The effects of reminiscence on depressive symptoms and mood status of older institutionalized adults in Taiwan

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SUMMARY

Objective   This study examined the effects of reminiscence on depressive symptoms and mood status of elderly people residing in long-term care facilities.
Methods   A longitudinal quasi-experimental design was conducted, using two equivalent groups for pre-post test and purposive sampling. Each subject was administered pre- and post- tests at a 4 month interval, but subjects in the experimental group underwent weekly individual reminiscence therapy. Geriatric Depression Scale short form (GDS-SF) and Apparent Emotion Rating Scale (AER) were used as study instruments.
Results   Forty-eight subjects completed the study, with 25 in the experimental group and 23 in the control group. The experimental findings indicated that the experimental group demonstrated fewer depressive symptoms ($p < 0.05$) and better mood status ($p = 0.05$) on the post-test comparing to the control group.
Conclusion   These warranted that reminiscence therapy is a recommended therapy for older people who reside in care facilities. It can provide a basis for planning geriatric care in community to promote the well being and quality of life of older people. Copyright © 2004 John Wiley & Sons, Ltd.

KEY WORDS — reminiscence; depressive symptoms; mood status; elderly; Taiwan

INTRODUCTION

In Taiwan, people aged 65 and older currently represents 9.29% of the total population, and is expected to increase to 20.69% by 2027 (Ministry of Interior, 2004). With the continued growth of Taiwanese older population, their mental health became an issue of concern especially the high incidence of depression in Taiwanese elders. The prevalence of depressive symptoms was found to be 34% to 56% in studies conducted in Taiwan (Fuh *et al.*, 1997; Wang *et al.*, 2001). Also, the mental health needs of older adults in Taiwan are not being met and many Taiwanese elderly people who are separated from their children experience depression (Chang, 1998). Literature from the US indicates that the institutionalized elderly are less adaptive and benefit more from intervention than elderly living in the community (Cook, 1991). The health and quality of life of elderly people can be promoted through prompt problem recognition and prevention. Reminiscence therapy is one form of intervention that has been used to alleviate these psychological problems (Butler, 1963). Reminiscence is defined as recall of past events involving another person, with participants being encouraged to talk about these past events, often assisted by aids such as photos, music, objects and videos of the past (Orrell and Woods, 2001). Reminiscing is believed to be a meaningful intervention to Taiwanese older adults due to the political and economic transformation period in Chinese history they had experienced.

There are a variety of western researches examined the benefits of reminiscence for the elderly, and concluded that reminiscence generally reduces depression and confusion (Perrotta and Meacham, 1981; Bass and Greger, 1996; Sellers and Stork, 1997). Also, Fry (1983) conducted structured and unstructured reminiscence therapy groups to test their differential effects on subjects' depression, discovered that

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subjects in both groups reported more improvement than the no-treatment control subjects, and also reminiscence therapy helped the depressed elderly to focus on meaning in past life events. Youssef (1990) assessed the effect of group reminiscence on the level of depression of 60 elderly women residing in nursing homes, also concluded that the treatment did have an effect on the elderly people's level of depression. Arean et al. (1993) used 12 weekly sessions of reminiscence group treatment to treat depressed older adults and demonstrated an improvement at the post treatment and follow-up evaluation. In Taiwan, Hsiao et al. (2002) had conducted a reminiscence study and found that it can help subjects to lessen their depression level. This was the only study examining the effects of reminiscence on depressed institutionalized elderly in Taiwan, and only nine subjects participated in eight weekly sessions.

However, Hsieh and Wang (2003) conducted a systematic review among nine reminiscence studies and concluded that reminiscence therapy has varying effects on depression reduction for the elderly people. Although many studies demonstrated positive effects of reminiscence therapy, still other studies failed to show significant effects (Cook, 1991; Stevens-Ratchford, 1992). For instance, Cook (1991) investigated the efficacy of reminiscence to increase ego integrity in 54 elderly nursing home residents, concluded that there was no significant effect on elderly depression. In addition, several studies have suffered methodological problems or conditions that have limited the effectiveness of their achievement. From the systematic review, only Perrotta and Meachan (1981) and Fry (1983) used individual modality and more other studies used group modality. Most reminiscence therapy has conducted once or twice a week, from 3 to 16 weeks, and from 30 to 90 minutes per session. Moreover, the numbers of participants in a treatment group were 9 or 12 in most of the studies (Hsieh and Wang, 2003). Sellers and Stork (1997) proposed that dyad therapists should conduct 6 to 12 treatment sessions per patient comprising 20 to 30 minutes per treatment.

Unfortunately, Taiwan lacks psychological care to assist elderly individuals to develop to their full potential (Chang, 1998). Current health care systems are failing to meet the psychological needs of older adults. Nurses need to design therapeutic and innovative interventions, not only to prolong elderly lives, but to improve their quality of life. Attention to improving this care is essential, particularly in long-term care facilities where research has demonstrated that institutionalization can cause psychological deterioration (Chang, 1998). This study thus attempted to examine the effectiveness of reminiscence as a therapeutic modality for reducing depressive symptoms and improving mood status among the institutionalized elderly.

The theoretical foundation of this study was adapted from Butler's life review process and Erickson's developmental theory. Butler (1963) believes that ego integrity is attained through recalling one's past and an evaluative perspective. This process is called the life review, and Butler (1963) believes it is a universal mental process brought about by the realization of approaching dissolution and death. Erickson (1963) outlined eight stages of human development spanning the life cycle from birth to death. The final stage is ego integrity vs despair. The elderly must develop ego integrity, a sense of satisfaction with life and its meaning and a belief that life is fulfilling and successful. Erickson et al. (1986) also state that failure to integrate one's own life experiences is seen as contributing to his/her despair and depression. Reminiscence entails a progressive return to an awareness of past experiences, allowing salient life experiences to be reexamined and reintegrated. Therefore, older people reflect on their pasts to resolve or reintegrate.

Hypothesis

Can the reminiscence therapy reduce elderly peoples' depressive symptoms?

Can the reminiscence therapy improve elderly peoples' mood status?

Definition of terms

Depressive symptoms were characterized as sadness, low mood, pessimism, self-criticism and self-blame, retardation or agitation, slow thinking, poor concentration, and appetite and sleep disturbances. Depressive symptoms was measured by the GDS-SF (Chan, 1996). Mood status denotes emotional state, including affective and psychotic symptoms. Mood status was observed by the AER (Snyder et al., 1998).

METHODS

A longitudinal quasi-experimental design was conducted utilizing two equivalent groups (pre-test and post-test) and purposive sampling. The study instruments were administered via face-to-face interview.

Sample and setting

The sample comprised 48 institutionalized older adults aged 65 years or older, capable of verbal

communication, able to speak either Mandarin or Taiwanese, and demonstrating no obvious cognitive impairments. Subjects were recruited from five long-term care facilities in southern part of Taiwan that were free of administrating reminiscence and life review therapies. Sixty-one subjects that met the inclusion criteria were selected, but only 55 agreed to participate. The 55 willing participants then were randomly assigned to one of the two study groups. However, only 48 subjects completed the study due to two deaths, four frequent hospitalizations, and one relocation to other institution, yielding a final participation rate of 78.6%.

Instruments

Two instruments were used for data collection: (1) Geriatric Depression Scale short form Chinese version (GDS-SF) by Chan (1996). GDS-SF contains 15 items related to psychophysiological indicators of depression (Chan, 1996). Respondents answer each of the items with (1) yes or (2) no in relation to how they felt over the past few weeks. Scores can range from 0 to 15 with a cutoff point of equal to or greater than 7 suggesting a large number of depressive symptoms. Internal consistency reliability was 0.89, test–retest reliability was 0.85, criterion-related validity was 0.95, and concurrent validity was 0.96 (Chan, 1996). A Cronbach's alpha coefficient of 0.89 (pre-test) and 0.84 (post-test) were found in current study. (2) Apparent Emotion Rating Scale (AER) by Snyder et al. (1998). Although this scale is primarily used to assess affect in cognitively impaired elders, it can be used to measure observed emotions in intact elders as an additional indicator of depressed mood (Snyder et al., 1998). AER contains six affective states, including pleasure, interest, anger, anxiety, depression, and tranquility. The researchers reviews the indicators for each of the six emotions, circles any of the indicators that were observed, marks '1' for any emotion which has at least one indicator circled, and mark '0' for an emotion where no indicators are circled. Scoring of the AER is done by assigning 15 points for each of the positive emotions that is present and 15 points for each of the negative emotions that is absent. Total scores can range from 0 to 90. In this study, the AER was administered through direct observation while conducting face-to-face administrating of other instruments (approximately 30 minutes). An inter-rater reliability of anxiety had the lowest agreement (82%), while 100% agreement was found for interest. Cronbach's alphas of 0.55 to 0.86 were found (Snyder et al., 1998; Wang et al., 2001). Although the original report of the AER development showed somehow unsatisfied internal consistency, the validity of the AER is supported by the significant correlations with verbal measures of affect, the GDS and PGCMS ($p < 0.00$), and the Cronbach's alpha coefficient of 0.93 (pre-test) and 0.94 (post-test) were found in current study.

Procedure

Three researchers received a two-month reminiscence training course performed by the principle investigator prior to the onset of the study procedure. The training course including the theoretical and technical components of reminiscence followed by a situational demonstration. After institutional consent forms were obtained, each institution provided a list of residents who met the study criteria. The researcher then met with individual subjects, explained the purpose of the study, assured subjects of confidentiality and anonymity, and finally invited their participation. Written or oral consent was obtained from each subject before pre-test data collection. Data are kept confidential and use of code numbers was assured. Anonymity was maintained by separating the consent forms from the data sheets. Subjects in the experimental group met with the researcher individually and weekly for four months, after which a post-test measurement was conducted. Meanwhile, subjects in the control group met the researcher only for data collection purpose, with the meetings being spaced 4 months apart. To facilitate constancy, case management approach was utilized, i.e. each researcher managed an equal number of subjects from both control and experimental groups.

Intervention

The principle investigator, holds a PhD in the filed of gerontological care with experience in conducting reminiscence therapy, served to train the researchers. Then, the researcher met with each subject in the experimental group weekly for approximately 30 to 45 minutes over a period of four months. Unstructured individaul reminiscence was conducted (subject and researcher only, not to involve family members). One-to-one reminiscing provides Chinese elders a pleasurable interaction since they tend to be more reluctant to conduct social interaction. During each intervention, subjects were encouraged to recall past events. Important events such as childhood experiences, marriage, family life, war, and jobs were included as hints to subjects. Evocative materials,

such as old photos, recordings of old songs and radio programs, and other relics of the past were used to evoke memories and stimulate conversation between researchers and individual subjects.

RESULTS

Demographics

The demographic statistics for each group are listed in Table 1. The subject ages ranged from 65 to 93 years, with the mean age being 75.9. 60.4% of the subjects were male. This reflects the higher percentage of male elderly people residing in long-term care facilities due to World War II effect and cultural norm in Taiwan. 70.8% of the subjects were illiterate. The high illiteracy rate is understandable since the Taiwanese government only began to require six years of formal education for all children after World War II, meaning very few of the elderly generation received an education. However, no standardized cognitive test was performed for the illiterate subjects. Most of the subjects had lost their spouses, 47.9% had lived with their children prior to institutionalization and 20.8% had no children. None of the subjects were taking antidepressants but many of them were taking medication for controlling their chronic diseases, mostly on hypertension, diabetics, and Parkinson's disease. The average number of chronic diseases was 2.1 with the SD of 1.55 (range from 0 to 6). These subjects had weekly doctor's office visit. Chi-square analysis revealed no significant demographic differences between the experimental and control groups. Based on the results of Chi-square analysis, this study concludes that the randomization produced comparable groups of subjects.

Prevalence of depressive symptoms and mood status

The mean score for the overall score on the pre-test of the GDS-SF was 8.85 with a standard deviation of 4.38 (range = 0–15). The mean score for the overall score on the pre-test of the AER was 59.36 with a standard deviation of 31.67 (range = 0–90). In this sample, 66.7% ($n = 32$) of the participants demonstrated higher depressive symptoms (score ≥ 7) while 27.3% showed lower depressed mood, 25% showed medium mood status, and 47.7% showed good mood status.

Table 1. Demographic characteristics of the study subjects ($n = 48$)

Variables	Control	Experimental	Total		Chi-square
n	23	25	48	%	
Age					
65–75	12	11	23	47.9	0.37
76–85	8	11	19	39.6	
86 +	3	3	6	12.5	
Gender					
Male	12	17	29	60.4	0.26
Female	11	8	19	39.6	
Years of education					
Illiterate	15	19	34	70.8	0.48
1–5 years	7	6	13	27.1	
6–10 years	1	0	1	2.1	
Marital status					
Married	4	2	6	12.5	0.80
Widow	15	18	33	68.8	
Single	3	4	7	14.6	
Divorced/separated	1	1	2	4.1	
Living arrangement					
Live alone	5	5	10	20.8	0.54
Live with spouse	7	4	11	22.9	
Live with children/grandchildren	10	13	23	48.0	
Live with friends/relatives	1	3	4	8.3	
Income status					
Adequate	1	3	4	8.3	0.51
Fair	16	14	30	62.5	
Not adequate	6	8	14	29.2	
Number of children					
None	5	5	10	20.8	0.69
1–3 children	7	11	18	37.5	
4–6 children	7	7	14	29.2	
7 and more children	4	2	6	12.5	

Table 2. The effectiveness of reminiscence on the two variables within group ($n = 48$)

	Pre-test		Post-test		
	M	SD	M	SD	t
Control group ($n = 23$)					
Depressive symptoms	9.2	4.0	8.8	4.5	0.730
Mood status	59.3	30.5	62.5	25.8	0.381
Experimental group ($n = 25$)					
Depressive symptoms	8.3	4.8	6.2	4.1	2.832**
Mood status	57.9	33.8	74.3	21.5	−3.019**

**Significant at 0.01 level.

Effectiveness of reminiscence on depressive symptoms and mood status

The research question examined here was the effects of reminiscence therapy on depressive symptoms and mood status among elderly institutionalized adults. A *t*-test was used to test the homogeneity of the two groups based on their pre-test and post-test scores. Results revealed no statistically significant difference between the pre-test scores of the two groups relative to the dependent variables measured ($p > 0.05$). However, the post-test scores of the two groups differed significantly on both GDS-SF ($t = 2.027$, $p < 0.05$) and AER ($t = −1.987$, $p = 0.05$), indicating that the depressive symptoms of the experimental subjects decreased significantly and their mood status improved compared to that of the control subjects after reminiscing. Table 2 illustrates the effectiveness of reminiscence therapy within group, no significant difference was found in the two variables between the pre- and post-tests for the control group, but significant differences were noted in depressive symptoms and mood status between the pre- and post-tests for the experimental group ($p < 0.01$). In addition, 69.9% of the subjects from the control group and 64% from the experimental group on the pre-test demonstrated higher depressive symptoms (GDS-SF ≥ 7) respectively; however, after intervention on the post-test, the control group reminded the same percentage of subjects who scored as depressed on the GDS-SF but the percentage of subjects scored as depressed on the GDS-SF on the experimental group decreased to be 54.2%.

DISCUSSION

More than a half of the subjects demonstrated higher levels of depressive symptoms on the pre-test, yield-ing a desperate need for effective intervention to lease depression for this group of population. Regarding depressive symptoms and mood status, the experimental results implied that the response of subjects in the experimental group displayed significantly decreased depressive symptoms and higher reported mood status compared to the control group on the post-test measure. The findings showed significant improvement in depression, as measured by self-report and observer ratings. These findings are consistent with other findings supporting the use of reminiscence to reduce the self-reported depressive symptoms and boost mood status of subjects (Fry, 1983; Stevens-Ratchford, 1992; Arean *et al.*, 1993; Cully *et al.*, 2001). Fry (1983) firmed that reminiscence training reduces self-reporting of depression by subjects and boosts feelings of self-confidence and personal adequacy. Thus, the findings of other investigations support the present finding that reminiscence therapy has a general adaptive function for geriatric subjects. Reminiscence may be a therapeutic procedure allowing for self-expression and communication and providing the elderly with a formal outlet for expressing strong affects, unresolved feelings and fears which they had tried to repress (Cully *et al.*, 2001). During therapy, reminiscence therapy also provides a warm, listening and empathic environment to help subjects feel free to engage in overt reminiscence.

The advantage of individual reminiscence in this study may be that it provided subjects with an opportunity for self expression. Subjects controlled the recall process and therefore could downplay or emphasize certain aspects of their lives as desired. To summarize, the findings imply that participation in reminiscence activities is a positive and worthwhile experience for older persons. Evidence from this study as well as other empirical investigations suggests that reminiscence therapy effectively relieves depression. Therefore, the findings of this study can be applied in community health care planning. Long-term caregivers can learn reminiscence therapy in their daily care of the elderly. However, to ensure reminiscence therapy is effective in Chinese societies, nurses also must consider the specific cultural values and experiences of older Chinese people. Past life experiences such as memories on war, farming, family or children, were often primary concerns of elderly Taiwanese, which may evoke meaningful sense to them. For example, a subject became arrogant when reviewing his valiant achievement in war. Although lamenting reminiscences, defined by Kovach (1991), may focus on negative elements of

events or experiences and include difficulties on the person's past, the effects of it was not the primary purpose of this study, but it draws an interesting line for future analysis.

The National Institute of Nursing Research in the United States stated that cost-effective non-pharmacological methods of reducing depression in elderly people are required (NIH, 1997). Nurses are needed for evaluating and designing interventions targeting the mental health needs of older adults, especially those residing in long-term care facilities. Consequently, it seems plausible that strategies for enriching the lives of elderly people residing in long-term care are crucial, and that reminiscence offers a method of promoting healthy aging. This study has some limitations. First, the study sample was not large enough and was volunteer based. Second, although study sites were restricted to those that were free of planned intervention, other environmental and personal variations (such as frequency of visits from outsiders) and communications between subjects from two groups might still exist among subjects. Results maybe confounded by issues related to the researchers' personal characters. The low reliability coefficient for the AER can be another threat to the study.

Further research should examine the efficacy of reminiscence for treating and preventing other mental health indicators among elderly people and should use in-deep interviews to explore the common and/or most effective content of reminiscence and its quantity on topics that occur in various life transitions.

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