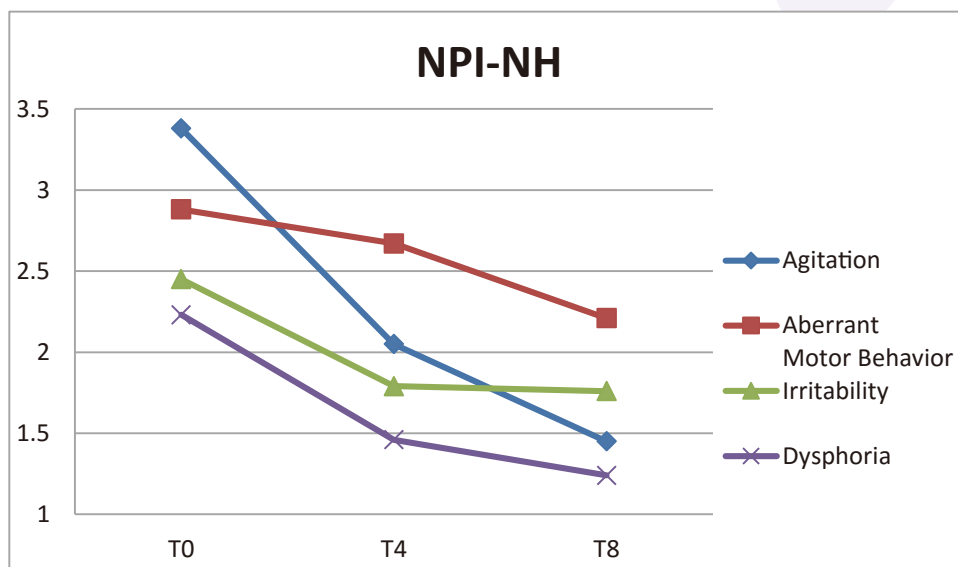
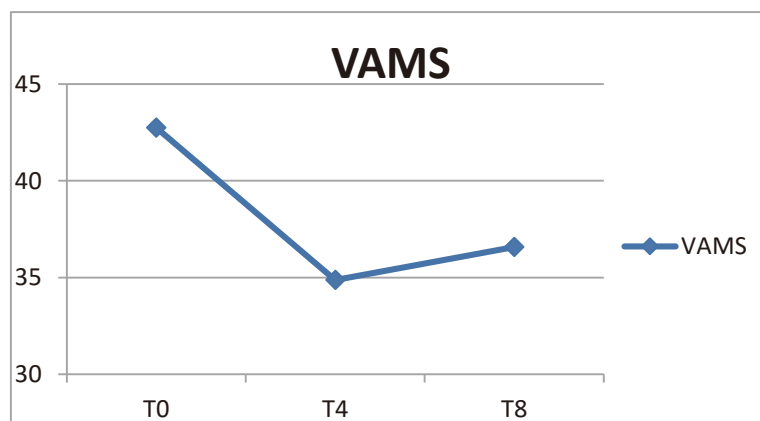


Figure 2.
Changes in VAMS scores across time (Intervention Group)



The control group

Improvements in behavioral and psychological symptoms and subjective mood among elderly in the control group were also assessed. As shown in Table 4, fluctuations of scores could be seen across time. Mean scores for Agitation decreased from 2.06 (SD= 3.28) to 1.77 (SD= 2.64); Aberrant Motor Behavior increased from 1.42 (SD= 1.84) to 2.87 (SD= 2.91); Irritability increased from 1.67 (SD= 2.53) to 1.87 (SD= 2.65); and Dysphoria increased from 0.45 (SD= 1.28) to 0.57 (SD= 1.07). VAMS score decreased from a mean of 40 (SD= 18.37) to 39.33 (SD= 15.3; Table 5).

Table 4.
Changes in NPI-NH from T0-T8 (Control Group)

	N	Agitation Mean (SD)	Aberrant Motor Behavior Mean (SD)	Irritability Mean (SD)	Dysphoria Mean (SD)
T0	33	2.06 (3.28)	1.42 (1.84)	1.67 (2.53)	0.45 (1.28)
T1	33	2.09 (3.21)	3.91 (3.66)	2.45 (3.23)	1.09 (2.72)
T2	33	1.88 (2.43)	2.48 (3.04)	1.76 (2.31)	0.27 (0.76)
T3	32	1.63 (2.15)	1.16 (1.94)	1.50 (2.18)	0.59 (1.41)
T4	31	1.68 (2.47)	2.84 (3.1)	1.87 (2.94)	0.19 (0.75)
T5	30	2.03 (3.2)	3.13 (3.12)	1.90 (3.01)	0.33 (1.15)
T6	30	2.07 (2.89)	2.97 (2.81)	1.07 (2.72)	0.40 (1.16)
T7	30	1.93 (3.17)	3.27 (2.91)	1.40 (2.16)	0.30 (1.12)
T8	30	1.77 (2.64)	2.87 (2.91)	1.87 (2.65)	0.57 (1.07)

Table 5.
Change in VAMS from T0-T8 (Control Group)

	N	Mean (SD)
T0	33	40.00 (18.37)
T1	33	38.79 (18.83)
T2	33	40.61 (18.19)
T3	32	40.31 (12.82)
T4	31	35.16 (20.96)
T5	30	36.33 (17.90)
T6	30	34.67 (18.71)
T7	30	35.67 (21.76)
T8	30	39.33 (15.30)

Changes in NPI-NH and VAMS scores across milestone time points (T0, T4, and T8) in the control group were tested using Repeated Measure ANOVA. For both the NPI-NH and VAMS, no significant main effects of time were found, suggesting that elderly in the control group did not show improvements in behavioral and psychological symptoms nor in subjective mood at T8 as compared to T0.

Comparison between intervention group and control group

Mixed ANOVA test was conducted to compare scores on NPI-NH and VAMS between the intervention group and the control group across the three milestone time points (T0, T4, and T8).

Significant interaction effects between groups and time were found in the agitation [$F(2, 64) = 3.31, p < 0.01$, partial eta square = 0.06] and aberrant motor behavior subscales [$F(2, 64) = 3.22, p < 0.05$, partial eta square = 0.07], suggesting that scores of the intervention group and control group changed differentially across time (Figure 3 & Figure 4). However, no significant interaction effects were found in irritability [$F(2, 64) = 1.06, p > 0.01$], dysphoria [$F(2, 64) = 2.75, p > 0.01$], and subjective mood [$F(2, 64) = 1.26, p > 0.01$] (Figure 5 to Figure 7).

Figure 3.

Changes in Agitation scores across time (Intervention and Control Group)

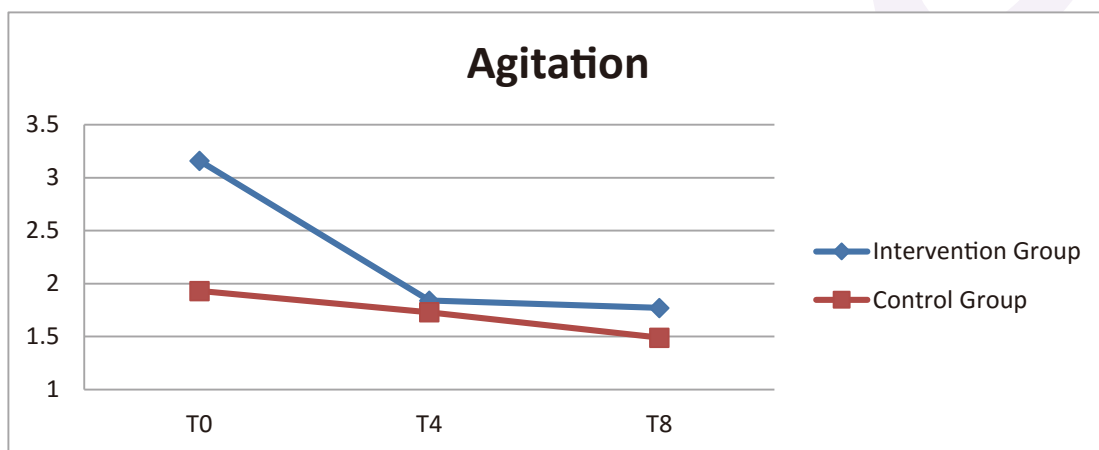


Figure 4.

Changes in Aberrant Motor Behavior scores across time (Intervention and Control Group)

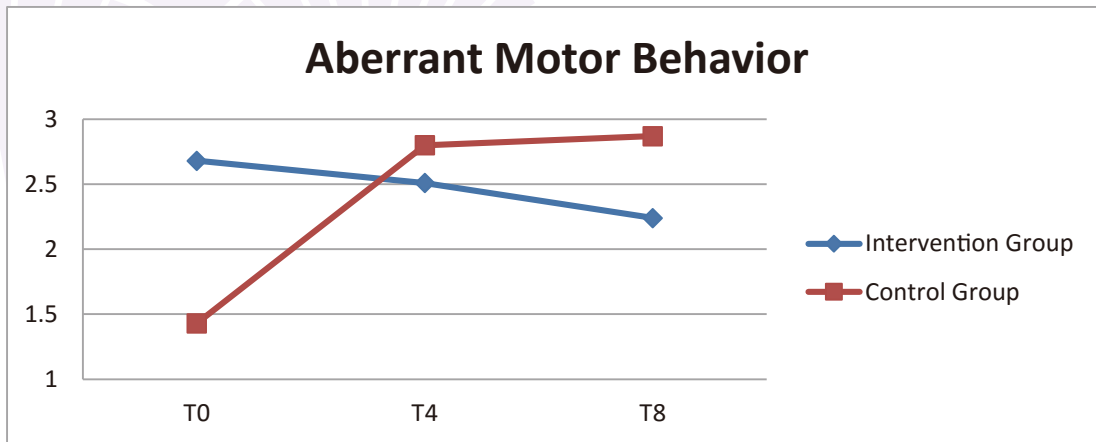


Figure 5.

Changes in Irritability scores across time (Intervention and Control Group)

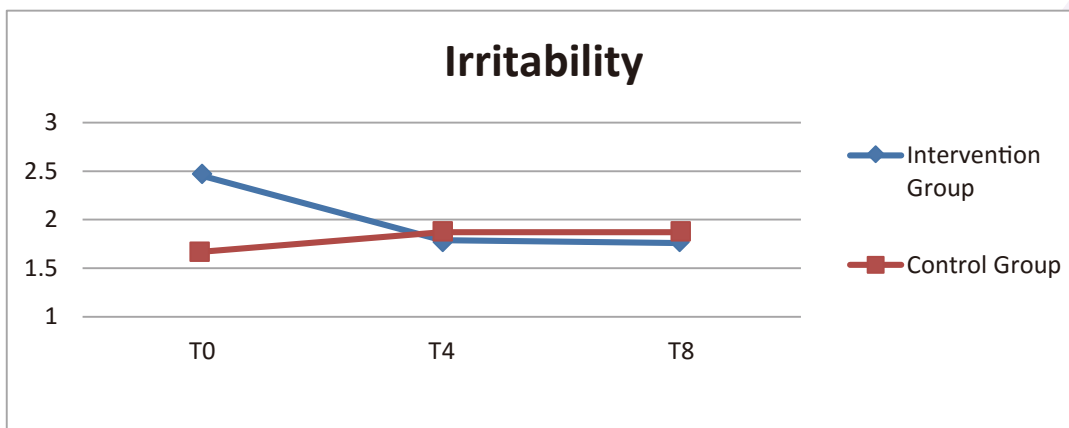


Figure 6.

Changes in Dysphoria scores across time (Intervention and Control Group)

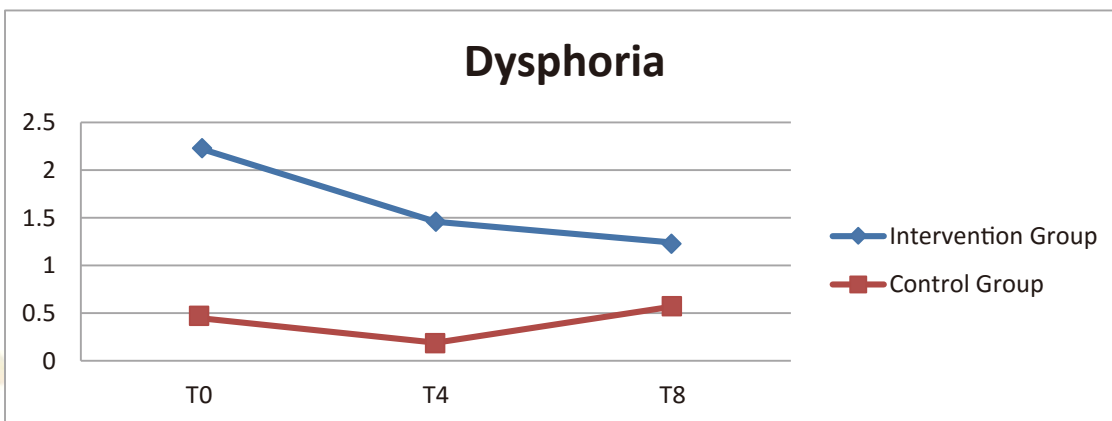
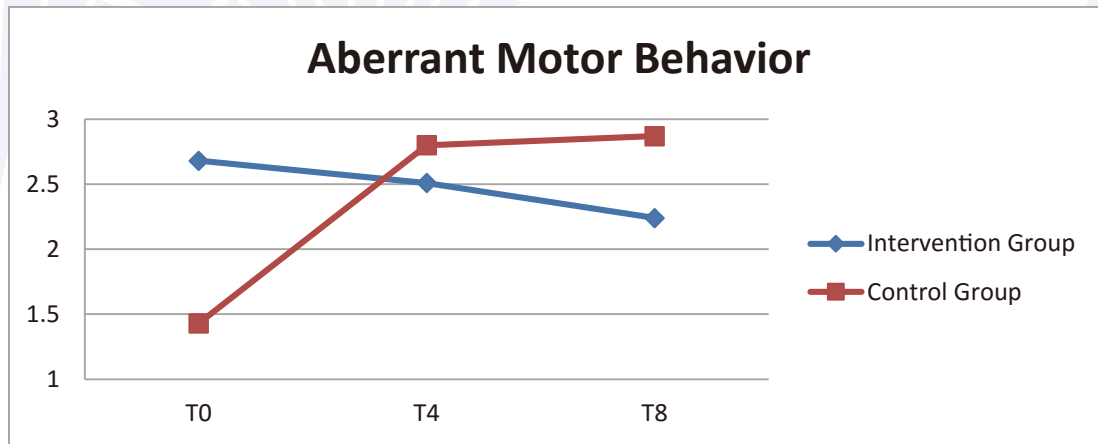


Figure 7.

Changes in VAMS scores across time (Intervention and Control Group)



Discussion

Our study aims to develop a culturally specific music intervention for elderly with dementia in Hong Kong. The passive music intervention was designed to target old people with moderate level of cognitive impairment and was conducted by an Expressive Arts Therapy Trainee and a Social Worker from the residential home for 16 sessions over 8 weeks. Mood, and Behavioral and Psychological Symptoms of Dementia were recorded as measures of the intervention outcomes. Results of the present study suggested that the music and movement intervention was effective in managing behavioral and psychological behaviors among elderly with dementia, especially in reducing agitation and dysphoria. These differences were not found in the control group. Significant interaction effect was also noted in agitation and aberrant motor behavior, which indicates that the intervention group improves more significantly in these two aspects compare to the control group. Overall, this result is in line with previous studies that have utilized preferred music (Sung & Chang, 2005) as well as other types of music interventions (Eells, 2014; Koger, Chapin, & Brotons, 1999; Lou, 2001).

The study was designed based on Vasionytė and Madison (2013) suggestions. It was a passive music intervention, with the use of relaxation music and music selected by the therapist and was carried out in a group setting. Personal preference, according to some studies (Gerdner, 2000; Sung & Chang, 2005; Sung, Chang, & Lee, 2010) plays an important role in the therapeutic endeavor. Specifically, preferred music can evoke positive distant memories in the listeners, introduce familiarity into the aged home setting, stimulate collective memories and unfold communications among members of the group (Gerdner & Schoenfelder, 2010; Lehtonen, 2002). The Progressively Lowered Stress Threshold model also proposed that agitation could be reduced by modifying environmental stimuli and controlling for factors that correlate with perception of stressors (Hall & Buckwalter, 1987). Thus it is believable that the familiarity, emotional connection and social interaction offered by the group music intervention helped to create a sense of safety for the elderly in an environment and thus, reducing negative psychological outcomes such as anxiety and agitation (Mirotnik & Ruskin, 1985) and enhance their functional abilities (Son et al., 2002; Sung, 2006). Even participants in our study were moderately impaired in their cognitive functioning, the results confirmed Gerdner and Schoenfelder (2010) view that, familiar music remained as interpretable stimuli despite the deterioration in their other abilities.

Besides, improvement in subjective mood has been found for the intervention group. As previous study revealed, music intervention produced better physical and psychological functioning, which may in turn have beneficial effects on stress responses, reducing anxiety, improving mood and lessening pain perception. One of the possible mechanisms is that playing music according to individual preferences could render the acoustic environment to be familiar and predictable to the client, as well as providing a connection with positive memories from the past and induce relaxation, which in turn evokes soothing feelings in the present. In addition, participants were encouraged to make use of the musical instruments to engage in some simple forms of movement and exercises. These movements placed few cognitive demands on participants yet provided them with the opportunity for social interaction (either with the therapist or other participants) that did not rely on verbal skills. This interaction may serve to provide an avenue for expression of emotions (Sherratt, Thornton, & Hatton, 2004).

Besides, in view of the results, one factor to be considered is the length of the intervention. The trends of the results seem to indicate that, most of the improvements occur between T0 and T4, i.e. from baseline to the 8th session. It is possible that a 4-week intervention may be sufficient to induce the desirable changes on the psychological and behavioral dimensions, yet more systematic studies targeted on examining the dosage effect are required before arriving at a conclusion.

Cultural Appropriateness

As pointed out by literature in music therapy and dementia, the cultural appropriateness of the choice of music is paramount to the effectiveness of the intervention. This study is the first of this kind to specifically design a music intervention that would fit into the elderly care system in Hong Kong and to address the musical taste of the local participants. It highlighted the importance of cultural considerations when adapting from music intervention paradigm which is developed elsewhere, e.g. in Western society or in Taiwan, and the need to further investigate and refine a intervention protocol that is appropriate for the local settings in Hong Kong.

Successful factors

A number of factors contribute to the success of the current study.

1. Firstly, the multi-faceted implementation strategies (Sung et al., 2008) appeared to be useful in the current study as it helped to promote adherence not only to the music protocol but also the research guidelines. An intervention protocol was developed and the expressive arts therapy trainees were closely monitored for adherence to the protocols, this helps minimizing the operator-dependent effects.
2. Secondly, resource kits, including a music disc, other props such as small shakers and an artificial flower, were provided to minimize differences and ensure consistency among groups. Cooperation from the staff members from the TWGHs was crucial to the implementation of the intervention. The collaboration between the Expressive Arts Therapy Trainees and workers in the residential homes allow the sessions being conducted smoothly.
3. Besides, support from the caregivers was essential, without their endorsement, the elderly would not have been able to participate in and benefited from the intervention.
4. Last but not the least, the pilot trial served as an important feedback for suitable piece of music and standardize the logistics of the group session before the actual program began. This does not only help to tailor a truly culture-specific intervention for the elderly but also helps to maintain standardized practice, which, is of vital importance for a scientific research.

Limitation

There are numbers of limitations in the present study:

1. The small number of participants included in the study would be a limiting factor, caution is warranted in generalizing results of the study. However, it serves well as a preliminary study and provides a framework that can be easily applied to a larger population in the future.
2. Participants' levels of BPSD symptoms were rated by staff at the respective residential homes, yet they were not entirely blinded to the purpose of the study which may introduce biases in assessment.
3. Besides, intervention outcomes were assessed only at baseline, during the intervention and at the completion of all sessions in the current study, a follow-up assessment can be added so as to detect if the intervention effects are sustainable.
4. Although training was provided to the staff before the implementation of intervention, we did not assess their capabilities and confidence in leading the intervention. Future study can make use of questionnaires and interviews to collect staff's view on the implementation process as well as their competence in conducting the program in the future. When needed, training and refresher courses should be provided to staff, so as to refresh and update skills and knowledge for leading the intervention in their serving unit.

Recommendation

1. Further study may research on the dose-effect relationship and investigate a suitable length of an intervention (e.g. 4 weeks vs. 8 weeks). Follow-up assessment will help to delineate the sustained effect of the intervention.
2. Assessment on staff's knowledge (such as their skills and confidence in delivering the intervention), music preference of the participants, and frequency of the intervention are all factors that can be considered in subsequent studies. Overall, attention is required in selecting music that are culturally sensitive so as to suit participants' musical taste and familiarity. Besides, music with positive emotional tone would also be preferred to induce positive affect to the participants.
3. Besides, results of the present study illustrated significant improvement in agitated behaviors was found in the intervention group. Thus, it is recommended to replicate the intervention to other service units, in an attempt to benefit more people with dementia as well as the caregivers.
4. The collaboration between Expressive Arts Therapy trainees and staff from elderly home is recommended for future study as both can contribute their knowledge and skills from their individual training backgrounds, and help to deliver the programme in a more holistic manner.

Conclusion & Implication

Neuropsychiatric symptoms are frequent in dementia and contribute significantly for burden caregiver and illness costs. The present study proved that a cultural-specific music intervention was effective in managing behavioral and psychological symptoms among elderly with dementia. This nonpharmacological intervention is simple, easy-to-deliver, cost-effective, and produces no side effects. In addition, it does not lead to the problems of diminishing elders' dignity due to the use of physical constraints or the increase in dependency due to the use of medication as aforementioned. Thus, it is recommended as an initial strategy for the management of BPSD symptoms. Ongoing training and professional education of staff member, such as the rationale and skills of the use of music or other art intervention in residential home settings, are needed for the delivery of such care, so as to provide the highest standards of care to patients and their caregivers. With the promising results of this study, it is recommended that elderly residential homes could make use of music as an initial strategy to manage behavioral and psychological symptoms among elderly with dementia.

Reference

Chang, F. Y., Huang, H. C., Lin, K. C., & Lin, L. C. (2010).

The effect of a music programme during lunchtime on the problem behaviour of the older residents with dementia at an institution in Taiwan. *Journal of clinical nursing*, 19(7-8), 939-948.

Dewing, J. (2003).

Sundowning in older people with dementia: evidence base, nursing assessment and interventions. *Nursing Older People*, 15(8), 24.

Douglas, S., James, I., & Ballard, C. (2004).

Non-pharmacological interventions in dementia. *Advances in Psychiatric Treatment*, 10(3), 171-177.

Eells, K. (2014).

THE USE OF MUSIC AND SINGING TO HELP MANAGE ANXIETY IN OLDER ADULTS. *Mental Health Practice*, 17(5).

Gerdner, L. A. (2000).

Effects of individualized versus classical "relaxation" music on the frequency of agitation in elderly persons with Alzheimer's disease and related disorders. *International Psychogeriatrics*, 12(01), 49-65.

Gerdner, L. A., & Schoenfelder, D. P. (2010).

Evidence-based guideline. Individualized music for elders with dementia. *Journal of gerontological nursing*(36), 7-15.

Hall, G. R., & Buckwalter, K. C. (1987).

Progressively lowered stress threshold: a conceptual model for care of adults with Alzheimer's disease. *Archives of psychiatric nursing*, 1(6), 399.

Ho, S.-Y., Lai, H.-L., Jeng, S.-Y., Tang, C.-w., Sung, H.-C., & Chen, P.-W. (2011).

The effects of researcher-composed music at mealtime on agitation in nursing home residents with dementia. *Archives of psychiatric nursing*, 25(6), e49-e55.

Koger, S. M., Chapin, K., & Brotans, M. (1999).

Is music therapy an effective intervention for dementia? A meta-analytic review of literature. *Journal of Music Therapy*, 36(1), 2-15.

Lehtonen, K. (2002).

Some ideas about music therapy for the elderly. Paper presented at the Voices: A World Forum for Music Therapy.

Lesta, B., & Petocz, P. (2006).

Familiar group singing: Addressing mood and social behaviour of residents with dementia displaying sundowning. *Australian Journal of Music Therapy*, 17, 2.

Lou, M. F. (2001).

The use of music to decrease agitated behaviour of the demented elderly: the state of the science. *Scandinavian journal of caring sciences*, 15(2), 165-173.

McCullough-Brabson, E. (1981).

An assessment of the musical needs and preferences of individuals 65 and over.

Mirotznik, J., & Ruskin, A. P. (1985).

Inter-institutional relocation and its effects on psychosocial status. *The Gerontologist*, 25(3), 265-270.

Pacchetti, C., Mancini, F., Aglieri, R., Fundarò, C., Martignoni, E., & Nappi, G. (2000).

Active music therapy in Parkinson's disease: an integrative method for motor and emotional rehabilitation. *Psychosomatic medicine*, 62(3), 386-393.

Raglio, A., Bellelli, G., Mazzola, P., Bellandi, D., Giovagnoli, A., Farina, E., . . . Ubezio, M. (2012).

Music, music therapy and dementia: a review of literature and the recommendations of the Italian Psychogeriatric Association. *Maturitas*, 72(4), 305-310.

Sherratt, K., Thornton, A., & Hatton, C. (2004).

Music interventions for people with dementia: a review of the literature. *Aging & Mental Health*, 8(1), 3-12.

Soley, G., & Hannon, E. E. (2010).

Infants prefer the musical meter of their own culture: a cross-cultural comparison. *Developmental psychology*, 46(1), 286.

Son, G. R., Therrien, B., & Whall, A. (2002).

Implicit memory and familiarity among elders with dementia. *Journal of Nursing Scholarship*, 34(3), 263-267.

Sung, H. C. (2006).

Evaluation of the implementation of a preferred music intervention for reducing agitation and anxiety in institutionalised elders with dementia.

Sung, H. C., & Chang, A. M. (2005).

Use of preferred music to decrease agitated behaviours in older people with dementia: a review of the literature. *Journal of clinical nursing*, 14(9), 1133-1140.

Sung, H. C., Chang, A. M., & Abbey, J. (2008).

An implementation programme to improve nursing home staff's knowledge of and adherence to an individualized music protocol. *Journal of clinical nursing*, 17(19), 2573-2579.

Sung, H. C., Chang, A. M., & Lee, W. L. (2010).

A preferred music listening intervention to reduce anxiety in older adults with dementia in nursing homes. *Journal of clinical nursing*, 19(7-8), 1056-1064.

Sung, H. C., Lee, W. L., Li, T. L., & Watson, R. (2012).

A group music intervention using percussion instruments with familiar music to reduce anxiety and agitation of institutionalized older adults with dementia. *International journal of geriatric psychiatry*, 27(6), 621-627.

Svansdottir, H., & Snaedal, J. (2006).

Music therapy in moderate and severe dementia of Alzheimer's type: a case-control study. *International Psychogeriatrics*, 18(04), 613-621.

Vasionytė, I., & Madison, G. (2013).

Musical intervention for patients with dementia: a meta-analysis. *Journal of clinical nursing*, 22(9-10), 1203-1216.

Yu, R., Chau, P. H., McGhee, S. M., Cheung, W. L., Chan, K. C., Cheung, S. H., & Woo, J. (2012).

Trends in Prevalence and Mortality of Dementia in Elderly Hong Kong Population: Projections, Disease Burden, and Implications for Long-Term Care. *International journal of Alzheimer's disease*, 2012.



藝術對改善認知障礙症患者症狀研究 東華三院與香港大學行為健康教研中心合作研究項目



參加者同意書

親愛的參加者:

香港大學行為健康教研中心邀請您參與由何天虹博士主理的研究調查。這是一項關於藝術對於長者護理的學術研究，旨在探討音樂及運動如何改善認知障礙症患者的躁動行為及情緒。

研究詳情

參加者會經隨機抽樣後，被分派到實驗組和對照組。實驗組的參加者須連續八個星期出席每星期兩次、每次三十分鐘的音樂律動小組。此音樂律動小組由註冊表達藝術治療師、註冊舞蹈治療師及註冊音樂治療師設計及監察，並由表達藝術治療實習生及已接受訓練的院舍職員帶領。而對照組的參加者將會維持日常院舍生活及活動。所有參加者(包括實驗組及對照組)的行為及情緒將會每星期被紀錄一次。

風險及活動安全：

本研究旨在探討參加者的躁動行為及情緒，應該不會造成任何風險或不適。您絕對有權於任何時候退出。研究人員會為您提供所需的幫助。如有需要，亦會將您轉介到合適的服務單位。

資料處理：

研究所得資料會絕對保密，只作研究用途。參加者姓名在數據庫中會用代號取締，數據只可由研究員使用作分析及撰寫報告。您的個人身份將不會在任何有關這個研究的報告上被辨認出來。我們並會在三年內把所有個人資料銷毀。

參與者的權利：

參與者參與本研究純屬自願性質，是次研究並不為閣下提供報酬，但所搜集數據將對研究提供寶貴的資料。參與者可以向研究人員提出問題，直至得到滿意回覆為止。參與者有權隨時終止參與此研究而不會受到阻止。如有對研究計劃有任何查詢，請與請與本項目研究人員成卓茵小姐(電話: 2831-5216) 聯絡。如您想知道更多有關研究參與者的權益，請聯絡香港大學非臨床研究操守委員會 (電話: 2241-5267)。

香港大學行為健康教研中心總監

何天虹博士

二零一四年十月一日

回條

參加者姓名：_____

本人 ** 同意 / 不同意 上述會員參與是項研究。
(** 請刪去不適用者)

簽署：_____

日期：_____



藝術對改善認知障礙症患者症狀研究

東華三院與香港大學行為健康教研中心合作研究項目



保證人同意書

您好：

本人是香港大學行為健康教研中心總監何天虹博士，為了更了解藝術如何能夠幫助認知障礙症患者。東華三院與香港大學行為健康教研中心合作，進行一項有關於音樂及運動對改善認知障礙症患者躁動症狀及情緒的學術研究，對象為 65 歲或以上住院的認知障礙症患者。

參加者會經隨機抽樣後，被分派到實驗組和對照組。實驗組的參加者須連續八個星期出席每星期兩次、每次三十分鐘的音樂律動小組。此音樂律動小組由註冊表達藝術治療師、註冊舞蹈治療師及註冊音樂治療師設計及監察，並由表達藝術治療實習生及已接受訓練的院舍職員帶領。而對照組的參加者將會維持日常院舍生活及活動。

所有參加者(包括實驗組及對照組)的行為及情緒將會每星期被紀錄一次。本研究旨在探討參加者的躁動行為及情緒，應該不會造成任何風險或不適。參加者及其保證人絕對有權於任何時候退出。研究人員會為參加者提供所需的幫助。如有需要，亦會將參加者轉介到合適的服務單位。研究所得資料會絕對保密，只作研究用途。參加者姓名在數據庫中會用代號取締，數據只可由研究員使用作分析及撰寫報告。參加者的個人身份將不會在任何有關這個研究的報告上被辨認出來。我們並會在三年內把所有個人資料銷毀。

參加者參與本研究純屬自願性質，是次研究並不會為參加者提供報酬，但所搜集數據將對研究提供寶貴的資料。參加者及其保證人可以向研究人員提出問題，直至得到滿意回覆為止。參加者及其保證人有權隨時終止參與此研究而不會受到阻止。

如有對研究計劃有任何查詢，請與請與本項目研究人員成卓茵小姐(電話: 2831-5216) 聯絡。如您想知道更多有關研究參與者的權益，請聯絡香港大學非臨床研究操守委員會 (電話:2241-5267)。

香港大學行為健康教研中心總監

何天虹博士

二零一四年十月一日

保證人回條

院友姓名：_____

本人 ** 同意 / 不同意 院友參與是項研究。
(*請刪去不適用者)

保證人姓名：_____

保證人簽署：_____

日期：_____

Appendix 3

Lists of songs used in the pilot study

Disc A

Song list (Pilot study)		
Name	Artist	Duration
1987 年歡樂今宵開場歌	群星	0:42
歡樂今宵晚安歌	葉德嫻	0:29
月亮代表我的心	鄧麗君	3:32
似水流年	梅艷芳	5:09
上海灘	葉麗儀	3:13
獅子山下	羅文	3:35
榴槤飄香	林鳳	1:54
鳳閣恩仇未了情	李香琴 譚炳文	6:27

Disc B

Song list (Pilot study)		
Name	Artist	Duration
1987 年歡樂今宵開場歌	群星	0:42
歡樂今宵晚安歌	葉德嫻	0:29
月亮代表我的心	鄧麗君	3:32
似水流年	梅艷芳	5:09
上海灘	葉麗儀	3:13
獅子山下	羅文	3:35
榴槤飄香	林鳳	1:54
鳳閣恩仇未了情	李香琴 譚炳文	6:27

Appendix 4

Lists of songs used in the main study

Disc A

Song list (Main study)		
Name	Artist	Duration
Always in my heart	--	2:34
情花開	陳齊頌	2:22
檳城艷	芳艷芬	2:42
哥仔靚	許艷秋	2:23
荷花香	芳艷芬	2:24
帝女花之香天	任劍輝 / 白雪仙	2:47
平湖秋月	--	1:56
一枝竹仔 (家和萬事興)	周聰 / 梁靜	2:52

Disc B

Song list (Main study)		
Name	Artist	Duration
Always in my heart	--	2:34
情花開	陳齊頌	2:22
榴槤飄香	林鳳	2:21
風流夢	小明星	2:33
玫瑰玫瑰我愛你	姚莉	2:23
紫釵記之劍合釵圓	任劍輝 / 白雪仙	2:50
平湖秋月	--	1:56
一枝竹仔 (家和萬事興)	周聰 / 梁靜	2:52

* There were two sessions every week.

Disc A was used for the first session and disc B was used for the second session.

The sessions were re-run for 8 weeks consecutively.

Appendix 5

長者行為及情緒紀錄表

單位名稱：_____

長者姓名：_____

日期：_____

紀錄員姓名：_____

時間：_____

(一) 在過去一星期，長者有否表現出以下行為？如果有，請您評估行為的頻密和嚴重程度。

頻密程度定義	嚴重程度定義
偶爾 — 每星期少於一次	輕度 — 不致有傷害性，長者自己不太為意
經常 — 每星期約一次	中度 — 行為/ 情緒困擾長者
頻繁 — 每星期好幾次，但不到每天一次	重度 — 干擾程度嚴重
非常頻繁 — 每天至少一次	

行為	請總括左邊方格內的行為情況 來評估以下兩項 (若各項行為出現的頻密及嚴重程度不同，以最高者為準)	
	頻密程度	嚴重程度
1. 激動/ 攻擊性行為 <input type="checkbox"/> 對正要照料他的人生氣或是對洗澡或更衣會有阻抗 <input type="checkbox"/> 很固執，要求某些事情一定要按照他的方式進行 <input type="checkbox"/> 不合作，拒絕他人的幫忙 <input type="checkbox"/> 有其他難以控制的行為 <input type="checkbox"/> 生氣地喊叫與咒罵 <input type="checkbox"/> 用力甩門，踢家具與丟東西 <input type="checkbox"/> 企圖打人或傷害他人 <input type="checkbox"/> 有其他攻擊或激動的行為 (請註明: _____) <input type="checkbox"/> 過去一星期沒有發生以上行為	<input type="checkbox"/> 偶爾 <input type="checkbox"/> 經常 <input type="checkbox"/> 頻繁 <input type="checkbox"/> 非常頻繁	<input type="checkbox"/> 輕度 <input type="checkbox"/> 中度 <input type="checkbox"/> 重度
2. 異常行為 <input type="checkbox"/> 漫無目的地在房子內踱步 <input type="checkbox"/> 反覆地翻找衣櫃或抽屜 <input type="checkbox"/> 反覆穿脫衣服 <input type="checkbox"/> 反覆一些活動或習慣 <input type="checkbox"/> 忙於重覆的行為，例如按鈕控或繞繩	<input type="checkbox"/> 偶爾 <input type="checkbox"/> 經常 <input type="checkbox"/> 頻繁 <input type="checkbox"/> 非常頻繁	<input type="checkbox"/> 輕度 <input type="checkbox"/> 中度 <input type="checkbox"/> 重度

<input type="checkbox"/> 過度的煩躁不安，無法安靜坐著，蹦蹦跳或手指敲擊 <input type="checkbox"/> 有其他一再重複的行為 (請註明: _____) <input type="checkbox"/> 過去一星期沒有發生以上行為		
3. 易怒/ 情緒不穩定 <input type="checkbox"/> 脾氣不好，對小事情突然發脾氣 <input type="checkbox"/> 情緒變化從一端到另一端，例如前一分鐘很好，下一分鐘很生氣 <input type="checkbox"/> 突然性地憤怒 <input type="checkbox"/> 沒有耐性，無法等待事情的延遲 <input type="checkbox"/> 暴躁不安或易怒 <input type="checkbox"/> 好辯且難以相處 <input type="checkbox"/> 有其他易怒的表徵 (請註明: _____) <input type="checkbox"/> 過去一星期沒有發生以上行為	<input type="checkbox"/> 偶爾 <input type="checkbox"/> 經常 <input type="checkbox"/> 頻繁 <input type="checkbox"/> 非常頻繁	<input type="checkbox"/> 輕度 <input type="checkbox"/> 中度 <input type="checkbox"/> 重度
4. 憂鬱/ 情緒低落 <input type="checkbox"/> 有因為憂傷而哭泣、啜泣 <input type="checkbox"/> 有憂傷或精神不濟的表現 <input type="checkbox"/> 貶抑自己或說自己是一個失敗者 <input type="checkbox"/> 說自己是一個不好的人，而且應該被懲罰 <input type="checkbox"/> 顯得沮喪，或是說自己沒有未來 <input type="checkbox"/> 說自己是家人的負擔或是說家人如有沒有他會更好 <input type="checkbox"/> 有死的念頭或是談到想自殺 <input type="checkbox"/> 有其他憂鬱的表徵 (請註明: _____) <input type="checkbox"/> 過去一星期沒有發生以上行為	<input type="checkbox"/> 偶爾 <input type="checkbox"/> 經常 <input type="checkbox"/> 頻繁 <input type="checkbox"/> 非常頻繁	<input type="checkbox"/> 輕度 <input type="checkbox"/> 中度 <input type="checkbox"/> 重度

(二) 請圈出長者選擇的分數。

「這裡有一系列的臉部表情。最左邊的代表最快樂，然後越向右邊表示越不快樂，直到最右邊這個代表最憂傷。請指出最能代表你現在心情的臉部表情。如果你覺得兩個鄰近的表情都很接近你現在的心情，你也可以選擇兩個表情之間。」



Appendix 6

個人資料紀錄表

單位名稱： _____
長者姓名： _____
日期： _____

填表人姓名： _____
填表人職位： _____

B1. 性別： 0 <input type="checkbox"/> 男 1 <input type="checkbox"/> 女	B3. 教育程度： 0 <input type="checkbox"/> 沒有接受教育 1 <input type="checkbox"/> 1—2 年 2 <input type="checkbox"/> 3 年或以上
B2. 年齡： _____ 或 出生日期： _____ 年 _____ 月 _____ 日	B4. 入住院舍年份： _____
B5. 最近進行簡短智能測驗(MMSE)的分數： 分數 _____ 測試日期 _____ 年 _____ 月 _____ 日	
B6. 除認知障礙症外，長者是否患有其他疾病 (例如：高血壓、糖尿病)? 0 <input type="checkbox"/> 否 1 <input type="checkbox"/> 是 請註明： _____ _____ _____	
B7. 長者是否患有其他精神疾病 (例如：抑鬱症、焦慮症、精神分裂等)? 0 <input type="checkbox"/> 否 1 <input type="checkbox"/> 是 請註明： _____ _____ _____	
B8. 長者是否正在接受藥物治療？(指精神科藥物) 0 <input type="checkbox"/> 否 1 <input type="checkbox"/> 是 請註明： _____ _____ _____	

Appendix 7

Session rundown

需要時間 (分鐘)	主題/ 歌曲	活動
3:00	Checking in	組員安頓好後，跟他們逐一打招呼。最後回到座位上，進行 Checking in：闡明小組活動性質，問日期及星期
2:34	Always in my heart	呼吸練習
2:22	情花開	盡量配合歌詞中動詞去加入開合動作：手部開合動作，手臂開合，雙腳搖晃，並跟組員逐一拍手問好
2:42/ 2:21	檳城艷/ 榴槤飄香	派沙鏈，以言語描繪東南亞景色
2:23/ 2:33	哥仔靚/ 風流夢	先為前一首歌作總結，並以言語來聯繫前後的歌曲。此曲目以戀愛為題，可以借題發揮讓組員回憶起自己的青春時代。 歌曲完結後收回沙鏈
2:24/ 2:23	荷花香/ 玫瑰玫瑰我愛你	同以言語來聯繫前後的歌曲。此曲目以花為題，可引導組員以不同感官去思考鮮花的特性。此處使用道具假花來增強視覺效果
2:47/ 2:50	帝女花/ 紫釵記	給予空間讓組員自由發揮，鼓勵他們自發性地感受歌曲
2:05	Thinking of the past	適時給予鼓勵，引導他們進入放鬆狀態，安靜地感受音樂
2:52	一支竹仔 (家和萬事興)	最後作結需跟開頭一樣跟組員逐一拍手說再見。告知下次見面時間及第幾次開組。

Evaluation

Elderly Services Section, Community Services Division, Tung Wah Group of Hospitals realized that in view of rapidly increasing number of elderly with dementia, approximately 45% of our serving elderly in our elderly homes are suffering from dementia. The Elderly Services Section, Community Services Division of Tung Wah Group of Hospitals has actively developed and promoted the use of some cultural art-based interventions for the elderly with dementia in order to maintain their physical, cognitive and psychosocial function as well as improve quality of life.

In 2014, with funding support from the Social Welfare Development Fund Phase II, the Elderly Services Section in collaboration with the Centre on Behavioral Health of the University of Hong Kong, conducted a study on evaluating the effectiveness of the use of music and movement in managing agitated behaviors among the elderly with dementia in residential care homes. In addition, the project aimed to equip staff with the skills in implementation of music and movement group activities. There were 73 elderly from 10 residential homes joined the main study while 5 elderly from one residential home participated the pilot study.

Through a set of questionnaire, feedback was collected from five elderly homes which had joined the intervention group in the study,

1. Effectiveness for the elders with dementia in participation of the study
Elderly homes reflected that the behavioral problems of the elders with dementia showed improvement. It helped to promote positive mood and encourage communication and social activities for the elders. Participants were devoted in the music and movement group.
2. Effectiveness for the service units in participation of the study
Elderly homes agreed that it helped to reduce the agitated behaviors of the elders with dementia as well as equip the staff to conduct the music and movement group. Family members were satisfied with the positive effect induced by the music and movement group.
3. Continual of conducting the music and movement group
Immediately after the completion of the study, three elderly homes have continuously conducted the music and movement group twice per week for a few more months in average. There were a total of 19 elderly participated in the group.

4. Recommendation of the music and movement group

All elderly homes highly recommended the music and movement group to be implemented to other elderly service units.

5. Case sharing

Madam A suffered from fluctuated moods and always showed sadness. Her family members reflected that she made numerous phone calls to them very frequently every day and the depressive mood was expressed. After the participation of the study, Madam A showed more happiness with smiling face. The frequency of sad phone calls were greatly reduced. Her family members were excited to see her change and requested to continue to conduct the group.

Madam B was irritable and refused the assistance in daily activities. After joining music and movement group activities in the study, she became more positive and willing to interact with the others. Family members were satisfied the arrangement of the music and movement group.

Madam C was suffered from wandering and poor memory problem. However, she was able to follow the instructions and engaged in the music and movement group. She attended on time and enjoyed the activities in group sessions.

Madam D was a chair-bound lady and rarely participated the group activities in the elderly home. During the study, she was happy to join the music and movement group and able to follow the instructions.

Mr. E was a silent and passive man. As observed in the music and movement group, he was more active to interact with the facilitator. His family members were surprised about his change and were pleased to know that he was able to chat with the others happily.

Mr. F spoke loudly and showed agitated behaviors at times. It was noticeable that his mood has become more stable after the participation in the study. He was able to share his idea appropriately.

Snapshots



The facilitator encouraged the elderly to express own ideas in the group.



The old lady used the maracas to dab the props rhythmically.



Greeting facilitated the elderly to be more attentive and enjoyed in the group.



The elderly were concentrated on the instructions and enjoyed playing the maracas.



The facilitator described the relationship between the flower props and the song to the elderly.

Special Thanks & Participating Parties

We would like to specially thank for the participated elders, family members, staff and researchers in this study. Thank you very much for their actively participation and contribution.

Publisher:	Tung Wah Group of Hospitals	
Publishing Supervisor:	Mr. Yiu Tze-leung, Ivan	Community Services Secretary, Community Services Division, Tung Wah Group of Hospitals
Author:	Dr. Ho Tin Hung, Rainbow	Director, Centre on Behavioral Health, The University of Hong Kong
Research team members:	Elderly Services Section, Community Services Division, Tung Wah Group of Hospitals	
	Ms. Leung Bick King, Alice	Assistant Community Services Secretary(Elderly Services)
	Ms. Chung Shuk Ming, Kitty	Community Services Officer (Elderly Services I) <small> [until 29 February 2016]</small>
	Ms. Chan Lai Ying, Catherine	Community Services Officer (Elderly Services I) <small> [started from 1 April 2016]</small>
	Ms. Kwok Ka Lai, Janet	Project Manager (Dementia Care)
	Centre on Behavioral Health, The University of Hong Kong	
	Ms. Lee Huen Tung, Pandora	Art Psychotherapist and Practicum Coordinator
	Ms. Sing Cheuk Yan, Joyce	Research Executive


Participating services units:	1. TWGHs Hui Lai Kuen Home for the Elderly
	2. TWGHs Y.C. Liang Memorial Home for the Elderly
	3. TWGHs Ma Cheng Shuk Ying Home for the Elderly
	4. TWGHs Wu York Yu Care & Attention Home
	5. TWGHs Chan Han Home for the Elderly
	6. TWGHs Lo Man Huen Home for the Elderly
	7. TWGHs Pao Siu Loong Care & Attention Home
	8. TWGHs Fong Shu Chuen Care & Attention Home
	9. TWGHs Wu Chiang Wai Fong Care & Attention Home
	10. TWGHs Tai Tung Pui Care & Attention Home
	11. TWGHs Hui Mok Tak Yu Care & Attention Home

Published date: June, 2016
 Published quantity: 500 copies

Not For Sale

All rights reserved. Please indicate the source of the resource if it is required to be used.

The content of this study was the personal opinions of the author and not represent the stands of Tung Wah Group of Hospitals and the University of Hong Kong.



編印日期：2016年6月

印刷數量：500本

非賣品

版權所有，如需使用，請註明資料來源

此研究內容只代表作者個人意見，並不代表東華三院及香港大學立場

鳴謝及參與單位

特別鳴謝曾參與此研究的長者、家屬、各職員及相關研究人員，感謝他們的積極參與及付出。

出版：東華三院
督印人：姚子樑 東華三院社會服務總主任
作者：何天虹博士 香港大學行為健康教研中心總監

研究小組成員：東華三院社會服務科安老服務部
梁碧琮 社服主任(安老服務)
鍾淑明 服務發展主任(安老服務 I)
(至 2016年 2月 29日)
陳麗英 服務發展主任(安老服務 I)
(由 2016年 4月 1日起)
郭嘉麗 計劃經理(認知障礙症服務)

香港大學行為健康教研中心
何天虹博士 總監
李萱彤 註冊藝術心理治療師及實習統籌
成卓茵 研究統籌

參與單位：東華三院許麗娟安老院
東華三院梁昌紀念安老院
東華三院馬鄭淑英安老院
東華三院伍若瑜護理安老院
東華三院陳嫻安老院
東華三院羅文壠安老院
東華三院包兆龍護理安老院
東華三院方樹泉護理安老院
東華三院伍蔣惠芳護理安老院
東華三院戴東培護理安老院
東華三院許莫德瑜護理安老院

活動花絮



在音樂律動小組中，指導員鼓勵長者多表達自己。



長者跟著音樂節拍，運用沙槌輕敲水果道具。



先親切地打招呼，可幫助長者於小組活動中更加專注及投入。



長者們專心地跟從指示輕搖沙槌。



指導員向長者提示道具與播放中的樂曲的關係。

B婆婆個性急躁，經常拒絕別人協助進行日常自理活動。參與本研究的音樂律動小組活動後，她變得積極，並且願意與其他人交流。她的家人對音樂律動小組的安排表示欣賞。

C婆婆有遊走及記憶力衰退的問題，但是她表現出很大動機參與小組，能夠準時出席音樂律動小組及遵從指導員的指示，亦很享受此小組活動。

D婆婆在安老院舍內較被動及退縮，寧願經常坐在椅子上及極少參與小組活動。在研究期間的音樂律動小組內，她表現開心，亦能遵從指示，投入參與，一改退縮表現。

E先生是一位被動沉靜的人。在音樂律動小組中，同工觀察到他較主動與指導員交流。對他的改變，家屬都表示驚喜，並為他能夠與其他人愉快地談天感到高興。

F先生平日說話聲浪很大，間中出現躁動行為。參與研究後，他的情緒明顯地變得穩定，而且亦能適當地與別人分享自己的意思。

檢討

東華三院社會服務科安老服務部的研究工作小組認為，認知障礙症患者數目急速增長，在東華三院安老院舍內，約有百分之四十五的長者患有認知障礙症。東華三院社會服務科的安老服務部一直積極發展和推廣使用為本地文化而特別設計的藝術介入方法予認知障礙症長者，藉以維持他們的生理、認知和心理功能，並改善生活質素。

在2014年，本院安老服務部獲得社會福利發展基金（第二期）撥款下，與香港大學行為健康教研中心合作進行一項研究，以探討音樂律動應用於安老院舍的認知障礙症長者的躁動行為之成效。此外，這項研究亦期望裝備同工掌握推行音樂律動小組的技巧。最後，共有73位來自10間安老院舍的長者參與研究，另外有5位來自1間安老院舍的長者參與試點研究。

根據實驗組的5間安老院舍之間卷調查結果，概括了以下的意見：

1. 參與研究對認知障礙症長者的成效

安老院舍反映認知障礙症長者的行為問題有所改善，而此介入方法能促進長者的正面情緒、鼓勵溝通及參與社交活動。在音樂律動小組中，參與者都表現投入。

2. 參與研究對服務單位的成效

音樂律動小組能有助減少認知障礙症長者的躁動行為，同時亦裝備同工掌握推行小組的技巧。參與者的家屬均表示滿意音樂律動小組為長者帶來的正面影響。

3. 持續推行音樂律動小組

研究結束後，部份安老院舍表示有繼續推行每星期兩次的音樂律動小組，整體平均維持了小組達數個月，期間共有19位長者參加了小組。

4. 推薦音樂律動小組

所有受訪的安老院舍均表示高度推薦此音樂律動小組予其他安老服務單位。

5. 認知障礙症長者個案分享

A婆婆情緒較易波動，而且經常情緒欠佳。家屬表示她每天撥打多次電話予家屬，表達不開心的情緒。參與研究後，A婆婆表現比之前開心及有更多笑容，撥打電話表達不快的次數亦大幅減少。她的家人很高興看到這種變化，並要求服務單位繼續舉辦此音樂律動小組。

結論與啓示

認知障礙症患者出現神經精神病症狀是十分常見，同時亦為照顧者帶來沉重的負擔及增加治療成本。本研究證實，一個特定文化音樂律動介入能有效處理認知障礙症長者的行為和心理症狀。這種非藥物治療方法簡單、易於推行、具有成本效益，而且不會產生副作用。此外，如早前報告內提及，這個介入方法沒有導致因使用約束方法而損害長者尊嚴的問題，亦沒有像藥物治療會令長者增加依賴性。故此，研究團隊建議運用音樂律動介入可用於處理行為及心理症狀的初步方法。為了提供高質素的照顧服務予患者及照顧者，同工需接受持續的培訓和專業的教育，例如在院舍內使用音樂或其他藝術介入的原因和技巧等。根據本研究的成果，研究團隊建議安老院舍可採用音樂介入，作為處理認知障礙症長者的行為和心理症狀的一個初步方法。

<本報告由香港大學行為健康教研中心以英文編寫，並由東華三院進行中文翻譯。

此中文譯本與英文版報告如有歧異或矛盾，一律以英文版為準>

建議

1. 將來的研究可以探討劑量效應的關係及調查一個介入方法的合適時期（例如四星期對照八星期），而跟進評估將有助解釋介入方法效果的持久性。
2. 評估同工的知識（例如他們推行介入方法的技巧和信心）、參與者的音樂喜好及介入方法的頻率，都是日後研究中需要考慮的因素。總括來說，需要根據當地文化而選擇合適的樂曲，以配合參與者的音樂品味和熟悉感。此外，賦有正面情感曲調的音樂可以優先選擇給參與者，以便帶出正面的效果。
3. 本研究的結果顯示，實驗組的躁動行為出現明顯的改善。因此，建議將音樂律動介入方法推廣至其他服務單位，藉此希望令更多認知障礙症患者及照顧者得到裨益。
4. 在將來的研究中，建議表達藝術治療實習生和安老院舍的同工繼續合作，按照各自接受培訓的背景，互相交流知識和技巧，以便推行更全面的介入活動。

限制因素

本研究有一些限制因素如下：

1. 由於本研究的參與者數目少，因此，當歸納一個普及性的研究結果時，研究團隊需要特別謹慎處理。相反，此研究亦成為一個初步的探討，並提供一個框架以便將來應用於更大規模的研究上。
2. 參與者的行為及心理症狀水平由個別安老院舍的同工評分，但由於同工並非完全不獲知研究的目的，因此可能將個人的傾向反映在評估中。
3. 此外，評估音樂律動介入的結果只在開始時、音樂律動介入期間及所有小組完成時進行。如果能增加一個研究後的跟進評估，便有助檢測音樂律動介入成效的持久性。
4. 雖然在推行音樂介入方法前，同工已經接受培訓，可是研究團隊並沒有評估同工對推行音樂介入方法的能力和信心。在將來的研究中，可透過問卷及訪問，收集同工對實踐介入時的過程及將來推行活動的能力之意見。在有需要時，提供培訓及重溫課程予同工，讓同工掌握及採納最新的技巧和知識，以便服務單位推行活動。

成功因素

本研究得以成功有賴以下幾項因素：

1. 對於本研究來說，多方面實施的策略是十分實用的，（Sung et al., 2008）因為這個方法有助於促進參與者遵守整個音樂律動小組的方案和研究指引。由於音樂介入方案已預先設計好，而表達藝術治療實習學生亦被緊密監察以遵從音樂介入方案，因此，確保了所有實習學生實踐的音樂介入方案是一致。
2. 研究團隊提供有關活動物資予工作人員在音樂律動小組時應用，包括音樂光碟及其他道具，例如小沙槌及絲布花，以減少組別之間的差異，確保一致性。
3. 東華三院同工與表達藝術治療實習學生共同合作，令音樂律動小組得以順利進行，是成功推行音樂介入方法的重要因素。
4. 此外，照顧者的支持亦十分重要，如果沒有他們的支持，長者不能參與及受惠於此音樂介入方法。
5. 最後，在主要研究開始前，試點研究提供了重要的意見以優化樂曲的選擇及統一整個小組活動的流程。這不僅有助於為長者度身設計一個真正特定文化的介入方案，同時亦能夠維持標準的運作模式，這些都是對科學研究尤其重要。

文化合適程度

一些音樂治療和認知障礙症的文獻指出，一個適合當地文化的音樂選擇，對於其治療功效是十分重要。為配合香港的長者照顧體系及針對參與者的音樂喜好，本研究所採用的便是第一套這類專門設計的音樂介入方法。由歐美或台灣社會發展的音樂介入，皆強調考慮文化的重要性，因此，有需要深入研究及改進一個適合香港環境的音樂介入方案。

此外，研究結果顯示音樂介入的時期是其中一項需要考慮的原因。按照研究結果的趨勢顯示，似乎大多數的行為改善情況都是發生在前測和中期測之間，即從開始到第八節小組。所以，為期四星期的介入可能已足以引發令人滿意的心理和行為方面的變化，但是在達致這個結論前，一些更有系統及針對劑量效應的專門研究是必須的。

討論

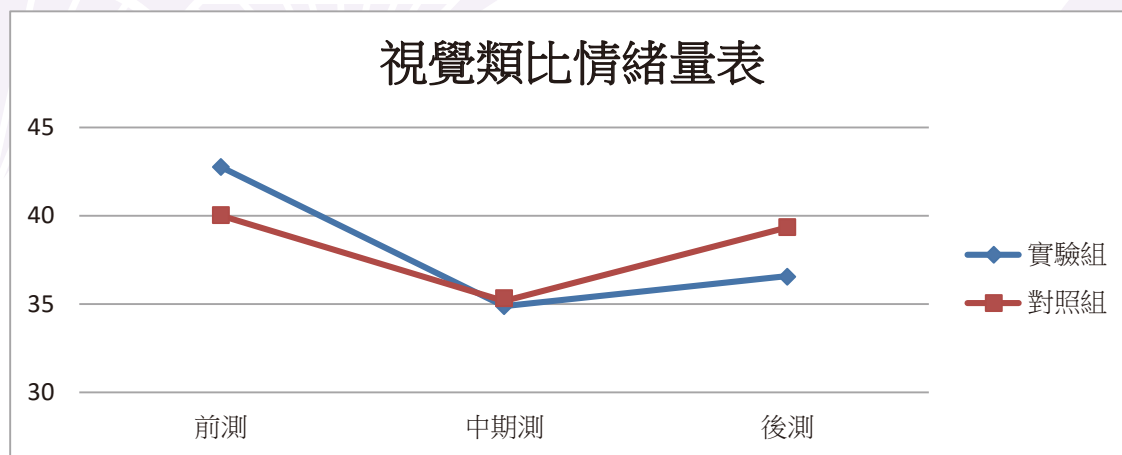
此研究旨在為香港的認知障礙症長者發展一套特定文化的音樂律動介入模式。被動式音樂介入主要針對中度認知受損的患者而設，這個小組活動由一名表達藝術治療實習生和一名來自安老院舍的社工共同推行，為期8個星期共16節。在研究進行期間，認知障礙症長者的情緒、行為和心理症狀被記錄以量度介入方法的成效。本研究的結果顯示，音樂律動介入模式能有效紓緩認知障礙症長者的行為和心理症狀，特別是能減少他們躁動行為和情緒低落的情況。這些改變並未在對照組中發現，而且是剛剛相反的。在對照組的記錄中，長者的異常行為顯著增加。對於躁動行為和異常行為，研究結果發現相對於對照組，實驗組在這兩方面行為皆有更明顯的改善。總括來說，此項研究結果與過往使用喜好的音樂（Sung & Chang, 2005）及其他類型的音樂介入的研究結果都是一致的。（Eells, 2014；Koger, Chapin & Brotons, 1999；Lou, 2001）。

本研究是基於Vasionytė和Madison（2013）的建議而設計的，是一套被動式的小組音樂介入模式，並運用了輕音樂和治療師所選擇的特定音樂。根據一些研究（Gerdner, 2000；Sung & Chang, 2005；Sung, Chang & Lee, 2010）指出，個人的喜好在治療中扮演著重要的作用。具體而言，喜好的音樂可以喚起聆聽者正面及遙遠的記憶，並在院舍照顧環境裡加強熟悉感，刺激集體記憶及小組成員之間的交流（Gerdner & Schoenfelder, 2010；Lehtonen, 2002）。漸進性壓力閾值減低模式亦提出，透過改變環境的刺激和控制感應壓力相關的因素是可以減少躁動行為的出現（Hall & Buckwalter, 1987）。因此，音樂小組能提供熟悉感、情感聯繫及社交，而且亦有助於在一個環境裡為長者營造一種安全感，從而減少負面的心理結果，例如焦慮和躁動（Mirotnik & Ruskin, 1985），以提升他們的能力（Son et al., 2002；Sung, 2006）。本研究的參與者的認知能力皆在中度受損程度，而研究結果亦確定了Gardner和Schoenfelder（2010）所提出的觀點：即使長者其他功能出現退化，熟悉的音樂仍能為他們帶來刺激。

研究結果顯示，實驗組的主觀情緒亦有所改善。根據過往的研究發現，音樂介入能產生更好的生理和心理功能，從而減輕人們在壓力下的反應、減少焦慮、改善情緒和減輕對疼痛的感覺。其中一種可能產生這種效果的機制，就是按照個人的喜好播放音樂，以提供一個熟悉及可預計的環境，同時亦能喚起人們對過去的正面回憶以達致放鬆作用，使人感到安慰舒適。在小組內指導員鼓勵參與者使用樂器做一些簡單的動作和練習，雖然這些活動對參與者的認知功能要求較少，但亦提供了社交機會（不論與治療師或其他參與者）而不只限制於語言功能的表達，這種交流提供了一個表達情緒的途徑（Sherratt, Thornton & Hatton, 2004）。

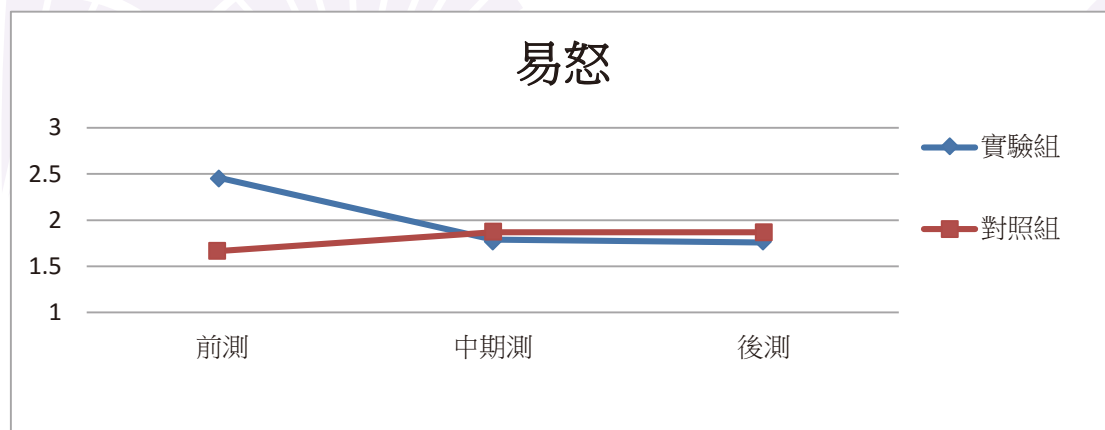
圖七

在不同時間內視覺類比情緒量表的分數轉變(實驗組和對照組)



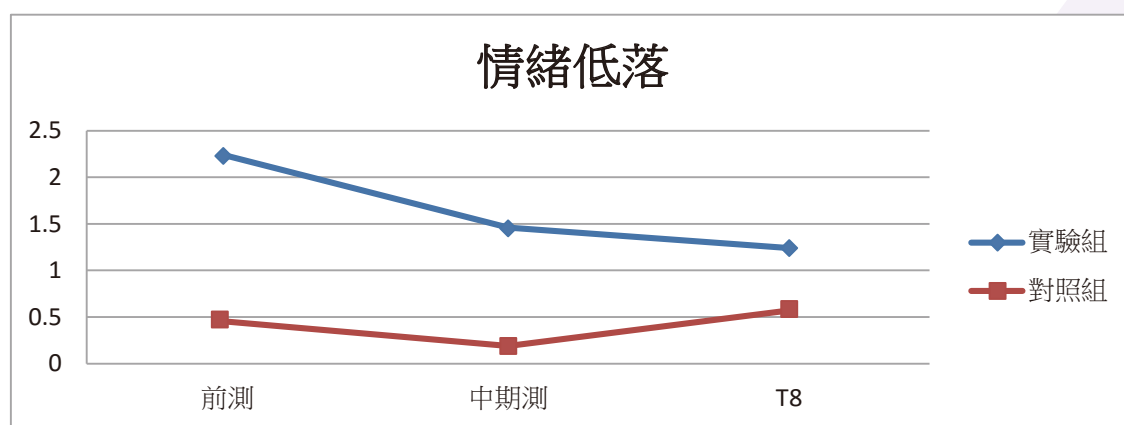
圖五

在不同時間內易怒的分數轉變(實驗組和對照組)



圖六

在不同時間內情緒低落的分數轉變(實驗組和對照組)



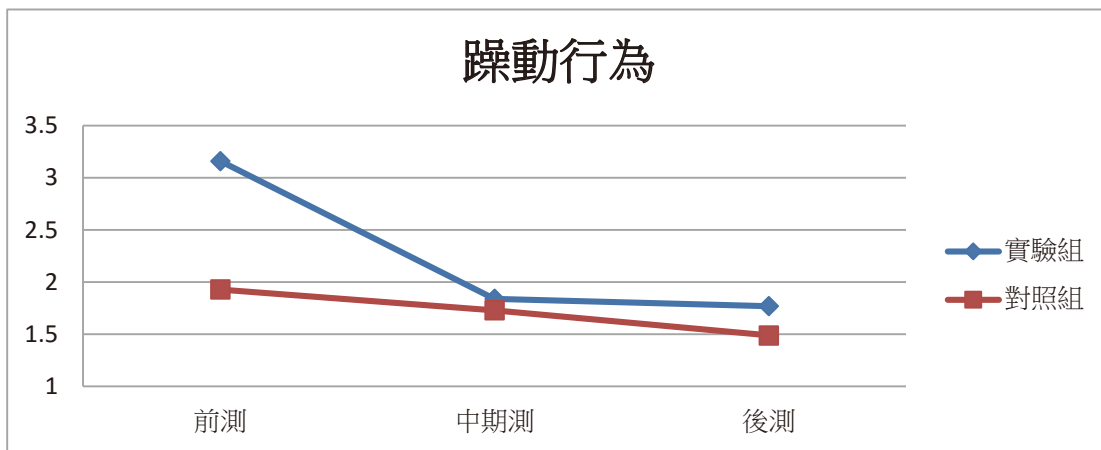
實驗組和對照組的比較

通過混合變異數分析比較實驗組和對照組在不同時間（前測，中期測，後測）的神經精神病徵量表-院舍版(NPI-NH)和視覺類比情緒量表(VAMS)分數。

兩組在不同時間的躁動行為[F (2, 64) =3.31, P <0.01, 效應值= 0.06]和異常行為 [F (2, 64) =3.22, P <0.05, 效應值= 0.07]分數出現明顯的交互作用，表示在不同時間實驗組和對照組的分數變化具有顯著的差異（圖三和圖四）。但是，對於易怒 [F (2, 64) = 1.06, P>0.01]、情緒低落 [F (2, 64) =2.75, P>0.01]和主觀情緒[F (2, 64) =1.26, p>0.01]，兩組之間便沒有明顯的相互作用了（圖五到圖七）。

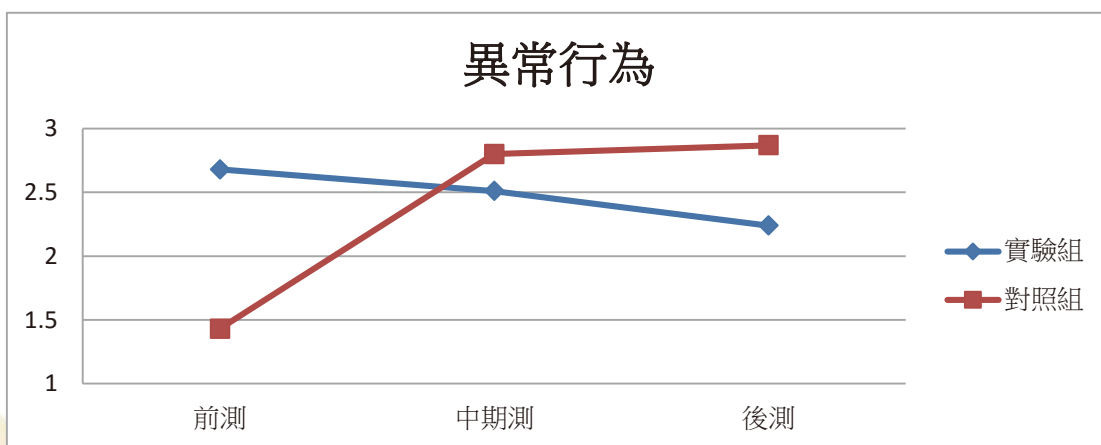
圖三

在不同時間內躁動行為的分數轉變(實驗組和對照組)



圖四

在不同時間內異常行為的分數轉變(實驗組和對照組)



對照組

對照組的長者的行為和心理症狀及主觀情緒的分析如下：如表四所示，不同時間內不同行為和心理症狀的分數表現較為浮動。躁動行為的平均分從2.06（標準差=3.28）下降到1.77（SD=2.64）；異常行為從1.42（標準差=1.84）上升到2.87（標準差=2.91）；易怒症狀從1.67（標準差=2.53）上升到1.87（標準差=2.65）；情緒低落從0.45（標準差=1.28）上升到0.57（標準差=1.07）。視覺類比情緒量表(VAMS)分數從平均40（標準差=18.37）下降到39.33（標準差=15.3；表五）。

表四.

前測至後測中精神病徵量表-院舍版(NPI-NH)的分數轉變(對照組)

	樣本 數目	躁動行為平均 分(標準差)	異常行為平均分 (標準差)	易怒症狀平均分 (標準差)	情緒低落平均分 (標準差)
前測	33	2.06 (3.28)	1.42 (1.84)	1.67 (2.53)	0.45 (1.28)
研究第 1 星期	33	2.09 (3.21)	3.91 (3.66)	2.45 (3.23)	1.09 (2.72)
研究第 2 星期	33	1.88 (2.43)	2.48 (3.04)	1.76 (2.31)	0.27 (0.76)
研究第 3 星期	32	1.63 (2.15)	1.16 (1.94)	1.50 (2.18)	0.59 (1.41)
中期測	31	1.68 (2.47)	2.84 (3.1)	1.87 (2.94)	0.19 (0.75)
研究第 5 星期	30	2.03 (3.2)	3.13 (3.12)	1.90 (3.01)	0.33 (1.15)
研究第 6 星期	30	2.07 (2.89)	2.97 (2.81)	1.07 (2.72)	0.40 (1.16)
研究第 7 星期	30	1.93 (3.17)	3.27 (2.91)	1.40 (2.16)	0.30 (1.12)
後測	30	1.77 (2.64)	2.87 (2.91)	1.87 (2.65)	0.57 (1.07)

表五

前測至後測中視覺類比情緒量表(VAMS)的分數轉變(對照組)

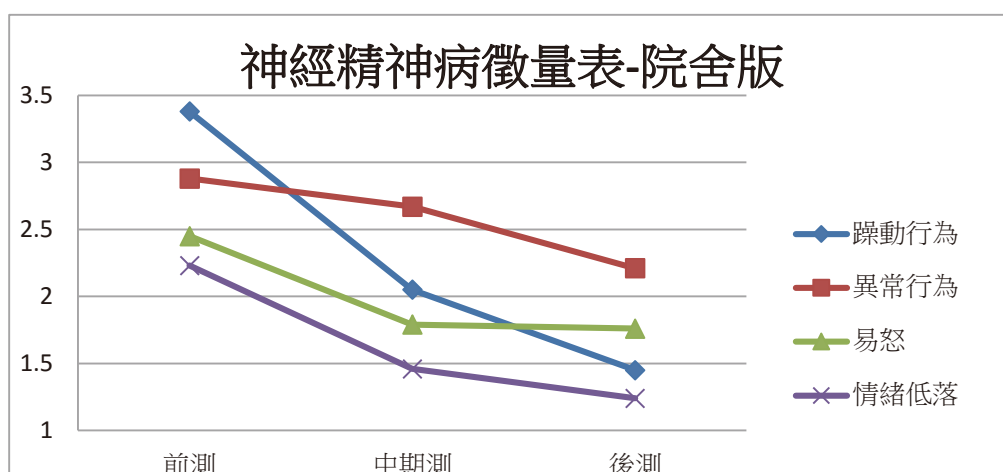
	樣本數目	平均分 (標準差)
前測	33	40.00 (18.37)
研究第 1 星期	33	38.79 (18.83)
研究第 2 星期	33	40.61 (18.19)
研究第 3 星期	32	40.31 (12.82)
中期測	31	35.16 (20.96)
研究第 5 星期	30	36.33 (17.90)
研究第 6 星期	30	34.67 (18.71)
研究第 7 星期	30	35.67 (21.76)
後測	30	39.33 (15.30)

重複測量變異數用以分析對照組在不同時間（前測，中期測，後測）內神經精神病徵量表-院舍版(NPI-NH)和視覺類比情緒量表(VAMS)分數的轉變。時間對神經精神病徵量表-院舍版(NPI-NH)和視覺類比情緒量表(VAMS)之分數均沒有產生主要影響，即是在後測時，對照組長者的行為和心理症狀或主觀情緒相對於前測時沒有顯著改善。

除了調查趨勢外，重複測量變異數分析亦用來測試在不同時間內（前測，中期測，後測）實驗組的神經精神病徵量表-院舍版(NPI-NH)和視覺類比情緒量表(VAMS)分數的轉變。對於神經精神病徵量表-院舍版(NPI-NH)，時間產生了主要的影響[F (2,72) = 12.66, p < 0.01, 效應值= 0.14]，從數據上顯示由前測到後測期間，認知障礙症長者的行為和心理症狀顯著下降（圖一）。同時，時間亦對視覺類比情緒量表(VAMS)的分數產生明顯的影響 [F (1,70, 61.28) = 5.89, p < 0.01]，長者在後測時表達的主觀情緒比在開始時的較好（圖二）。在研究分析中，成對樣本t檢定亦用來測量前測至中期測之間和中期測至後測之間的分別。從前測到中期測，實驗組的躁動行為 (t = 3.20, p < 0.01)、易怒 (t = 2.07, p < 0.05) 和情緒低落 (t = 2.66, p < 0.01) 的症狀出現明顯的差異，但在中期測至後測間並沒有太大分別，而異常行為的分數則未能達到統計學上顯著改變的水平。

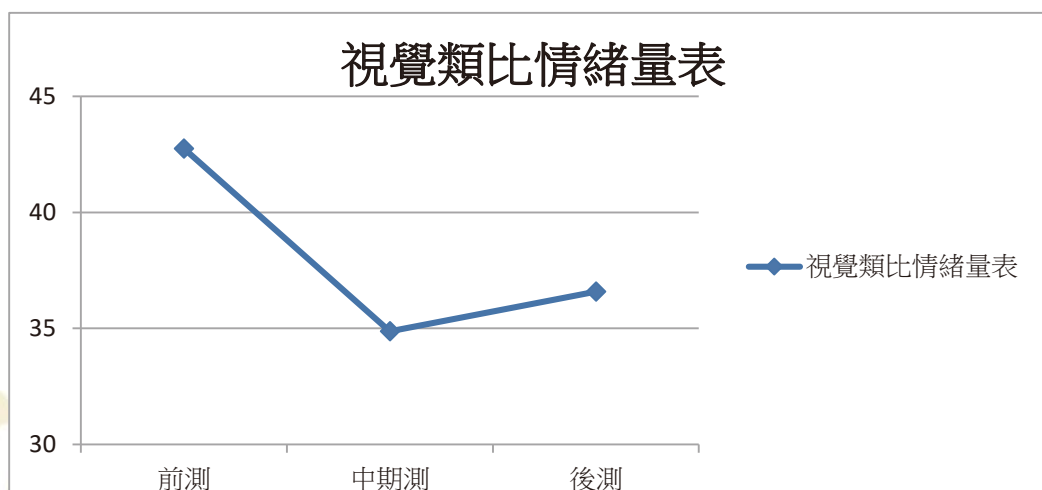
圖一

在不同時間內神經精神病徵量表-院舍版不同項目的分數轉變(實驗組)



圖二

在不同時間內視覺類比情緒量表的分數轉變(實驗組)



實驗組

為了解長者的行為和心理症狀以及主觀情緒是否有所改善，研究團隊探索了神經精神病徵量表-院舍版(NPI-NH)和視覺類比情緒量表(VAMS)分數的變化。如表二所示，實驗組的平均分數有下降的趨勢。參與者躁動行為的平均分從3.38（標準差=3.67）下降到1.45（標準差=2.01）；異常行為從2.88（標準差=3.45）下降到2.21（標準差=2.57）；易怒症狀從2.45（標準差=2.71）下降到1.76（標準差=1.87）；情緒低落從2.23（標準差=2.92）下降到1.24（標準差=1.75）。視覺類比情緒量表(VAMS)的平均分也從42.75（標準差=16.64）下降到36.58（標準差=11.69，表三）。

表二

前測至後測中精神病徵量表-院舍版(NPI-NH)的分數轉變(實驗組)

	樣本 數目	躁動行為平均分 (標準差)	異常行為平均分 (標準差)	易怒症狀平均分 (標準差)	情緒低落平均分 (標準差)
前測	40	3.38 (3.67)	2.88 (3.45)	2.45 (2.71)	2.23 (2.92)
研究第 1 星期	39	2.72 (3.39)	2.79 (3.11)	2.54 (2.85)	1.82 (2.84)
研究第 2 星期	38	2.13 (2.96)	2.97 (3.35)	1.97 (2.4)	1.63 (2.87)
研究第 3 星期	38	2.45 (3.55)	1.95 (3.25)	2.08 (2.92)	1.37 (2.21)
中期測	39	2.05 (2.98)	2.67 (2.81)	1.79 (2.18)	1.46 (1.97)
研究第 5 星期	38	1.55 (2.25)	2.32 (2.78)	1.29 (1.61)	1.08 (1.79)
研究第 6 星期	38	1.37 (2.02)	1.55 (2.31)	0.84 (1.41)	1.00 (1.68)
研究第 7 星期	36	1.19 (1.86)	1.58 (2.12)	1.25 (1.68)	0.97 (1.72)
後測	38	1.45 (2.01)	2.21 (2.57)	1.76 (1.87)	1.24 (1.75)

表三

前測至後測中視覺類比情緒量表(VAMS)的分數轉變(實驗組)

	樣本數目	平均分 (標準差)
前測	40	42.75 (16.64)
研究第 1 星期	39	39.74 (14.60)
研究第 2 星期	38	35.79 (15.36)
研究第 3 星期	38	36.84 (16.78)
中期測	39	34.87 (14.12)
研究第 5 星期	38	33.68 (13.84)
研究第 6 星期	38	35.79 (14.45)
研究第 7 星期	37	34.05 (14.43)
後測	38	36.58 (11.69)

結果

樣本特徵

本研究共有73名認知障礙症長者參與。如表一所示，69.9%（樣本數目=51）的參與者為女性，而30.1%（樣本數目=22）為男性。參與者的平均年齡為85.29歲（標準差=7.04）。39.7%的參與者從未接受過教育，24.7%完成了一至兩年的教育，餘下三分一的參與者（34.2%）則完成了至少三年的教育。參與者在院舍的平均居住時間為4.4年（標準差=4.39）。此外，參與者最近的簡短智能測試(MMSE)平均分為13.02（標準差=6.03），表示參與者的認知功能受損程度都頗為嚴重。另外，實驗組的參與者在安老院舍內居住的時間（平均值= 5.4年，標準差=4.65）相比對照組（平均值=3.18年，標準差=3.50）的更長（ $t=-2.26$ ， $p<0.05$ ）。

表一
參與者的統計

	樣本數目 =73	對照組 =33	實驗組 =40	χ^2/t -值	p
性別, 樣本數目 (%)				.001	.978
女性	51 (69.9)	23 (69.7)	28 (70.0)		
男性	22 (30.1)	10 (30.3)	12 (30.0)		
年齡, 年, 平均數 (標準差)	85.29 (7.04)	85.70 (7.03)	84.95 (7.11)	.449	.655
教育水平, 樣本數目 (%)				2.36	.307
未曾接受過教育	29 (39.7)	12 (37.5)	17 (42.5)		
一至兩年	18 (24.7)	6 (18.8)	12 (30.0)		
三年或以上	25 (34.2)	14 (43.8)	11 (27.5)		
居住在院舍的時間,年, 平均數 (標準差)	4.40 (4.29)	3.18 (3.50)	5.40 (4.65)	-2.26	.027
簡短智能測試評分, 平均數 (標準差)	13.02 (6.03)	12.18 (6.19)	13.85 (5.84)	-1.12	.265

註：持續的可變值是透過獨立的雙側 t 檢定來比較；分類的可變值則用卡方檢定作比較。遺漏的個案則被剔除於分析之外。

音樂介入

有學者建議運用多方面的策略，以促進實踐及遵從整個音樂介入方案（Sung, Chang & Abbey, 2008）。有見及此，互動教學、教學素材和現場督導也成為研究團隊介入策略的基礎。音樂律動介入模式的設計是以Vasionyte和Madison（2013）的建議及試點研究中所收集到的意見作為基礎，以配合本地長者的音樂喜好。小組在一個獨立的房間內進行，每個小組內有8位參與者，並與指導員一同圍圈而坐，透過播放器，一起聆聽音樂光碟內預先錄製好的樂曲。

音樂律動小組時間為時30分鐘，開始時指導員會介紹小組的目的、時間和日期等，然後播放一段柔和背景音樂與參與者一同進行呼吸練習作熱身。主體部分則包括四首50至70年代的粵語流行歌曲和一段中國戲曲。第一首歌是一首問候歌，在此期間，指導員會個別問候每位小組成員，並引領他們進行簡單的手部動作練習。在聽音樂的同時，指導員鼓勵參與者繼續自由地活動，以回應音樂內容或節奏。一些道具例如小沙槌和絲布花是用來鼓勵參與者更投入活動，亦藉此促進多感官的體驗。只要參與者感覺舒服，他們可以隨意跟隨音樂唱歌。指導員會給予鼓勵長者參與，但長者亦可根據自己能力或意願去投入及活動。樂曲之間都安排了一個停頓，指導員會鼓勵長者分享剛才聆聽歌曲的感受、想法和觀點。在活動臨近結束時，參與者在一段放鬆背景音樂下，再次進行呼吸練習。最後再播放一首告別歌，並在參與者離開房間前提醒他們下次小組的時間和日期。（請參考英文版本內的附件七）

兩份歌曲清單是輪流在16節小組中交替使用。當中的放鬆音樂、問候歌曲和告別歌曲是相同，而主體部分的四首歌曲則有所不同，分別在於歌曲的風格、主題以及長度。主體部分的微小差別，有助於保持參與者在過程中的愉快心情和小組對他們的吸引程度，而且亦使他們可以憑著歌曲清單分辨出一星期內有兩節不同的活動。

量度工具

神經精神病徵量表-院舍版（NPI-NH）：根據神經精神病徵量表-院舍版之中文版本的躁動行為、情緒低落、易怒、異常行為等級，來量度長者的行為和心理問題。問題行為的頻率和嚴重程度分別使用4點李克特量表（1=很少，4=經常）和3點李克特量表（1=輕度，3=嚴重）來記錄。這量表已經通過香港華人認知障礙症門診患者的樣本進行了驗證，並取得了良好的可信度和有效度。

情緒：視覺類比情緒量表（VAMS）是為了神經功能受損的患者（如中風或認知障礙症）而發展應用的。它運用一條100毫米長的水平線，線的左端是一個簡單的繪圖，描繪了一張快樂的臉，而線的右端是一張悲傷的臉。在指導下，參與者透過水平線指出及表達自己目前的感覺的繪圖，而可被選擇的範圍為0至100。此量表已應用於神經功能受損的患者、健康的成年人和華人患者。

其他統計資料：統計資料來自安老院舍長者的記錄，包括年齡、性別、教育程度、最近的簡短智能測試（MMSE）評分、居住院舍的時間、服藥情況和其他醫療診斷等。

統計分析

使用描述性統計來研究參與者的人口特徵。透過重複測量變異數分析，去比較實驗組和對照組在不同時間點的評分。

研究重點

研究設計

評估採用前測-後測控制組設計。參與者被分成兩組：實驗組和對照組。實驗組的參與者會聽音樂，做一些簡單的肢體動作；而對照組的參與者則保持日常活動，並在研究期間避免參加涉及音樂的活動。

參與者

本研究所招募的對象為65歲或以上、確診患有認知障礙症、無嚴重聽力障礙、近期沒有改變用藥類型和劑量，並能溝通及跟從簡單指令的長者。參與者來自東華三院的十間安老院舍，並已得到參與者或其保證人的同意（請參考英文版本內的附錄一和附錄二）。本研究亦獲得大學倫理審查委員會的批准。

研究以安老院舍為一個單位，將招募的參與者按所屬的院舍分配為實驗組和對照組，而參與者的活動出席率需要達到至少百分之八十，才會被納入往後的分析當中。

步驟

試點研究

在研究開始前，研究團隊進行了一次試點研究，以收集各方意見來調整音樂律動小組和評估工具。這個試點研究招募了5名長者，參加一部份的音樂律動（即兩節小組）。小組為每星期兩次，每節30分鐘，並於下午進行。小組內採用的音樂和歌曲皆由顧問團隊所選，包括古典輕音樂、50至70年代的英文歌和粵語流行歌曲（請參考英文版本內的附錄三）。研究團隊記錄長者的反應及活動能力，並收集他們對歌曲的喜愛和熟悉程度的意見。

同時，安老院舍的職業治療師需填寫問卷，以量度參與試點研究的長者的情緒及躁動行為的頻率和嚴重程度。職業治療師其後亦就問卷的簡易及清晰程度，向研究團隊提供了意見作修改。

主要研究

在收集長者和職業治療師的意見後，研究團隊修改了歌曲清單（請參考英文版本內的附件四）及問卷（請參考英文版本內的附件五和六）。

在主要研究中，實驗組的長者參加了共16節音樂律動小組，每節小組時間為30分鐘，每星期兩次，並連續進行八個星期。整個研究過程皆由同一位表達藝術治療實習生帶領小組，並由一名東華三院的社工在場協助推動。而對照組的長者，則接受恆常的照顧服務。同工亦於每星期將實驗組和對照組的長者之行為表現作出評估及記錄。

研究方法

本研究由三個部分組成：

(1) 員工培訓工作坊 (2) 特定文化設計的音樂律動介入及 (3) 評估音樂律動介入模式的成效。

(1) 員工培訓工作坊

由註冊藝術治療師設計及指導，培訓表達藝術治療實習生和院舍內的同工掌握音樂律動介入模式的知識和推行活動的技巧。工作坊在整個研究開始前一個月進行，培訓對象為東華三院安老院舍內的社工、照顧員及香港大學的表達藝術治療實習生，總共20人（東華三院的16名同工和4名實習生）。在工作坊內，導師提供詳細資料包括研究背景、介入方案的理論框架、研究程序和安排，並示範了推行這項音樂律動介入模式的技巧。參與者亦在導師的監督和指導下進行實習，以汲取相關經驗。

(2) 音樂律動介入模式

被動式音樂律動活動由一個顧問團隊特別為東華三院安老院舍內的長者設計。這個團隊由一群資深的治療師組成，包括認可舞蹈動作治療師、註冊表達藝術治療師、註冊音樂治療師和註冊藝術心理治療師。[有關介入的詳情，請參閱「研究重點」之章節]

(3) 評估音樂律動介入模式的成效

此研究旨在評估這種特別設計的介入方法，對於舒緩認知障礙症患者的躁動行為和改善情緒的成效。

即使部份患者的語言功能已經退化，熟悉的曲調卻能為他們產生刺激的作用（Gerdner & Schoenfelder, 2010）。在小組環境當中，音樂能為參與的成員創造共同經歷、促進分享、交流及提升小組的凝聚力（Lehtonen, 2002）。研究發現，在被動式音樂治療的框架下，當參與者能投入活動，而這個活動亦被納入為治療的一部份，例如與熟悉的小組成員合唱（Lesta & Petocz, 2006）及在熟悉的音樂下用敲擊樂器伴奏（Sung, Lee, Li, & Watson, 2012），皆能有效處理小組成員的情緒和行為問題。

目前應用藝術的狀況

音樂介入對於認知障礙症患者似乎能產生正面的作用，可是上述的研究回顧都是在歐美及台灣進行為主。其實，個人的音樂喜好總有特定的文化取向，人們會較容易對本身文化傳統裡的樂曲萌生親切感（Soley & Hannon, 2010）。正如Raglio等（2012）在他們的音樂和認知障礙症評估報告中指出，因應文化而特別設計的音樂治療（MT）可更有效針對患者的需要，從而改善他們的行為及心理症狀和溝通能力，效果在中度至嚴重認知障礙症患者身上最為顯著。因此，這亦強調了尋找適合本地認知障礙症患者的樂曲之需要，以盡量提升音樂介入對行為及心理症狀的正面影響。

研究概要

本研究旨在評估音樂律動在紓緩認知障礙症長者的行為及心理症狀，特別是躁動行為方面的有效性。有關研究的目標、設計和結構概述如下：

研究目的

- 除了藥物治療或約束方法以外，探討音樂律動的應用，能否成為另一個照顧認知障礙症長者的可取方法。
- 了解音樂律動在紓緩認知障礙症患者躁動行為的作用。
- 裝備東華三院同工掌握推行音樂律動小組的技巧，使能持續地協助紓緩院舍內認知障礙症長者的症狀。

音樂治療

定義和類型

音樂治療是一種非藥物治療，治療師有系統地控制聲音的運用、音調和律動來達到治療的目的（Svansdottir & Snaedal, 2006）。音樂治療介入可廣泛定義為主動式或被動式音樂治療（Pacchetti et al., 2000）。在主動式音樂治療中，治療師和參與者均會參與音樂創作或體驗；而被動式音樂治療，則讓參與者簡單地在休息的狀態下，傾聽已選定的或平靜的音樂，從而達致精神放鬆的狀態。

音樂治療和認知障礙症

音樂治療法已廣泛應用於長者當中，以減少躁動和行為症狀，並改善記憶、情緒和社交活動（Sherratt, Thornton & Hatton, 2004）。早前已有研究發現，運用音樂處理認知障礙症長者的攻擊性行為，得到正面的效果。音樂使認知障礙症長者之間的肢體和言語攻擊行為顯著減少（Chang, Huang, Lin & Lin, 2010）；另一項研究亦顯示，由研究者所創的音樂對於減少安老院舍內認知障礙症院友的躁動行為，包括非攻擊性和攻擊性的肢體及言語行為，皆有好處（Ho et al., 2011）；在最近發佈的變化分析中，Vasionytė和Madison（2013）證實了音樂介入對於認知障礙症長者的功效。他們特別比較了不同類型的音樂方法，提出一個有效的介入方案應具備四個因素，包括：被動聆聽、使用錄製音樂、使用由治療師選擇的音樂和小組介入。相對於流行音樂或民族音樂，雖然研究人員推薦運用古典音樂或輕音樂，但另一項研究卻提供相反的建議。Gerdner（2000）曾探討及比較長者喜歡的音樂和古典輕音樂，對減少認知障礙症長者的躁動行為之成效，結果發現前者更為有效。過往這些針對使用長者喜歡的音樂之研究，亦已引證此類音樂能在紓緩認知障礙症長者的躁動行為提供很大的裨益（Sung & Chang, 2005）。

認知障礙症患者對陌生環境特別敏感，並可能帶給患者負面的心理影響，如焦慮和躁動不安（Mirotznik & Ruskin, 1985）。使用長者喜歡的音樂或在現有的環境內盡力提升他們的熟悉感，皆可改善他們的能力（Son, Therrien, & Whall, 2002；Sung, 2006）。對於聽者來說，自己喜歡的音樂也具有個人意義。研究顯示，這種意義往往會隨著年齡的增長而增加（McCullough-Brabson, 1981）。因此，個人喜歡的音樂能喚起長者的愉快及重要的回憶。



文獻評論

認知障礙症的定義

認知障礙症是一種漸進式的疾病，患有此症的長者日常功能，例如記憶、理解能力、語言、判斷能力以及表達情緒和行為問題的功能等會逐漸衰退。

全球與本地的普及情況

根據世界衛生組織估計，目前全球認知障礙症患者的人數為3,560萬，預計到了2030年，患者人數將為現時的兩倍，至2050年更將超過現在的三倍（World Health Organization, 2012）。隨著人口老齡化和預期壽命的增長，長者人口當中患有認知障礙症的比率亦穩步上升，這種情況在香港也不例外。研究顯示，85歲或以上的長者，每三位就有一位患有認知障礙症（Yu et al., 2012）。

認知障礙症症狀（行為及心理症狀）(BPSD)

認知障礙症患者通常有以下的症狀，例如記憶力減退、性格和情緒變化、難以執行需要組織和策劃的工作和活動等。認知功能衰退是認知障礙症的特點，另外還有一系列行為及心理症狀（BPSD）包括言語及肢體攻擊性行為、躁動行為、精神病症狀（幻覺和妄想）、睡眠困擾、對抗性行為和遊走。這些行為及心理症狀會降低認知障礙症長者的健康和生活質素，而且亦為照顧者帶來了沉重的負擔，絕對不容忽視。

行為及心理症狀 (BPSD)的治療

現時，針對於認知障礙症的行為及心理症狀之治療，主要集中於藥物治療或使用約束方法。然而這些治療方法可能會帶來負面影響，例如應用於減少躁動行為的藥物具有很大的副作用，包括加速認知功能衰退、影響心臟、嗜睡和增加了跌倒的風險（Ho et al., 2011），還有很大可能增強患者對藥物之依賴性（Dewing, 2003）。另一方面，使用約束物品容易令長者產生羞辱感，並感到失去尊嚴及缺乏尊重。因此，非藥物治療如藝術及音樂治療用以處理認知障礙症的行為及心理症狀，也漸漸地被廣泛認同（Douglas, James & Ballard, 2004）。

本研究的結果著實令人鼓舞，我們發現參與者的躁動和異常行為均有顯著的改善。比較兩個組別下，實驗組的參與者之躁動行為和憂鬱的狀況均顯著改善，而且主觀情緒亦得以提升，但在對照組中則沒有發現這樣的差異。

本研究首次採用專門設計的音樂律動方法，並配合香港照顧長者的模式和長者對音樂的喜好。是次研究顯示，這項特定文化的音樂律動介入模式能有效舒緩認知障礙症長者的行為及心理症狀。這種非藥物治療介入方法簡單和易於實行，亦不會產生副作用。因此，安老院舍為長者使用較具入侵性的治療前，可以先考慮採用這種介入方法，作為舒緩躁動行為的初步策略。

何天虹博士

首席研究員

香港大學行為健康教研中心總監

社會科學碩士課程(行為健康)總監

表達藝術治療碩士課程總監

社會工作及社會行政學系副教授

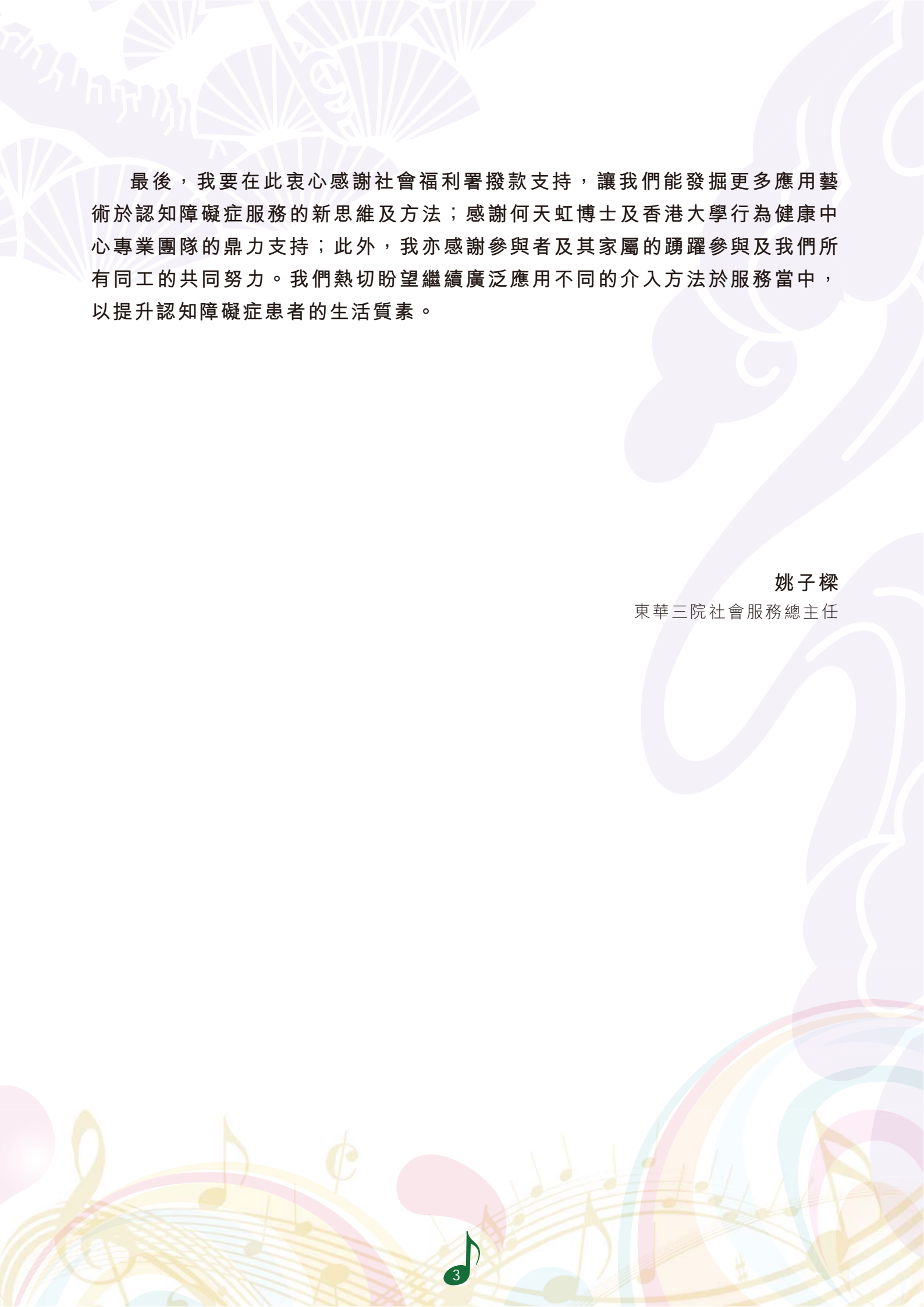
序言

認知能力衰退是認知障礙症症狀的其中一個特點，除此之外，此病症還牽涉一連串行為及心理症狀（簡稱：BPSD），包括言語及肢體攻擊性行為、躁動行為、精神病症狀（幻覺和妄想）、睡眠困擾、對抗性行為和遊走。BPSD反映了認知障礙症長者健康和生活質素的下降，同時亦為照顧者帶來沉重的負擔。

現時，針對於認知障礙症的BPSD之治療，主要集中於藥物治療或使用約束方法。可是，應用於減少躁動行為的藥物具有很大的副作用，例如加速認知功能衰退、影響心臟、嗜睡和增加跌倒的風險（Ho et al., 2011），還有很大可能增強患者對藥物之依賴性（Dewing, 2003）。另一方面，使用約束物品容易令長者產生羞辱感，並感到失去尊嚴及缺乏尊重。因此，應用非藥物治療如藝術及音樂治療以處理認知障礙症的BPSD，也日漸被認同。（Douglas, James & Ballard, 2004）

本研究測試了因應文化而特別設計之音樂活動，對於處理香港安老院舍內認知障礙症長者的躁動行為之有效性。這項介入活動是由一班資深的註冊舞蹈治療師、表達藝術治療師、音樂治療師及藝術心理治療師，根據香港長者對音樂的喜好而設計，並強調所選的音樂切合香港文化。在開始活動前，先舉辦了員工培訓簡介會，以幫助安老院舍的同工掌握推行音樂活動的知識和技巧。此外，亦進行了試點研究及收集意見，再調整音樂活動及評估工具。

研究成功招募73名長者，他們被分為實驗組和對照組。實驗組的長者參與連續8星期、每星期兩次的音樂律動小組，而對照組的長者則接受恆常的照顧服務。在音樂介入的過程中，我們鼓勵參與者自由地回應所聽到的內容和節奏，並分享自己的感受和對音樂的想法。在整個研究過程中，介入小組皆由同一位表達藝術治療實習生帶領，而東華三院的一名社工亦會到場協助活動進行。表達藝術治療實習生和安老院舍內社工之間的合作模式，不僅使音樂活動能順利進行，亦鼓勵長者遵從整個音樂律動小組的方案。



最後，我要在此衷心感謝社會福利署撥款支持，讓我們能發掘更多應用藝術於認知障礙症服務的新思維及方法；感謝何天虹博士及香港大學行為健康中心專業團隊的鼎力支持；此外，我亦感謝參與者及其家屬的踴躍參與及我們所有同工的共同努力。我們熱切盼望繼續廣泛應用不同的介入方法於服務當中，以提升認知障礙症患者的生活質素。

姚子樑

東華三院社會服務總主任

序言

研究顯示，在香港65歲或以上及85歲或以上的長者患有認知障礙症的比率，分別為約百分之十及百分之三十。年紀越大，患上認知障礙症的機會率也越高。隨著人口老齡化問題的加劇，我們確實有重要及急切的需要，去尋找多一些照顧認知障礙症長者的有效方法。

當長者遇到語言表達困難時，藝術能協助他們表達內心的想法和感受，而不同形式的藝術活動更能提升長者的生活質素，例如改善個人的特性和正面情緒。除了認知功能退化外，認知障礙症患者同時出現情緒和行為障礙的變化是十分常見。隨著病情的發展，心理和行為障礙會變得更加明顯。過往已有不少文獻證實，音樂能喚起人的身心而作出反應。當認知功能受損、語言接收及表達能力都逐漸下降時，音樂便可成為另一種與人溝通的好方法。在西方國家，音樂應用於認知障礙症服務是很普遍，可是在本地的應用卻很少。

因此，東華三院安老服務部提出一個以本地文化及音樂作為媒介的活動，以發展認知障礙症服務。由2014/2015年度至2015/2016年度，獲得社會福利發展基金（第二期）的撥款，本院安老服務部很高興能與香港大學行為健康教研中心合作進行了一項研究，以評估應用音樂律動活動於處理認知障礙症長者的心理及行為問題之成效。

在研究開始前，大學團隊為同工及實習學生舉行了一次簡介會，以裝備他們掌握帶領音樂活動的技巧和知識。整個研究的介入方法，取決於所選的歌曲之背景文化是否適合長者，並由一群藝術治療師和專業人士，參考本地長者的音樂品味而設計。

研究完成後，我們欣然發現此項按照本地特色而設計的音樂介入方法能有效處理院舍內參與者的心理及行為問題，特別是減少躁動行為和情緒低落兩方面，成效顯著；同時，我們也察覺很多參與者的行為問題，皆有明顯改善；而家屬和同工所表達的意見也是十分正面，同工亦因為參與此研究，能裝備好自己及更有信心為長者舉行相關的音樂律動活動。

鳴謝

在我們的日常生活中，音樂無處不在。不同的節奏和樂曲能帶給人們不同的感受，它潛在的力量有時比我們預期的還要更強大。

認知障礙症患者的認知、心理和日常生活功能會出現退化。隨著病情的發展，認知障礙症患者可能會出現溝通困難、情緒和行為問題。目前，香港的認知障礙症患者數目正急劇增加，在我們東華三院安老院舍當中，大約百分之四十五的院友患有認知障礙症。因此，我們確實有很大需要研究更多不同方法去幫助這些長者。

本研究特別設計了一個音樂律動小組，旨在紓緩院舍內認知障礙症患者的行為和心理症狀，並改善他們的情緒。參與者在指導員的引導下，享受與文化相關的懷舊歌曲，並鼓勵在該小組內自由活動和表達。我們很高興發現這項研究對於體弱的認知障礙症長者的情緒和行為問題有顯著的改善。患者的家屬和同工也喜見音樂的力量是這麼龐大，因為它是一種非藥物方法，而且在日常生活中也可輕易採用，而音樂也為長者提供了一個愉快、輕鬆及享受的機會。

在此，我們衷心感謝社會福利署透過社會福利發展基金(第二期)撥款支持該項研究，還有香港大學行為健康中心的何天虹博士及其團隊為本研究作出的貢獻，也非常感謝參與本研究的長者、家屬和東華三院安老服務部的同工，讓此研究得以順利完成。

我們相信可以進一步發掘音樂驚人的潛力，並能有效地應用於認知障礙症服務，令長者得到更大的裨益。

東華三院社會服務科安老服務部

目錄

鳴謝	1
序言	2
背景	6
文獻評論	6
研究概要	8
研究目的	8
研究方法	8
研究重點	10
研究設計	10
參與者	10
步驟	10
音樂介入	11
量度工具	11
統計分析	11
結果	12
討論	19
文化合適程度	21
成功因素	22
限制因素	23
建議	24
結論與啟示	25
檢討	26
活動花絮	28
鳴謝及參與單位	29



東華三院
Tung Wah Group of Hospitals

音樂律動應用於認知障礙症患者症狀 研究報告



In collaboration with:



香港大學行為健康教研中心
Centre on Behavioral Health, HKU

ISBN 978-962-8039-62-3

二零一六年六月



◁荷花香▷

(1) 荷花香 新月上
荷花愛著素衣裳
花香引得情蝶浪
怎禁她芬芳吐艷滿銀塘
心如明月呀 留天上
夜夜塘邊照情人
情味是甜還是苦
情人可似柳絲長

(2) 輕輕俛向情人問
你可知情到深時怕斷腸
花香那得千日艷
榴花結子便枯黃



◀ 檳城艷 ▶

(1) 馬來亞春色綠野景致艷雅
撩眼底那綠柳花裡便掛
芬芳吐花與樹香美艷如畫
我最愛那 春日裡鮮花幻化
情侶們互吐情話於椰樹下
若兩情深深相印
倒春光心中更愛他

(2) 馬來亞春色綠野景致艷雅
椰樹映襯那海角如畫
春風送一片綠香野外林掛
春風鮮花 心內覺舒暢樂也
若午夜互訴情話於椰樹下
情侶在芭蕉曲徑
一雙相偎怕看他
馬來亞春色綠野景致艷雅
椰樹映襯著那海角如畫
心輕快只見艷花萬綠叢掛
春風吹花 心內覺舒暢樂也



〈玫瑰玫瑰我愛你〉

- (1) 玫瑰玫瑰最嬌美，玫瑰玫瑰最豔麗，
春夏開在枝頭上，玫瑰玫瑰我愛你。
玫瑰玫瑰情意重，玫瑰玫瑰情意濃，
春夏開在荊棘裡，玫瑰玫瑰我愛你。
心的誓約，心的情意，
聖潔的光輝照大地，
心的誓約，心的情意，
聖潔的光輝照大地。
- (2) 玫瑰玫瑰枝兒細，玫瑰玫瑰刺兒銳，
傷了嫩枝和嬌蕊，玫瑰玫瑰我愛你，
心的誓約，心的情意，聖潔的光輝照大地，
心的誓約，心的情意，聖潔的光輝照大地，
玫瑰玫瑰枝兒細，
玫瑰玫瑰刺兒銳，
傷了嫩枝和嬌蕊，
玫瑰玫瑰我愛你。



◁平湖秋月▷

談情雖知說愛係要真心 你咪濫用情
相親愛係要真心咪咁薄情 落了情網要自醒
雙方心意要問明 因為情神聖 將情緣訂
借得那紅絲結深情 我倆前緣訂
真心真意共哥情似海恩愛熱情
月佬為媒做證 相愛相敬效蝴蝶穿花徑
鴛鴦鴛鴦生死也相並 情共愛與哥心相永
咁至係算多情 纏綿久永 若哥你會移情就太不應
我唔啱唔睬 唔應 哥呀我願我願與哥今生
始終相愛兩重情

照顧認知障礙症父母的 10個溫馨建議

子女要照顧患有認知障礙症的父母，除了配合醫囑，以藥物治療之外，其實還可以參考以下十個溫馨建議，在日常生活中和父母一起進行以下的活動。就像小時候，父母和你一起經歷過的活動一樣，既溫馨，又富治療作用。今天就立即行動，為患有認知障礙症的父母，送上這份最高心的禮物。



廣受長者歡迎的 懷舊歌曲名單

	歌曲名稱	主唱
1.	情花開	陳齊頌
2.	檳城艷	芳艷芬
3.	哥仔靚	許艷秋
4.	荷花香	芳艷芬
5.	帝女花之香天	任劍輝/ 白雪仙
6.	平湖秋月	(純音樂)
7.	一枝竹仔(家和萬事興)	周聰/ 梁靜
8.	榴槤飄香	林鳳
9.	風流夢	小明星
10.	玫瑰玫瑰我愛你	姚莉
11.	紫釵記之劍合釵圓	任劍輝/ 白雪仙

* 資料來源：東華三院社會服務科安老服務部與香港大學行為健康教研中心合作之「音樂律動應用
認知障礙症患者症狀」研究 (2016年6月)