Clinical guideline for using reminiscence therapy among people with dementia in residential homes

by

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Abstract

The prevalence of dementia is increasing. Persons with dementia (PWD) account for 28 million in 2003 globally, which is expected to increase to 63 million in 2030 (Department of Health, 2006). Meanwhile, the prevalence of dementia was recorded to be 6.1% for elderly aged 70 and above locally in Hong Kong (Department of Health, 2006). Older adults with dementia may suffer from unstable mood and have behavioral problems. Depression is also common in PWD. Depression often associates with a number of negative thoughts such as hopelessness and unworthy less, and increasing suicidal rate. Caregivers and frontline nurses often experience long term stress for taking care of the PWD who suffered from depression. Pharmacological intervention was used as the main treatment, but there is some possible undesirable effect. In United Kingdom, the most commonly used non-pharmacological intervention is reminiscence therapy. Reminiscence Therapy (RT), which involves the use of objects, music, tangible items such as photographs or old toys, can strengthen individual’s self-identity and mood stabilization. Frontline nurses and caregivers consider reminiscence therapy as a way to deal with depression. Reminiscence therapy is effective for PWD, who live in residential nursing homes. The purpose of the translational research is to develop a clinical guideline for applying reminiscence therapy to people with dementia in
residential homes. Feasibility and transferability of reminiscence therapy towards demented elderly in Hong Kong was assessed. An evidence-based guideline was then developed. An evaluation was proposed to assess the effectiveness of RT among PWD in the residential care homes in Hong Kong.
Declaration

I declare that this thesis represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or to any other institution for a degree, diploma or other qualifications.

Signed: _________________________

Yip Wing Man
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Chapter One

Introduction

In this chapter, background information on dementia will be introduced, including facts about depression in elderly with dementia. Then, the significance and effectiveness of reminiscence therapy will be stated, followed by the identification of research question and the objectives.

1.1 Background

Dementia is a progressive disease of the brain. There is deterioration in various aspects of human brain including memory, comprehension, learning capacity, thinking ability, calculation ability, language and executive function (Department of Health, 2006). Moreover, there will be emotional and behavioral problems resulted from dementia (Department of Health, 2006).

Patients with dementia are usually identified with unstable mood and behavioral problems. At the late stage of dementia, clients even encountered language impairment, self-care deficit and not even able to recognize family members (Department of Health, 2006). Thus this illness leads to stressful events among caregivers and causes other social burden and economic impact in society, such as additional home care cost, social
care services provided by residential or day care centre, medication costs for treating
cognitive and psychological symptoms in dementia (Department of Health, 2010).
Among these disturbances found in elderly, depression is commonly found in people with
dementia.

There is an increasing trend of depression being presented in persons with dementia
(PWD). Depression often associates with a number of negative thoughts such as
hopelessness and unworthiness and increasing suicidal rate (Castilla-Puentes & Habeych,
2010).

Demented elderly with depression were found to have a higher chance of getting
disability in activities of daily living, higher chances of expressing physical aggression,
higher risk of suicide and pose greater burden on caregivers (Lyketsos et al., 2002).

Pharmacological intervention used to be the main treatment, but because of its
possible side effect, drug-drug interaction and ineffectiveness, medication might not be
the preferable treatment (Spector et al., 2003; National Institute for Health and Clinical
Excellence and the Social Care Institute of excellence, 2006). Attention was given to
non-pharmacological intervention. In the United Kingdom, the most renowned
non-pharmacological intervention such as reminiscence therapy, and according to their
survey in 2002, half of the PWD in Wales had received this therapy (NSDC, 2002).
Also, there was an extensive history of using reminiscence with clients suffering from
According to research studies, reminiscence therapy (RT) is defined as sharing of past memories and experiences with a small therapy group or individually; it is designed for elderly with mild-to-moderate stage of dementia, while a series of lessons are held over months on regular weekly basis. The lessons involve the use of objects, music, tangible items such as photographs or old toys (Haslam, et al, 2010). The advantage was found to be cost saving and effective in strengthening self-identity, mood stabilization and social well-being as compared to medication usage (Spector, Woods & Orrell, 2008).

Reminiscence therapy was being carried out in residential care homes or day care center, the focus of the study setting will be in this area (Gibson F, 2004). Therefore, it is worthwhile to explore the usage, effectiveness, feasibility and transferability of reminiscence therapy towards demented elderly in Hong Kong.

1.2 Affirming needs

1.2.1 Targeted practice environment

In the proposed program, the targeted setting is a private elderly residential home and day care centre sited in Kowloon, which is a three-storey building. There are about 100 people living in this residential home, located on the second floor. On the third floor is an elderly day care service centre, where elderly can visit during day time for mahjong
playing, television watching or physiotherapy. Regarding major staff, there are four registered nurses and a full time physiotherapist working there. There are a lot of PWD resided in this residential care home. One third of them are PWD, and some of them suffer from depression. Currently the RCH do not have specific organized activities or non pharmacological treatments for these PWD, only pharmacological medications are prescribed to handle the problem.

1.2.2 Local setting and Degree of Severity

Dementia becomes a main public health issue as people who aged 60 or above are on the rise. Around the world, 28 million elderly were found to have dementia in 2003, the number is expected to increase to 28 million in 2030, which is expected to increase to 63 million in 2030 (Chan et al., 2010). Meanwhile, the prevalence of dementia was recorded to be 6.1% for elderly aged 70 and above locally in Hong Kong (Chan et al., 2010). What is more, the number of elderly will rise from 900,000 in 2010 to around 2 million in Hong Kong in the coming 20 years, thus a higher number of elderly suffering from dementia is expected (Department of Health, 2010).

1.2.3 Evidence based guideline needed

Other than using pharmacological therapy, Hong Kong health care systems have alternative therapies or activities which can effectively help dementia clients to slow down the deterioration process, but the usage rate of these alternative therapies is low.
To the best knowledge of the researcher’s experience, elderly centers or residential homes in Hong Kong only have routine daily news discussion class or weekly mah-jongg playing session for clients. As a result, there is no obvious beneficial effect for elderly. However, there is no particular guideline or evidence-based protocol in residential homes regarding tackle depression problem associated with dementia in daily nursing practices.

1.2.4 Development of non-pharmacological intervention and nurse-led therapy

It is essential for both frontline nurses and caregivers to start realizing and focusing on the effectiveness of non-pharmacological reminiscence therapy when evidence-based guideline is constructed (Mansfield, J., 2005). Literature showed that in order to seriously address the problem of dementia, it is important for the clinicians and nurses to move forward and find some appropriate method to treat the behaviour problems or psychological problems of PWD. Geriatric nurses have rich experience in handling elderly with dementia, while their professional knowledge equipped them to make suitable program refinement, and develop a non-pharmacological treatment program to improve the service gap (Mansfield, J., 2005).
1.3 Objectives and Significance

1.3.1 Research Question

Would implementation of reminiscence therapy reduce depression level among persons with dementia in residential homes?

1.3.2 Objective of the Study

To review the published primary studies which related to reminiscence therapy among demented elderly as compared to usual nursing care, and identified the important components of the evidence-based therapy which could assist PWD to reduce their depression level.

1.3.3 PICO Components

The patient population of interest is the PWD, whom will be the target group. The intervention of interest in the proposed program is the administration of reminiscence therapy while the comparison of interest will be some standard usual daily care or routine activity for PWD, such as daily shower or news sharing session by social workers. The Outcome of Interest in the proposed study is the depression level among the PWD. By implementing reminiscence therapy, it is expected that the depression level will be
reduced. Regarding the significance of the proposed program, proposers suggest that the administration of reminiscence therapy can lead to an improvement in activities of daily living and in cognition. Through the discussion among PWD by using different objects as clues of arousing memories, it can in turn slow down the deterioration of dementia, and reduce the level of depression, thus reducing cost in the health care system (Lyketsos & Olin., 2002).
Chapter 2 Critical Appraisal

2.1 Search and Appraisal Strategies

2.1.1 Inclusion criteria

All randomized controlled trials are included. Type of clients included is PWD. As mentioned above, the intervention included is the administration of reminiscence therapy while outcome concerned is the depression level. Therefore outcomes other than depression are excluded and will not be used as evidence.

2.1.3 Searching History

The related articles were searched and found by using database engines including Pubmed, ProQuest and CINAHL, (2003 to 2013). Key words used to search for the relevant articles were as follows: (1) reminisce* OR reminiscence, (2) therapeutic or therapy (3) dementia OR Alzheimer disease (4) depress*OR depression. Targeted journals were mainly Randomized Controlled Trials. Other studies were also included, even though the level of evidence were not as strong as RCT, as other studies may have enough evidences to prove their validity and reliability.

After combining all the keyword search, 90 studies were remained, while the inclusion criteria were full text primary source articles in English and dated from 2003 to 2013. Then the journal articles were reviewed manually. All irrelevant target groups were excluded, this resulted in six RCT studies. Details of searching were presented in table format and flow chart in Appendix I.
2.1.4 Data Extraction

In table of evidence, all important data were extracted from the six selected relevant literatures and recorded down systematically in tabular format, and presented in table of evidence for easy comparison. Six tables of evidence are presented in Appendix II.

2.1.5 Quality Assessment

Scottish Intercollegiate Guidelines Network SIGN (2012) provides a set of guidelines for quality assessment of selected literature reviews. A specific form for randomized controlled trial had been used for assessment. To assess internal validity of study, section one of the SIGN methodology checklist was used (SIGN, 2012). For the overall assessment, section two of the methodology checklist was used. Details of all the rated checklists were listed in Appendix III.

2.1.5.1 Level of evidence

All six reviewed literature articles were randomized controlled trials. Among all six studies, one of them was classified as ++, as it fulfilled 90% of the criteria of being a well conducted randomized controlled trial (Lai et al, 2004). Other five remaining randomized controlled trial studies were classified as + in SIGN form, as they fulfilled 60% or 80% of the criteria only.
2.1.5.2 Internal Validity

Although all six selected studies do not have a research question stated in the paper, all studies did have a clear stated study population, with an intervention and outcomes. Also, all studies are randomized, with an intervention and control. However, only three studies had applied single blinded method to blind investigators to prevent bias results (Hsieh et al., 2010; Lai et al., 2004, Su et al., 2012). All other studies did not have this issue mentioned. Regarding the demographic characteristics, all studies had control groups and intervention groups well controlled, so all groups had similar characteristics at basis, and the only difference between intervention and control groups were the treatments that were being given. Dropout rate was clearly stated in all studies, but only Lai and his team (2004) had intention to treat analysis done and well stated in the study, all other studies did not mention this aspect. Lastly, all studies were carried out in one or two sites, except Wang’s study (2007), so it cannot be determined whether the results obtained in the study can be comparable for all sites or not.

2.2 Results

Characteristics of reviewed Literature Studies

In the reviewed studies, number of study subjects ranged from 61 to 139. All participants were elderly with either Alzheimer disease or vascular type dementia. The majority of the participants were Asian. Their mean age ranged from 77 to 85, and
their cognitive and communication ability were categorized by MMSE, whereas their mean scores were between marks 10 to 14. All of the subjects being recruited were free from hearing or vision impairment. Studies were either carried out in nursing home settings or community day centers. All six selected studies were randomized controlled trials (RCTs) and they were carried out in Japan, Argentina, Taiwan and Hong Kong. Two studies had an extra active control group to compare reminiscence intervention with usual social contact so as to offset the effect of social interaction (Azcurre et al., 2012; Lai et al., 2004).

In the intervention group, the most frequent topics chosen were childhood experiences, favorite food, family, employment and achievements. Other discussion topics such as old style music, festivals were also included but only were used. The usage of items or objects in the therapy was seldom mentioned in the selected literatures. The follow up period ranged from nine week to twenty four weeks, which usually had evaluation done one week to twelve weeks after all the sessions ended. Primary outcome measures include depression level, cognitive function, caregiver’s burden, and empathy. Secondary outcome measure was only mentioned in one study, which was cognitive function. The majority of studies show a significant improvement in depression level but not in other outcome measures.
2.3 Summary and Synthesis

The summaries of data being extracted from the six reviewed studies are presented in tabular form for easy comparison.

2.3.1 Methodological Issues

The six reviewed studies were all RCT studies, where participants were allocated randomly. One study (Su et al, 2011) was rater blinded. Another RCT study was a single blinded with not, so that raters would not know their status and would not have bias against the intervention group (Lai, 2004, et al). The study conducted by Azcurra (2012) and his team were also single blinded.

2.3.2 Population

All participants were elderly with either Alzheimer disease or vascular type dementia. Their mean age ranged from 77 to 85, and their cognitive and communication abilities were categorized by MMSE, ranging from 10 to 22, whereas their mean scores were around 14. Three out of five studies excluded elderly who suffered from major psychiatric problems, hearing and vision problems. It was reasonable as subjects could only cooperate with researchers or interveners if they could receive instructions clearly by listening and seeing presented items clearly. Also, participants had to answer some questions, so subjects with delirium or psychiatric problems or suffering from severe dementia had to be excluded. In fact, all six studies (n=6) only recruit participants with
mild to moderate degree of dementia according to the Clinical Dementia Rating System (CRD).

### 2.3.3 Intervention and Comparison group

All six studies used reminiscence therapy as their intervention. Different reminiscence therapy topics were used by different studies, including childhood (n=4), food (n=2), old style music (n=1), festival (n=1), my family (n=2), my achievements (n=3), friendship (n=2) and child raising (n=2). During the therapy, different objects were involved to stimulate subjects’ thoughts, such as photographs (n=2), music (n=1), household items (n=1), newspaper clippings (n=1). Three articles mentioned about using tangible items in running reminiscence therapeutic sessions (Hsieh et al., 2010; Wang et al., 2007; Lai et al., 2004).

Among the five RCT studies, control groups and active passive groups in four studies (n=4) received usual routine nursing care including mild exercise and bathing (Hsieh et al., 2010; Wang et al., 2007; Lai et al., 2004; Tadaka et al., 2007). One study used simple supportive interview (n=1) as control group (Su et al., 2012). Meanwhile, Azcurra (2012) used counseling and informal social contact (n=1) as the active control group (n=1) group.

### 2.3.4 Outcome Measures
The reviewed studies had both primary and secondary outcome measures. Five articles used depression as their primary outcome (n=4); three articles used cognitive function (n=3) as their primary outcome while one article used cognitive function as their secondary outcome (n=1). Two articles used well-being as primary outcome, and other outcome measures such as quality of life (n=1), activity of daily living (n=1), apathy (n=1), neuropsychiatric disorder (n=1) were all used by one of the six articles only. To determine the effectiveness of reminiscence therapy for elderly with dementia in the aspect of depression, one study used Geriatric Depression Scale (GDS) to measure depression level (Su et al., 2011). Wang and coworkers (2007) used Cornell Scale for Depression in Dementia (CSDD) to assess depression level. Two other studies used MOSES score to measure the psychosocial status and depression level of elderly (Tadaka, et al., 2007). As cognitive function was being used quite often in the selected studies, further research focusing on this aspect can be investigated.

2.3.5 Effective Intervention: Key Reminiscence Therapy Topics

Among all six articles, five articles showed significant improvement in depression level in the intervention group; Childhood experiences, food, family, work, friends, and employment were the topics commonly used in RT. Therefore it may be appropriate to consider including childhood experiences, food, family, work, friends, employment as discussion topics in reminiscence therapy during protocol development in later period.
It was also noted that using objects to stimulate clients’ thoughts was a component that included in two articles among these six reviews articles. However, the use of objects may help to arouse clients’ interest in participating in sessions, therefore items such as old photographs, relevant pictures or household items can still be used in the reminiscence therapy.

2.3.6 Duration and Sessions of reminiscence therapy

Five out of six reviewed studies held each session for 60 minutes, while only one study held the session for 40 to 50 minutes. Lai et al (2007) held 24 sessions for the participants, once a week for 24 consecutive weeks. Su and coworkers (2011) held 3 sessions a week for 24 weeks, which had 72 sessions in total. Bi-weekly sessions were held for 12 weeks, which added up to a total of 24 sessions by Acurzza (2012) and his coworkers. Therefore most of the researchers held one sessions per week only (Lai et al, 2007; Acurzza et al, 2012; Tadaka et al., 2012) Duration of the therapy ranged from 12 weeks to 24 weeks.

Previous studies (Goldwasser et al., 1987) had indicated that the positive influence of reminiscence therapy towards elderly with dementia can be lost quickly in a five-week follow up period. In addition, Spector and his team (2002) suggested that reminiscence therapy should be carried out in a continuous fashion, so that the benefits of the therapy can be lengthened and would not be lost shortly after the program ended.
2.3.7 Outcome of Intervention

Four out of six reviewed randomized controlled studies showed that participants who received reminiscence therapy session had significantly decreased their depression level when compared with participants who received usual nursing routine for bathing and mild exercises. Wang and coworkers (2007) found that there was a significant decrease in depression level by measurement from Cornell Scale for Depression in Dementia, where the pre test mean value was 7.31 and the post test value was 6.23. Su and his team (2012) found that there was a significant decrease in the Geriatric Depression Scale (GDS) mean value form pretest 4.3 to 3.4. Another study (Hsieh et al., 2010) indicated that there was a significant decrease in depression value also among participants in the intervention group who received group reminiscence therapy, and the mean GDS decreased from 7.79 to 6.41. Tadaka and his team (2007) also compared group intervention with normal routine day care service, and the results found that there was no change in depression score (MOSES) score among subjects with Alzheimer disease, but a significant decrease was found in depression score (MOSES score) among subjects with vascular dementia. From these results, it can be suggested that reminiscence therapy could have significant positive effect on dementia elderly’s depression level with p<0.010.

In fact, previous studies stated that reminiscence therapy had positive significance effect on patients with vascular dementia, and this study’s finding concurred with this
argument. It was suggested that it might be due to the severity of different types of disease. Vascular dementia was found to have more capacity in activities for daily living when compared with subjects with Alzheimer disease, but other factors such as slight differences in severity of disease at subjects’ baseline may also affect the results (Tadaka et al., 2007).

2.3.8 Characteristics of Follow up period

Follow-up action were often carried out right after intervention was done (n=4); all other studies did the follow up ranging from 6 weeks to 24 weeks post intervention (n=3).

2.3.9 Nurses’ Role in Reminiscence Therapy

Among six reviewed studies, interventionists from four studies were psychiatric, public health and geriatric nurses, or nurses who were experienced in looking after dementia patients for many years. Also, interveners were qualified nurses who had good health care training background, holding a Master or PhD degree. Graduate nurses and registered nurses were able to perform the role of raters or data analyst. Nurses also worked with psychologists, psychiatrists, social workers, to carry out multi-disciplinary team approach for dementia clients. Thus, nurses can be assigned as the interventionists in the implementation of reminiscence therapy sessions.

From all the six selected literature reviews, it was found that reminiscence therapy had a beneficial effect to decrease the depression level of elderly with dementia. The
reminiscence therapy guidelines could be introduced to private residential homes as no residential homes have related reminiscence therapy based on evidence in current practice.

2.3.10 Implications for Practice

Dementia is often associated with problems such as depression, which was considered as society financial burden as well as caregivers’ burden. There is medication for controlling dementia; however it often results in negative side effect. Non-pharmacological intervention, reminiscence therapy was used widely in the United States, and proved to be useful in improving these symptoms. Reminiscence therapy was proved to be effective in improving behavioral function of elderly with dementia, however no evidence-based guidelines were developed and applied in a regular fashion in private residential homes. In the literature studies being discussed above, it can be concluded that reminiscence therapy program can be used and help elderly with dementia to improve depression level. A guideline was developed to propose the use of reminiscence therapy.
Chapter Three

Assessing Implementation Potential

As discussed in previous chapter, it is essential to develop a clinical guideline for using reminiscence therapy among people with dementia in residential homes. In this chapter, the transferability of the findings, feasibility of the implementation of the proposed program, and the cost-benefit ratio of the innovation will be discussed.

Implementation

The issue of dementia and its related problems had been raised in the previous chapter, and the need for having an evidence based protocol for the reminiscence therapy had been explored, while the literature review had provided support for the development of guidelines for reminiscence therapy program. It is expected that by implementing reminiscence therapy, the depression level will be improved.

In this dissertation, the implementation potential of the reminiscence therapy will be assessed, different aspects such as the transferability of findings, the feasibility of implementation, the cost-benefit ratio of the innovation and recommendations will be identified, and thus an evidence based guideline will be resulted.

3.1 Transferability of the Findings

3.1.1 Target Audience and Target Setting

The target setting is a private elderly residential care home (RCH) sited in Kowloon.
There are around 100 clients. Our target number will be 30, as one third of them are diagnosed with dementia. The residential clients usually suffer from some common problems, and the major concern is dementia. The long term institutionalized residents had been staying in this residential home ranging from two months to 8 years, with an average stay of around 4 years in the residential home. The target setting is a residential home rather than a day centre, as it is comparatively easy to gather elderly for therapy as they are living in the organization.

Most of the reviewed studies were carried out in Asian countries, while majority of the target settings were in residential homes. Target audiences in some reviewed studies were Chinese, which is the same ethnic group of our local setting. Moreover, the age group and level of dementia in most of the reviewed studies matched with our target audiences’ characteristics, which are ranging from 77 to 85 years old, and diagnosed with mild to moderate dementia. Therefore the transferability of the findings in the reviewed studies to the local setting is believed to be high.

3.2 Feasibility of Implementation

Registered nurse in the proposed residential nursing home commented that she would be interested in carrying out this innovation. Nurses are given the freedom to carry out the innovation and they are invited to give any suggestion and comments on the reminiscence therapy programme. Currently, in the morning, the staff holds programs
daily including simple news reading program or stretching exercise. In the afternoon, the organization will hold programs such as fine motor training for patients with dementia by using specially designed for an hour. In the view of this, reminiscence therapy program can be carried out to replace one of the afternoon program, so the innovation can fit in smoothly with the current staff functions. It was being discussed and agreed by the two registered nurses.

3.2.2 Organizational climate

The organization had been supporting other universities in carrying out research such as study in speech therapy. The Superintendent and registered nurses also show interest in cooperating with the proposed study. They have been promoting nursing guidelines which can help to improve the services being provided.

3.2.3 Availability of facilitators

There are three registered nurses, a full time physiotherapist and ten health care workers currently working in the organization. One of the registered nurses was the superintendent of the residential home, who is responsible for final decision making, management and operation of the whole organization. She also designs further training for staff. Other staffs are well trained in looking after the elderly and have good communication skills with them.

3.2.4 Facilitators’ skills
The facilitators are the two registered nurses who are assigned to lead the session. To provide an acceptable and positive environment for the targeted clients is a vital factor affecting client’s participation rate and lower dropout rate. People tend to enjoy social interactions and development of friendship with facilitators, which make the program a much more acceptable context. In addition, facilitators should be able to show empathy, enthusiasm, care and be patience to the elderly. All these factors are important yet achievable at current chosen setting.

3.2.5 Equipment and facility

Equipment being needed in carrying out the proposed therapy program includes DVD machines, which is planned to be used for playing specific type of old music, such as the drama theme music being played in 60’s and 70’s. Other equipment needed include photocopy machine and computer, which will be needed.

3.2.6 Administration or Management support

The superintendent of the organization is supportive of the proposed intervention. She is open to evidence-based practice. The superintendent encouraged her staff to get more on job training and expose to different ideas. She also agrees no extra office hours should be needed for in-house training. Instead, meeting and training for registered nurse can be done during office hour, and their extra effort being put into the new program will be considered in annual performance review. This can be an
Encouragement for the staff to join this program voluntarily.

3.2.7 Program time schedule

The proposed program comprises of 8 sessions, each session lasts for one hour in a weekly basis. Two registered nurses had shown interest in participating in the proposed program. However, they are allowed to withdrawal from the program if they prefer to quit. The proposer will have regular meetings with the facilitators, and try to solve their doubts and try to improve the quality of the proposed program. Individual interview will also be arranged to listen to their opinions. Moreover, registered nurses will be well informed about the advantages of holding the reminiscence program throughout 8 weeks, with research evidence provided.

3.2.8 Planning of Implementation

Table 1. Schedule for Implementation and Evaluation

<table>
<thead>
<tr>
<th>Timeslot</th>
<th>Phase</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1 to 2</td>
<td>Introduce and promote proposed program to staff</td>
<td>Seek approval and support from Superintendent and other nurses involved. Provide explanation and need of the program by holding meeting with staff twice a week. Each meeting is expected lasting for an hour.</td>
</tr>
<tr>
<td>Week 3 to 5</td>
<td>Recruitment of subjects</td>
<td>Meet with potential eligible clients, explaining the details of the proposed program to them and obtaining their consent.</td>
</tr>
<tr>
<td>Week 6</td>
<td>In-house training of staff</td>
<td>Provide 2 sessions in house training (each last for 2 hours) for registered nurses who will be responsible for carrying out the</td>
</tr>
<tr>
<td>Week 7</td>
<td>Start of the program</td>
<td>Beginning of the first session of the whole program. Nurses starts off with self introduction and encourage clients to meet one another and get to know each other.</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Week 8-14</td>
<td>On going program for another 7 sessions.</td>
<td>Nurses will carry on to be the facilitators in the proposed program. A different topic will be brought up in each session and nurses will try to involve the 6 subjects to share their experiences. In week 8, the first topic is childhood and family. In week 9 the second topic is schooldays. And five other different topics will be brought up in the rest of the sessions.</td>
</tr>
<tr>
<td>Week 8-14</td>
<td>On going evaluation</td>
<td>On going evaluation will be carried out. Regular meeting will be carried out between proposers and facilitators, so as to refine any issues concerned.</td>
</tr>
<tr>
<td>Week 14</td>
<td>Evaluation 1</td>
<td>Evaluation carried out by facilitators, data collected and further data input will be done in this week.</td>
</tr>
<tr>
<td>Week 18</td>
<td>Evaluation2</td>
<td>One more evaluation will be carried out after the last session ended for another 4 weeks’ time. Effect of the therapy is assessed again through evaluation.</td>
</tr>
</tbody>
</table>

### 3.3 Cost-Benefit Ratio of the Innovation

In addition to the investigation into the issue on feasibility of implementation, there is also another issue for consideration, which is the cost-benefit ratio of the innovation. As there is certain cost involved in implementing the new program, it is vital to see whether the benefits for implementing the innovation is more than the cost being spent in
In carrying out a new project or new implementation, there is always cost incurred. The cost involved includes the material cost as well as non-material cost. Cost to be considered including administrative cost, new equipment cost, manpower cost and other electricity costs.

Administrative cost and new equipment cost can be enormous, so sufficient time is needed for the setting up of the equipment or the infrastructure, as to make sure expenditure on new equipment can be as low as possible. However, there are old toys, old songs recordings already available in the center, which can help in lower the new equipment installation cost. Four sets of toys are already available in the centre, while old songs can be freely searched and downloaded from internet. All the old toys and songs being used are from the 60’s, as subjects are at their young adults in 60’s.

Family photos will be provided by the subject’s families, with will be used by facilitators to arouse subjects’ memories and feelings. Costs involved will only be the printing costs and paper consumption costs.

Staff being involved includes two registered nurses. The cost of hiring registered nurses to run a session will be waived since the manpower is already available in the residential home ($170/hour × 2hours/session × 8 sessions × 4 times a year =10880 × 2 nurses = $21760 . Moreover, $5120 is saved as a clerk is available in data
interpretation, collection and data input ($80/hour × 2 hours/session × 8 sessions × 4 times a year = $5120). As in-house staff will be recruited instead of hiring new staff. All the above waived items contributes to the benefits of the new implementation.

Since the program can assist client in the psychosocial aspect, the medication being needed from healthcare sector can be decreased, which in turn can help the organization to save the cost of running the program. All the cost and benefit of the proposed program are being shown in the following tables.

**Table 2: Costs of new implementation of RT for 24 clients in 12 months**

<table>
<thead>
<tr>
<th>Material needed</th>
<th>cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program venue</td>
<td>No extra cost, item available already</td>
</tr>
<tr>
<td>Equipment (DVDs, toys, photos)</td>
<td>No extra cost, item available already</td>
</tr>
<tr>
<td>Extra papers for printing and forms</td>
<td>- papers A4 size papers × 500 sheets × 5 stacks: 5×$20 each stack = 100 - printer ink: $500 × 2 packs = $1000</td>
</tr>
<tr>
<td>Total cost</td>
<td>$1100</td>
</tr>
</tbody>
</table>
Table 3: Benefits and cost effectiveness of new implementation of RT for 24 clients in 12 months

<table>
<thead>
<tr>
<th>Staff salary (Wavied)</th>
<th>Two Registered Nurses 8 sessions, carry out 4 times in a year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$170/hour × 2hours/session × 8 sessions × 4 times a year = $10880 × 2 nurses = $21760.</td>
</tr>
<tr>
<td>Staff salary (Wavied)</td>
<td>Clerk: 8 sessions, carry out 4 times in a year</td>
</tr>
<tr>
<td></td>
<td>$80/hour × 2hours/session × 8 sessions × 4 times a year = $5120</td>
</tr>
<tr>
<td>Saved medical expenses</td>
<td>Save $950 medical visit per year × 24 clients = 22800</td>
</tr>
<tr>
<td>Total benefits</td>
<td>26880</td>
</tr>
<tr>
<td>Cost-benefit ratio</td>
<td>$1100 / 26880 = 0.041</td>
</tr>
</tbody>
</table>
Chapter 4  Evidence based practice guidelines: an Overview

4.1 Guideline Title

Clinical guideline for using reminiscence therapy among people with dementia in residential homes.

4.2 Objective of the Guidelines

The name of the proposed program is “Clinical guideline for using reminiscence therapy among people with dementia in residential homes.” The objective of the Guideline is to provide a structured program and guideline for nurses to assist the demented older adults, other than non-pharmacological methods, to improve the subjects’ depression level.

4.3 Recommendations for Reminiscence Therapy Program

Recommendation 1.0

Reminiscence Therapy should target to those with mild to moderate dementia and above. Those who suffered from major psychiatric disorders will be excluded (Grade A).

Available evidence:

The target population for the intervention group should be elderly with mild to moderate degree of dementia, without major psychiatric disorders (Lai et al., 2004) (1++). Clients recruited were aging above 65 years old with mild dementia (Su, et al, 2011) (1+).
Participants in the intervention group were elderly with mild to moderate rating in dementia, with mean age of 82.5 years old (Tadaka et al., 2007) (1+).

**Recommendation 2.0**

The Reminiscence Therapy will be operated in group format. A group of six will be used (Grade A).

**Available evidence:**

Group intervention was used in a group of 6 (Tadaka et al., 2007) (1+).

Group intervention let them to promote self-awareness, convey positive feelings and meaningful process to enhance their quality of life in remaining days (Tadaka et al., 2007) (1+).

Group intervention will be more likely to obtain a higher level of well-being after the implementation period than the comparison individual training group (Lai et al., 2004) (1++).  

**Recommendation 3.0**

The contents of the 8 sessions are: introduction of nurses and clients, childhood and family, schooldays, working life, marriage, home, favorite food, children and next generation, festivals, evaluation and ending session (Grade A).
The whole proposed program will last for 8 sessions. In the first session, two nurses will try to get the 6 subjects to introduce themselves to each other in the therapeutic group.

In the first session, nurses try to get everyone to get to know each other. In the second session, the theme is childhood and family. Two nurses will lead the group by showing pictures of clients’ childhood and their families. Then the nurses will try to involve the recruited subjects to share their feelings or experiences in their childhood and families.

In the rest of the sessions, nurses will continue to lead the group and try to involve all the recruited subjects for discussion on different theme topics.

Available evidence:

Prompts and themes are used to relate to participants’ life experiences such as childhood and favorite food (Tadaka et al., 2007) (1+).

Topics of the reminiscence therapy include those which are significant and meaningful to clients (Azcurra et al., 2012) (1+).

Knowing each other, childhood and family, previous employment and making living, old friends, child raising and achievements are topics being chosen (Su et al., 2012) (1+).

Topics of therapeutic sessions include childhood experiences, favorite food festivals, my family, my achievements (Wang et al., 2007) (1+).

Childhood and family, previous employment, old friends, child raising, personal achievements are core components of the intervention (Lai et al., 2004.) (1++)
Recommendation 4.0

Reminiscence therapy program will last for 8 weeks, each session lasts for one hour (Grade A).

Available evidence:

Once per week, for 8 weeks, each session lasts for one hour (Tadaka et al., 2007) (1+).

Group intervention, once a week for 8 weeks, each session lasts for one hour (Tadaka et al., 2007) (1+).

3 sessions a week for 24 weeks, each session lasts for two hours (Su et al., 2012) (1+).

Once per week, whole implementation lasts for 8 weeks, each session last for one hour (Wang et al., 2007) (1+).

Recommendation 5.0

All facilitators should possess medical or health care professional experiences or background, with years of experience in community or dementia care service. The nurses being chosen can be either from psychiatric, geriatric or public health sector.

Available evidence:

Four members from the research team were all experienced healthcare professionals. 14 nursing students were recruited to look after the participants’ needs and provide assistance and encouragement to them throughout the session (Su et al., 2012) (1+).
Facilitators were specialists in public health settings, and had been caring for elderly people with dementia and being trained in group program techniques (Tadaka et al., 2007) (1+).

Leaders and co-leaders were nurses specialized in psychiatric field for several years (Hsieh et al., 2010) (1+).

Recruited three registered nurses and nine graduate nurses to be the researchers and raters (Lai et al., 2004) (1++).

Psychologists who had experiences in working with demented or handicapped elderly were recruited as facilitators (Azcurra, 2012) (1+).

**Recommendation 6.0**

*Group intervention should be preferred to be the intervention format (Grade A).*

Available evidence:

Subjects in the intervention group had great positive changes on GDS compared with one to one interview in a control group (Su et al., 2012)(1+).

Great improvement shown in residents in the intervention group (Azcurra, 2012)(1+).

**Recommendation 7.0**

*Setting of the proposed intervention is in Residential Care Home (Grade A).*

The prevalence of dementia in long term institutionalized clients are high, thus reminiscence therapy can be applied in residential home care centers (Su et al., 2012)(1+).
A specific reminiscence program would lead to positive changes for residential home residents with dementia (Lai et al, 2007).

**Recommendation 8.0**

**Regular Review of Clients’ Condition**

As elderly retired from work and aged, they experienced psychosocial problems as they lose the social role of being involved in working class, while demented elderly with depression have a higher chance of getting more disabled in daily living, the goal of the proposed reminiscence therapy is to strengthen self-identity, mood stabilization and improve social well-being by involving elderly in a series of lessons on a regular basis.

Upon regular review on clients’ condition, any improvement on clients’ situation can help registered nurses to confirm the effectiveness or worthiness of the recent guidelines’ applications, while other deterioration in client’s depression level may suggest further investigation is needed, as the worsening of depression level may be due to either the client’s physical wellness or ineffectiveness or the program.
Chapter 5

Plans for Communication and Pilot Testing

In the previous chapters, sufficient information was provided and had been proven that reminiscence therapy is feasible to be carried out in the chosen private elderly residential home, and the proposed program is beneficial to the health of the targeted clients. In this chapter, there will be further discussion on the communication planning with potential users. Moreover, pilot testing will be discussed. In the final part, we will focus on the evaluation. There will be identification of participants and healthcare providers’ outcomes, determination of the nature and number of clients to be involved, timing and method of measurement that will be taken. At last, method of data analysis and the basis for an effective guideline will be proposed.

5.1 Communication Plan

5.1.1 Identification of Potential Users

Implementation plan includes communication plan. Communication plan includes all kinds of channels such as the written documents, incoming and outgoing phone calls, internet emails, and the mobile phone communication and messages. There are a few stakeholders being involved in the communication plan, including the superintendent, assistant superintendent, registered nurses, and other health care assistants. The most important stakeholder is the superintendent of the nursing residential home. The
superintendent is in charge of the approval of the implementation of the proposed reminiscence program. She will consider manpower arrangement, schedule of elderly activities and resource allocation. She also monitors the quality of services being provided to the targeted elderly, and ensures the feasibility and the continuity of the reminiscence program. The Assistant Superintendent is the second stakeholder who takes part in the communication plan. She collaborates closely with the Superintendent, by suggesting ideas and providing opinions to her concerning all kinds of RCH issues. She also helps the Superintendent in considering manpower arrangement, schedule of elderly activities and resource allocation, as she works more closely with the frontline staff and understand their difficulties more.

Two experienced registered nurses who agreed to take part in the proposed program will be consulted. Two experienced nurses may have concerns about the redistribution of work, the efficacy of the program, the benefits gained by the elderly as resulted of their participation in the program, and the preparation work that is needed for carrying out the reminiscence program. Two registered nurses may also be concerned with the complexity of the program and the pressure that they may be put under in the future.

The other potential users concerned are the older adults who are eligible and opt to participate in the program. The relatives of the recruited elderly are also concerned with the feasibility of the program and the potential benefits it may bring to the clients.
5.1.2 Process of communication

Support from the stakeholders can be gained through a clear explanation of the vision of the program and the provision of the evidence. While proposed program committee are the researchers of the reminiscences therapy program. During the first meeting between the proposed program committee and the stakeholders, the proposed program committee will reinforce the message that there will be minimal change of workload or impact on their work when the program is implemented. The transferability of findings, feasibility of implementation and cost benefit ratio of the innovation will be presented in detailed by using a PowerPoint during the first meeting, so that confidence and trust can be built between all parties. In addition, the stakeholders are encouraged to express their opinion, so that consensus can be obtained, and certain changes can be made according to their opinion or suggestions. When the formal authorization from the superintendent is obtained, a file including a complete set of guidelines and proposed program will be provided for each administrator and also potential users. A schedule of the proposed reminiscence program will be included in the booklets for their quick reference.

5.12.1 Clear vision and initiate the change

To initiate the change, the proposers of the proposed project will hold a first meeting with the stakeholders to explain the need for change. During the first meeting, the
The program committee will give PowerPoint presentation to address some of the issues with the current practice, the rationale behind the proposed change and the major components of the proposed program.

5.1.3 Evidence from the literature

Apart from informing the stakeholders about the need of change, the proposers of the proposed program will also suggest the expected accomplishment of the intervention. The Randomized-controlled studies showed that the participants who received reminiscence therapy session had significantly decreased their depression level when compared with participants who received other usual nursing routine such as bathing, mild exercises or informal social interactions (Azcurra et al., 2012, Hsieh et al., 2010, Lai et al, 2004; Su et al., 2012, Wang et al, 2007, Tadaka et al., 2007). It is also expected that reminiscence therapy could increase the subjects’ self-efficacy as the sessions encourage them to think about the good old days (Wang et al, 2007).

5.1.4 Guide the change

A clear vision and direction has to be delivered to all the stakeholders in order to guide the change in week 1. Recruitment of participants will be carried out in week 2 to week 5. Frontline nurses should possess adequate skill to carry out the program as facilitators. Therefore prior to the pilot testing program, a two-hour in-house training session will be provided to the frontline nurses in week 6. Although the frontline
nurses being selected into the program are experienced in the geriatric field, program committee has to inform the nurses about the concept and purpose of the new program clearly. All facilitators should have the right attitude, hold the same principle and belief towards the proposed program. Therefore an in-house training session provides facilitators with a good opportunity to clarify any doubts or concern about the new proposed program. As a result, it is expected that all the facilitators share the same goal of the program.

5.1.5 Sustain the change

During the implementation of the new program (week 7-week 14), the changes made to the clinical setting may pose certain stress onto the stakeholders or the frontline staff. Therefore continuous and regular review or meetings are necessary, in order to provide a platform for all the administrators and facilitators to express their difficulties or voice out their opinions. Holding regular meetings also allow evaluation to take place, one which will serve as a good opportunity for the program committee to assess nurses’ compliance with the new guideline. Sharing session on success stories will be arranged. Individual patient's progress or behavior can be discussed and further assessment on the effectiveness of the innovation can be carried out. Making certain modifications and adjustments to the new guideline based on evidence or comments collected can lead to desirable results. Also, support between parties and mutual agreements can be made in
regular meetings.

5.2 Pilot Testing

The aim of pilot testing is to check the feasibility of the proposed intervention. There is a need for the proposers to review the results of the pilot study, so as to make decisions on changing the strategies for improvement. After suitable adjustments are made, the actual implementation of the proposed program can be ready to take place.

Pilot testing should include the following areas: the feasibility of the new guideline; the feasibility of executing the outcome measures and the issue of manpower or resources.

5.2.1 Pilot testing procedure

Meetings with the organization’s staff will be scheduled twice a week in week 1 and week 2, and will inform them about the purpose and timeline of the whole program and guidelines (Table 2), with detailed explanation of the purpose of the pilot testing. The recruitment of potential clients is based on inclusive criteria and exclusive criteria as stated in the evidence-based guideline (week 3-5). The recruitment procedure will be finished by week 5 as planned. The recruitment process will be carried out by the interventionists of the program, and consent will be obtained from the subjects. The number of recruited subjects is expected to be 6 in the reminiscence therapy group. The program will begin in week 7 and will be carried out for the following 8 weeks, being facilitated by two registered nurses.
5.2.2 Pilot testing evaluation

The process of pilot testing will be evaluated. In the process evaluation, raters will evaluate the interaction, communication between participants and facilitators in each session from week 7 to week 14. Performance of the nurses will also be video-taped. Data collection on GDS scores on each participant during the recruitment (week 3 to week 5), right after all the intervention sessions (week 14), and 4 weeks post intervention (week 18) will be done by a trained registered nurse. Pilot testing will test the feasibility on the number of participants in one group. Certain rearrangement may need to be made if some unexpected situation comes up during therapeutic sessions.

Individual interviews will be arranged for the trained facilitators every two weeks during the pilot testing program (week 8, week 10, week 12, week 14). The main purpose of the individual interview group is to gather their opinion and beliefs towards the reminiscence therapy. Nurses will be encouraged to share their positive or negative experience in conducting the reminiscence program, their observations towards the elderly’s behaviors, and the difficulties or obstacles they encountered. The Superintendent will monitor the management of manpower, and determine if further rearrangement and allocation of workforce is needed in the further implementation (week 18). After gathering all the relevant information, a review on the result of the pilot testing will be done by the project committee, appropriate changes or revision in the
guidelines by the project committee will be made for future actual implementation.

5.3 The Evaluation Plan

In this chapter, outcomes to be identified, ways for making measurement, nature of clients to be involved, number of clients to be determined and method of data analysis will be described.

5.3 Outcome identification

To evaluate the effectiveness of the reminiscence therapy, both patient outcomes and the healthcare provider outcomes will be measured.

5.3.1 Patient outcomes

5.3.1.1 Depression level will be measured

Measuring the level of pleasure or well-being of elderly with dementia is important, but people usually focus on cognitive function of the client only (Lai et al., 2004). As the greatest psychiatric morbidity among the older adults with mild to moderate dementia depression, which accounts to 25%, depression is severe in demented elderly (Su et al., 2012; Wang et al., 2007). Reminiscence therapy can improve the depression symptoms by implementing reminiscence therapy (Hsieh et al., 2010).

To measure the depression level for the elderly, the Geriatric Depression Scale (GDS) was developed (Table 3). It is a reliable screening tool for the elderly with depression and it is considered to have a high reliability (Hsieh et al., 2010). In our proposed
program, Geriatric Depression Scale Short Form (GDS-SF) Chinese version will be used, as the inter-rater agreement of the GDS Chinese version has a high internal consistency of 0.89, test re-test reliability was 0.85 and it was considered to be satisfactory (Wang et al., 2007; Sheikh et al., 1984). The GDS Chinese version is attached as Table 4 below.

There are 15 items in the GDS-SF. Each item can be answered “Yes” or “No”. Scoring ranged from 0 to 15. The cut off point is 7. Any scoring equal or more than 8 indicates numerous depressive symptoms (Wang et al., 2007).

5.3.2 When and How to take measurement

Two Registered Nurses who are assigned to be the facilitators will be in charge of selecting the eligible clients by screening their Kardex at nursing station. Clients who fulfill the inclusion criteria and who do not meet the exclusion criteria will be invited to participate in the reminiscence therapy. Registered nurses will get their consent. The Geriatric Depression Scale (GDS) will be measured at two points, pre-test and post-test. Measurement of the depression level will be taken at the point of recruitment upon obtainment of client’s consent (T0), where as a baseline value can be taken. According to the selected articles’ recommendation, the evaluation should be done immediately after all intervention sessions (T1). Evaluation on any long lasting effect of the intervention should be done in the post-intervention period in week 12 counting from the start of the whole program (Tadaka et al., 2007; Lai et al, 2004; Azcurra et al., 2012, Hsieh et al.,
2010). The evaluation taken in week 12, which is 4 weeks after the completion of the whole intervention, is to evaluate if there is any positive effect of the program after the session has been finished.

5.4 Participants

Clients will be selected based on the inclusion and exclusion criteria. Clients who are demented at mild to moderate level of dementia and staying in the targeted residential care home will be selected. Facilitators are suggested to recruit eligible clients based on the diagnosis made by doctors earlier on when they were admitted or during the most recent medical follow up. only those with hearing and visual problems will be excluded. Other data such as demographic data, length of stay in residential homes, age and type of dementia will be collected.

5.6 Data Analysis

The outcome measures are being stated earlier on, including the Geriatric Depression Scale (GDS). The time for collection of data includes the beginning of the program upon consent obtained, any immediate effect obtained (8 weeks right after the whole program ends), and for analyzing the any longer lasting effect (4 weeks after the whole program ends). A two tail t-test will be used to compare the two post-intervention measures and pretest. The aim is to determine the changes in the depression level in the
Basis for an effective guideline

Participants’ Outcomes

The primary outcome for our proposed program is depression level. The level of significance is 0.05 and the mean difference is 95% confidence interval. If there is a significant decrease in the GDS score, at least 1 to 1.5 score, of the p-value less than 0.05 (p<0.05) after the implementation of the program, it will suggest the program is effective (Tadaka et al., 2007; Lai et al). Evaluation on participants’ depression level will be done right after the whole implementation of the whole program, and 4 weeks after the intervention. The effect of the proposed program is expected to last for 4 weeks after the intervention (Tadaka et al., 2007; Lai et al, 2004).

5.8 Conclusion

In this charter, plans for communication and pilot testing are discussed. Potential users have been identified. Further more, outcome identification is shown, while measurement involved such as GDS-SF and healthcare facilitators’ outcome measure tools have been discussed. Nature and number of participants have also been mentioned.
Chapter 6

Conclusion

Dementia has a high prevalence in worldwide as well as in Hong Kong. Demented clients often suffer from depression, which will become a social burden as well as caregivers’ stress. Currently, there is no evidence-based guideline for holding lessons or activities which can help the interested population in lowering the depression level using non-pharmacological means.

This proposed program is developed based on results from six literature reviews. All selected literatures reviews are well conducted RCT and highly graded under SIGN system. Studies show there are positive effects on depression level among demented clients in residential homes, as the CDR shows significant decrease in four out of six studies. In terms of assessment of methodology of the reviewed studies, four out of six reviewed articles were rated 1+, while two other articles were rated 2++ according to the SIGN rating system. Proposed program are shown to be at high feasibility and well supported by administrative staff, while cost incurred are well covered by benefits that will be gained through the implementation or proposed program. Also, the setting and target population are shown to be suitable for implementation of the proposed program. While the current registered nurses are ready to carry out the new implementation, as workload being added on to them are not much. Communication between proposers and
stakeholders will maintain throughout pilot testing and implementation period, in order to
make sure opinions of frontline registered nurses are heard and proposed program can be
refined as suggested by interventionists. After further pilot testing and plans for
communications, implementation of actual proposed program can be carried out.

It is expected that if the implementation of the proposed program is successful,
reminiscence therapy can be further promoted and introduced to other branches of the
organization
References:


approach to promote the well-being of nursing home residents with dementia.

*International Psychogeriatric* 16(1): 33-49.


The Legislative Council,

Tables
Table 1: Geriatric Depression Scale short-form (GDS short-form)

Choose the best answer for how you have felt over the past week:

1. Are you basically satisfied with your life? YES / NO
2. Have you dropped many of your activities and interests? YES / NO
3. Do you feel that your life is empty? YES / NO
4. Do you often get bored? YES / NO
5. Are you in good spirits most of the time? YES / NO
6. Are you afraid that something bad is going to happen to you? YES / NO
7. Do you feel happy most of the time? YES / NO
8. Do you often feel helpless? YES / NO
9. Do you prefer to stay at home, rather than going out and doing new things? YES / NO
10. Do you feel you have more problems with memory than most? YES / NO
11. Do you think it is wonderful to be alive now? YES / NO
12. Do you feel pretty worthless the way you are now? YES / NO
13. Do you feel full of energy? YES / NO
14. Do you feel that your situation is hopeless? YES / NO
15. Do you think that most people are better off than you are? YES / NO
### Table 2. Geriatric Depression Scale short-form / GDS short-form

老人抑鬱短量表 (Geriatric Depression Scale short-form / GDS short-form)

以下的問題是人們對一些事物的感受，答案沒有對與不對。在過去一星期内，你是否曾有以下的感受。如有的話，請在「是」給予「√」，若無的話，請在「否」給予「⊥」。

<table>
<thead>
<tr>
<th>問題</th>
<th>是</th>
<th>否</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 你基本上對自己的生活感到滿意嗎？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. 你是否已放棄了很多以往的活動和嗜好？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. 你是否覺得生活空虛？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. 你是否常常感到煩悶？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. 你是否很多時感到心情愉快呢？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. 你是否害怕將會有不好的事情發生在你身上呢？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. 你是否大部份時間感到快樂呢？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. 你是否常常感到無助？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. 你是否寧願留在院舍/屋企裡，而不出外做些有新意的事情？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. 你是否覺得你比大多數人有多些記憶的問題呢？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. 你認為現在活著是一件好事嗎？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. 你是否覺得自己現在一無是處呢？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. 你是否感到精力充足？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. 你是否覺得自己的處境無望？</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. 你覺得大部份人的境況比自己好嗎？</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
總分
給予一分如以下題目「是」： 2, 3, 4, 6, 8, 9, 10, 12, 14, 15
給予一分如以下題目「否」： 1, 5, 7, 11, 13
得分越高顯示受訪者的抑鬱狀況越明顯。
總分達 8 分或以上，顯示受訪者可能有抑鬱症，需轉介老人精神科作進一步診斷及評估。
### Table 3. Results of the search of primary studies

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>(1) Reminiscence OR Reminisce*</td>
<td>849</td>
<td>10524</td>
<td>119</td>
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<tr>
<td>(2) Therapeutic OR therapy</td>
<td>7205058</td>
<td>7680149</td>
<td>2462578</td>
<td></td>
</tr>
<tr>
<td>(3) Dementia OR Alzheimer disease</td>
<td>693401</td>
<td>543496</td>
<td>101736</td>
<td>---</td>
</tr>
<tr>
<td>(4) Depression</td>
<td>14353</td>
<td>152979</td>
<td>4898</td>
<td>---</td>
</tr>
<tr>
<td>(5) (1) AND (2) AND (3) AND (4)</td>
<td>37</td>
<td>10</td>
<td>43</td>
<td>90</td>
</tr>
<tr>
<td>Limit to English and Full Text And Primary Studies</td>
<td>34</td>
<td>10</td>
<td>38</td>
<td>---</td>
</tr>
<tr>
<td>By manually screening relevant title and abstracts and reference lists among studies</td>
<td>20</td>
<td>9</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>Limit to inclusion criteria and Eliminate copies using Exclusion criteria</td>
<td>9</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Eliminate duplicated copies (copies left)</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>6</td>
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<tr>
<td>Final number of journals</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>6</td>
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</table>
Table 4

Table of Evidence
Table 4. Table of Evidence

<table>
<thead>
<tr>
<th>Bibliographic citation</th>
<th>Study type</th>
<th>Evidence Level</th>
<th>Participant characteristics</th>
<th>Intervention Group (IG)</th>
<th>Comparison Group (CG)</th>
<th>Length of follow up</th>
<th>Outcomes (tools)</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azcurra et al., 2012</td>
<td>RCT, single blinded, parallel-groups</td>
<td>+</td>
<td>- Client with dementia (n = 135) Subjects evenly distributed in 3 groups Mean age: 85, race: White, Black; Type of dementia: AD MMSE: mean score: 14 Without major psychiatric disorders, without acute or unstable chronic medical conditions, with normal hearing and eye sight</td>
<td>- related to old days topic, but not specified Use of objects: photographs, recordings, newspaper clippings - Individual sessions (24 sessions, 1 hour per session, 2 sessions per week for 12 weeks)</td>
<td>Active Control Group: counseling and informal social contacts Passive Control Group: unstructured social contact</td>
<td>Baseline (T0) 3 months(T1, 12 weeks) 6 months (T2, 24 weeks)</td>
<td>(1) Quality of life (SRQoL) (2) Well-being (WIB) (3) Activity of daily living (ADL) (4) Social Engagement Score (SES) (5) Caregiver’s burden - Zarit Burden Interview (ZBI)</td>
<td>In intervention group (IG), SRQoL increase from T0 23.3 to T1 27.1 to T2 34.6; p&lt;0.05, effect size &lt;0.01 No significant improvements were shown in other measure outcomes WIB, ADL, ZBI in all groups (p&gt;0.05) SES increase from T0 3.4 to T1 4.0 p&lt;0.05, effect size &lt;0.01</td>
</tr>
<tr>
<td>Bibliographic citation</td>
<td>Study type</td>
<td>Evidence Level</td>
<td>Participant characteristics</td>
<td>Intervention Group (IG)</td>
<td>Comparison Group</td>
<td>Length of follow up</td>
<td>Outcomes (tools)</td>
<td></td>
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</tr>
<tr>
<td>Hsieh et al., 2010</td>
<td>RCT</td>
<td>+</td>
<td>- Client with dementia (n = 61) Mean age: 77, race: Chinese; Type of dementia: AD and VD Without delirium, no hearing problem.</td>
<td>Friendships, work, and other significant event. - Group sessions (8 sessions, &lt;1hr :45-50 minutes per session, 1 session/week, for 12 weeks)</td>
<td>Routine day care: mild exercise, no specific group activities</td>
<td>24 weeks (12 weeks after intervention)</td>
<td>(1) Apathy (AES-C) (2) depression (GDS) (3) neuropsychiatric disorders. (NPI)</td>
<td></td>
</tr>
</tbody>
</table>

(1) significant decrease in the AES-C mean value from pre-test (17.79) to post-test (17.24), with p<0.05 effect size=0.003
(2) significant decrease in the GDS mean value from pre-test (7.79) to post-test (6.41), with p<0.05 effect size=0.003
(3) significant decrease in the NPI depression mean value from pre-test (2.81) to post-test (1.11), with p<0.05 effect size=0.0028

All values in outcome measure in control group do not show any significant effect.
<table>
<thead>
<tr>
<th>Bibliographic citation</th>
<th>Study type</th>
<th>Evidence Level</th>
<th>Participant characteristics</th>
<th>Intervention Group (IG)</th>
<th>Length of follow up</th>
<th>Outcomes (tools)</th>
<th>Effect size / Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lai et al., 2004</td>
<td>RCT</td>
<td>++</td>
<td>- Client with dementia (n = 101) Intervention (n=36) Control group (n=30) Comparison group(n=35) Mean age: 85.6, race: Chinese Type of dementia: not specified MMSE: mean score:9.3</td>
<td>Knowing each other, childhood and family, previous employment and making living, old friends, child raising, achievements. - Group sessions (6 sessions, half an hour per session, one session per week, for 6 weeks)</td>
<td>Baseline: T0 T1: immediately after intervention After T2: 12 weeks (6 weeks post intervention</td>
<td>(1) Wellbeing (WIB) (2) depression (GDS)</td>
<td>Significant results in outcomes of intervention group between T1 and T0 in WIB scores. Significant results in outcomes of intervention group between T2 and T0 in WIB scores, reached power of 80% (2) significant decrease in the GDS mean value from pre-test (8.20) to post-test (7.51), with p&lt;0.05</td>
</tr>
<tr>
<td>Bibliographic citation</td>
<td>Study type</td>
<td>Evidence Level</td>
<td>Participant characteristics</td>
<td>Intervention Group (IG)</td>
<td>Comparison Group (CG)</td>
<td>Length of follow up</td>
<td>Outcomes (tools)</td>
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<tr>
<td>Su et al., 2012</td>
<td>Randomized Longitudinal Quasi Experimental Single-blinded</td>
<td>+</td>
<td>- Client with dementia (n = 129) Mean age: 78, race: Chinese Type of dementia: not specified MMSE: mean score:20 Subjects with severe dementia were excluded</td>
<td>Knowing each other, childhood and family, previous employment and making living, old friends, child raising, achievements.</td>
<td>Control Group (CG): One to one simple supportive interview</td>
<td>24 weeks, immediately after last session ended</td>
<td>(1)Cognitive level: using : Mini Mental State Examination (MMSE) (2) Depression: using Geriatric Depression Scale—Short Form (GDS-SF)</td>
</tr>
<tr>
<td>Bibliographic citation</td>
<td>Study type</td>
<td>Evidence Level</td>
<td>Participant characteristics</td>
<td>Intervention Group (IG)</td>
<td>Comparison Group (CG)</td>
<td>Length of follow up</td>
<td>Outcomes (tools)</td>
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<tr>
<td>Tadaka et al., 2007</td>
<td>Randomized Controlled Trial</td>
<td>+</td>
<td>Client with dementia (n = 78) Mean age: 85, race: Japanese Type of dementia: 24-Alzheimer Disease (AD), 36-Vascular dementia (VD)</td>
<td>-Childhood, favorite food, (no other specific topics mentioned) with use of subjects such as food smell or let them touch - Experimental Group (EG) sessions (8 sessions, 1 hour to 1 and a half hour per week, for 8 weeks)</td>
<td>Control Group (CG): Routine day care: mild exercise, meals bathing, no specific group activities</td>
<td>Baseline, immediate and after 6 months</td>
<td>(1)Cognitive level: using : Mini Mental State Examination (MMSE) (2) Depression, withdrawal irritability: Multi-dimensional Observation Scale for Elderly (MOSES)</td>
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</tbody>
</table>
significant effect on other outcome measures in both groups. However, IG shows better improvements in all outcomes measures when compared with CG immediately after therapy and after 6 months.
<table>
<thead>
<tr>
<th>Bibliographic citation</th>
<th>Study type</th>
<th>Evidence Level</th>
<th>Participant characteristics</th>
<th>Intervention Group (IG)</th>
<th>Comparison Group (CG)</th>
<th>Length of follow up</th>
<th>Outcomes (tools)</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wang et al., 2007</td>
<td>RCT</td>
<td>+</td>
<td>- Client with dementia (n = 102) Subjects evenly distributed in 2 groups IG (n=51) CG(n=51) Mean age: 78, race: Chinese; Type of dementia: not stated CDR: mean score:1.5 Without major psychiatric disorders, normal hearing and vision</td>
<td>- Childhood experiences, older flavor of food, old style music, festivals, my family, my achievements Use of objects: old time music, household items, old photographs</td>
<td>Routine day care: mild exercise, meals bathing, no specific group activities</td>
<td>9 weeks (whole sessions duration 8 weeks, post test done in 1 week after last session)</td>
<td>(1) Cognitive function: Mini Mental State Examination (MMSE) (2) Depression: Cornell Scale for Depression in Dementia (CSDD) (3) Depression: Geriatric Depression Scale—Short Form (GDS-SF)</td>
<td>- Results: reminiscence therapy improves both cognitive function (MMSE) as well as lowering depression level (CSDD). MMSE : IG pretest 14.33 Post-test 16.08 CG pre-test 14.33 Post-test 14.20 Group effect p&lt;0.05 effect size=0.015 CSDD : IG pretest 7.37 Post-test 6.23 CG pre-test 7.31 Post-test 9.14 Group effect p&lt;0.05 effect size=0.026 GDS-SF : IG pretest 7.09 Post-test 6.02 CG pre-test 6.61 Post-test 6.63</td>
</tr>
<tr>
<td>Group effect p&gt;0.05 effect size=0.123 (result not significant)</td>
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<td>Table 5. Appraisal Tool for Randomized Controlled Trials</td>
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<tr>
<td>Methodology Checklist: Controlled Trials</td>
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<tr>
<td>(SIGN) Section 1: Internal</td>
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</table>

<table>
<thead>
<tr>
<th>Method</th>
<th>Azcurra et al., 2012</th>
<th>Hsieh et al., 2010</th>
<th>Lai et al., 2004</th>
<th>Su et al., 2012</th>
<th>Tadaka et al., 2007</th>
<th>Wang et al., 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>The study addresses an appropriate and clearly focused question.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>The assignment of subjects to treatment groups is randomized</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>An adequate concealment method is used</td>
<td>Can’t tell</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Can’t tell</td>
<td>Can’t tell</td>
</tr>
</tbody>
</table>

- Yes: With clear stated study population, intervention and outcome
- Can’t tell: Not mentioned
<table>
<thead>
<tr>
<th>Subjects and investigators are kept ‘blind’ about treatment allocation.</th>
<th>Can’t tell</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Can’t tell</th>
<th>Can’t tell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not mentioned</td>
<td>Single blinded method used for investigators.</td>
<td>Single blinded method used for investigators.</td>
<td>Single blinded method used for investigators.</td>
<td>Not mentioned</td>
<td>Not mentioned</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The treatment and control groups are similar at the start of the trial.</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>All subjects are at similar age, education level and Clinical Dementia Rating</td>
<td>All subjects are at similar demographic characteristics</td>
<td>All subjects are at similar demographic characteristics</td>
<td>All subjects are at similar demographic characteristics</td>
<td>All subjects are at similar demographic characteristics</td>
<td>All subjects are at similar demographic characteristics</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The only difference between groups is the treatment under investigation.</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment is the only difference between groups</td>
<td>Treatment is the only difference between groups</td>
<td>Treatment is the only difference between groups</td>
<td>Treatment is the only difference between groups</td>
<td>Treatment is the only difference between groups</td>
<td>Treatment is the only difference between groups</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All relevant outcomes are measured in a standard, valid and reliable way</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using MMSE and MOSES, which reported to be high reliability</td>
<td>Using SES, ZBI, MMSE SRQoL were reported to be has high reliability, however, not mentioned for WIB</td>
<td>WIB being tested by Bradford Dementia Group and widely used in many countries. Both WIB and SES being rated high validity in Hong Kong.</td>
<td>Using MMSE, GDS-SF, were reported to have high reliability and validity</td>
<td>Using MMSE and MOSES, which reported to have high reliability</td>
<td>Using MMSE, CSDD, GDS-SF, were reported to have high reliability and validity</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>10 out of 60 dropped out of study=17%</td>
<td>5 out of 135 dropped out of study=4%</td>
<td>7 out of 47 dropped out of study=15%</td>
<td>9 out of 102 Dropped out of study=9%</td>
<td>10 out 60 of dropped out of study=17 %</td>
<td>10 out 102 of dropped out of study=9.8 %</td>
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</tr>
<tr>
<td>What percentage of the individuals or clusters recruited into each treatment arm of the study dropped out before the study was completed</td>
<td>10 out of 60 dropped out of study=17%</td>
<td>5 out of 135 dropped out of study=4%</td>
<td>7 out of 47 dropped out of study=15%</td>
<td>9 out of 102 Dropped out of study=9%</td>
<td>10 out 60 of dropped out of study=17 %</td>
<td>10 out 102 of dropped out of study=9.8 %</td>
</tr>
<tr>
<td>All the subjects are analyzed in the groups to which they were randomly allocated (often referred to as intention to treat analysis)</td>
<td>Can’t tell Not mentioned</td>
<td>Can’t tell Not mentioned</td>
<td>Yes Stated clearly in Discussion part</td>
<td>Can’t tell Not mentioned</td>
<td>Can’t tell Not mentioned</td>
<td>Can’t tell Not mentioned</td>
</tr>
<tr>
<td>Where the study is carried out at more than one site, results are comparable for all sites</td>
<td>No Study is only carried out in geriatric center in Tokyo, Japan</td>
<td>No Two private nursing homes with similar structure and function</td>
<td>No Two public funded nursing homes with similar structure and function</td>
<td>No Study only carried out in nursing institution in Taiwan</td>
<td>No Study only carried out in geriatric center in Tokyo, Japan</td>
<td>Can’t tell Five nursing home from public funded nursing homes with similar structure and function</td>
</tr>
<tr>
<td>SIGN</td>
<td>Azcurra et al., 2012</td>
<td>Hsieh et al., 2010</td>
<td>Lai et al., 2004</td>
<td>Su et al., 2010</td>
<td>Tadaka et al., 2007</td>
<td>Wang et al., 2007</td>
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</tr>
<tr>
<td>How well was the study done to minimize bias?</td>
<td>+ Appropriate focused question, with randomization of control and intervention.</td>
<td>+ Appropriate focused question, with randomization of control and intervention.</td>
<td>++ Appropriate focused question, with randomization of control and intervention.</td>
<td>+ Appropriate focused question, with randomization of control and intervention.</td>
<td>+ Appropriate focused question, with randomization of control and intervention.</td>
<td>+ Appropriate focused question, with randomization of control and intervention.</td>
</tr>
<tr>
<td>are you certain that the overall effect is due to the study intervention?</td>
<td>Yes</td>
<td>Statistical analysis using ANOVA, with Chi-square and Mann-Whitney U test</td>
<td>Yes</td>
<td>Statistical analysis using SPSS, with Chi-square and Mann-Whitney U test.</td>
<td>Yes</td>
<td>Statistical analysis using SPSS, Chi-square and Mann-Whitney U test.</td>
</tr>
<tr>
<td>Are the results of this study directly applicable to the patient group targeted by this guideline?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Table 7. **LEVELS OF EVIDENCE, FROM SIGN GRADING SYSTEM 1999 – 2012**

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1++</td>
<td>High quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias</td>
</tr>
<tr>
<td>1+</td>
<td>Well-conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias</td>
</tr>
<tr>
<td>1-</td>
<td>Meta-analyses, systematic reviews, or RCTs with a high risk of bias</td>
</tr>
<tr>
<td>2++</td>
<td>High quality systematic reviews of case control or cohort or studies</td>
</tr>
<tr>
<td></td>
<td>High quality case control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal</td>
</tr>
<tr>
<td>2+</td>
<td>Well-conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal</td>
</tr>
<tr>
<td>2-</td>
<td>Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal</td>
</tr>
<tr>
<td>3</td>
<td>Non-analytic studies, e.g. case reports, case series</td>
</tr>
<tr>
<td>4</td>
<td>Expert opinion</td>
</tr>
</tbody>
</table>
### Table 8. GRADES OF RECOMMENDATIONS, FROM SIGN GRADING SYSTEM 1999 – 2012

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
</table>
| **A.** | At least one meta-analysis, systematic review, or RCT rated as 1++, and directly applicable to the target population; *or*  
A body of evidence consisting principally of studies rated as 1+, directly applicable to the target population, and demonstrating overall consistency of results |
| **B.** | A body of evidence including studies rated as 2++, directly applicable to the target population, and demonstrating overall consistency of results; *or*  
Extrapolated evidence from studies rated as 1++ or 1+ |
| **C** | A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; *or*  
Extrapolated evidence from studies rated as 2++ |
| **D** | Evidence level 3 or 4; *or*  
Extrapolated evidence from studies rated as 2+ |