

Evaluation of the effect of a life review group program on self-esteem and life satisfaction in the elderly

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SUMMARY

Objective This study was aimed at evaluating whether a Life Review Group Program (LRGP) improved the self-esteem and life satisfaction in the elderly.

Methods This randomized, controlled trial consisted of 75 elderly males from a Veterans' Home in Northern Taiwan, 36 of whom were in the experimental group and 39 of whom were in the control group. The subjects in the experimental group participated in an 8-week LRGP. Data were collected before and after the LRGP and again 1 month after the end of the program.

Results The study subjects had a mean age of 78.13 years. The generalized estimating equation was used to compare alterations in the self-esteem and life satisfaction of the elderly before and after the intervention. The alterations in self-esteem and life satisfaction in the experimental group after the LRGP were significantly improved compared to the control group. One month after the LRGP was completed, the self-esteem and life satisfaction of the experimental group continued to improve when compared with pre-intervention levels.

Conclusions Based on these results, the LRGP can potentially improve the self-affirmation, confidence, and self-esteem of the elderly and promote short-term life satisfaction. The results of this study provide a model for clinical evidence-based therapy, serving as a reference for related studies and evaluation of health-promoting programs, as well as improving the health and quality of care of the elderly. Copyright © 2007 John Wiley & Sons, Ltd.

KEY WORDS—elderly; life review group program; self-esteem; life satisfaction

INTRODUCTION

Aging has become a worldwide issue. By 2020, the elderly population in the United States is projected to reach 68 million, representing approximately 23% of the US population (Fetter, 2003). Similarly, the aging population in Taiwan is growing rapidly, with 2.16 million people over 65 years of age, representing 9.54% of the population (Department of Statistics, 2005). Therefore, aging is an important issue to

address in an effort to help the elderly live as healthy individuals and to enhance their self-esteem and life satisfaction.

The Life Review Group Program (LRGP) is an important technique that is used to improve adaptation and self-integration of the elderly (Butler, 1963; McInnis-Dittrich, 1996; Chiu *et al.*, 2004; Ravid-Horesh, 2004). Studies have demonstrated that the self-esteem of elderly who participate in a LRGP is significantly improved; specifically, the self-esteem score increases, with a range of score changes from 0.9 to 3.0 (Lappe, 1987; Haight and Davis, 1992). Moreover, the LRGP significantly promotes life satisfaction of subjects as measured by the Life Satisfaction Index (LISA), with a range of scores

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increasing from 3.8 to 4.4 (Haight, 1988; Haight and Davis, 1992; Haight *et al.*, 2000; Davis, 2004;). Limited studies performed 1 and 2 years after completing the LRGP have shown the improved results are maintained, with the LISA scores ranging from 22.3 to 22.4 ($p < 0.03$; Haight and Davis, 1992; Chiu *et al.*, 2004). Our objective was to conduct a randomized, controlled trial to evaluate whether the LRGP can improve the self-esteem and life satisfaction of institutionalized elderly in an Eastern culture.

METHODS

This study randomized the elderly from a Veterans' Home in Northern Taiwan into experimental and waiting list control groups. An interview was scheduled to pre-screen potential subjects for their suitability prior to randomization, to gather contextual and baseline information, and to assure that they were eligible for entry into the study. The researcher also explained the purpose of the study prior to the subject's participation. Each potential subject was assigned a number. A table of random numbers was used to select 28 subjects from the first sub-group, 14 of whom were randomly assigned to a professionally lead LRGP or a waiting list comparison group. This same procedure was repeated with the second and third sub-groups of potential subjects. Study inclusion criteria included the following: (1) age 65 years or older; (2) a Mini-Mental Status Examination (MMSE) score of 20 or more; (3) no symptoms of brain injury; (4) no prior LRGP experience; and (5) voluntary participation. The researcher explained the study information to the enrolled subjects in detail and acquired informed, signed consent forms from each subject.

The experimental group subjects participated in an 8-week LRGP. The waiting list control groups participated in their usual activities. The subjects were examined before intervention, after intervention, and 1 month later to evaluate the effects of the LRGP on their self-esteem and satisfaction with life. A nurse with several years of experience in leading a LRGP led the experimental group, following the LRGP manual (LRGPM). The LRGPM is a modified form of a treatment approach developed by Butler (1963) and Haight (1988). The purpose of the LRGPM is to maintain consistency between experimental groups. The LRGPM consists of a series of group discussions on topics that pertain to life review. The content of the LRGP included: (1) childhood memories; (2) adolescence; (3) the subject's family; (4) the subject's job; (5) the subject's friends; (6) the greatest thing the

subject has accomplished in life; and (7) the summary of the life review and the integration of life events (I and II). To increase group discussion and interaction, a variety of techniques, such as rounds and dyads, and activities, such as role-playing a life experience, were incorporated. The LRGP was carried out once a week in the Veterans' Home, with each therapy lasting 1–1.5 h. The institutional review board at the Veterans' Home approved the study protocol.

Measures and data analysis

The primary outcome measures of this study were the Rosenberg Self-Esteem Scale (RSES) and the LISA. The RSES was selected to measure self-esteem and has internal consistency with a Cronbach's α value from 0.74–0.86 and appropriate test–retest reliability of 0.85–0.92 (Ward, 1977; George and Bearon, 1980). The LISA was selected to measure life satisfaction. The internal consistency coefficient of the LISA has been shown to be 0.84–0.97 (Haight, 1988; Haight *et al.*, 2000, McQuillen *et al.*, 2001; Pavot *et al.*, 1991). In this study, StaXact, a *t*-test, and the Mann–Whitney test were used to compare the pre-intervention differences between the two groups. The longitudinal effects of the LRGP were measured by the generalized estimating equation (GEE).

RESULTS

Demographic information of the enrolled subjects

One hundred and five participants were recruited for the study. Seventy-five participants completed the entire process, 36 in the experimental group and 39 in the control group. The demographic characteristics of the participants are shown in Table 1. All subjects were male, from 73 to 85 years in age, with a mean age of 78.13 ± 3.71 years. Eighty percent of the participants were older than 75 years of age. The mean MMSE score was 23.35 ± 2.06 . Forty subjects (53%) were illiterate and 42 were unmarried (56%).

Evaluation of the LRGP results

We compared self-esteem, satisfaction with life, level of education, and marital status during the pre-examination and found no statistical differences between the experimental and control groups with respect to self-esteem ($p = 0.50$) and life satisfaction ($p = 0.87$). Further, no differences were detected regarding potentially confounding variables (i.e. educational background: $p = 0.36$; marital status: $p = 0.62$).

Table 1. Demographic data of the study subjects ($n = 75$)

	Experimental group ($n = 36$)		Control group ($n = 39$)		p -value
	Sample size	Percentage	Sample size	Percentage	
Level of education					0.36
Illiterate	19	52.78	21	53.85	
Elementary school	10	27.78	10	25.64	
Middle school	6	16.67	3	7.69	
High school	1	2.78	2	5.13	
College or higher	0	0	3	7.69	
Marital status					0.62
Married	7	19.44	5	12.82	
Widower	4	11.11	8	20.51	
Divorced or separated	5	13.89	4	10.26	
Unmarried	20	55.56	22	56.41	
Age in years (Mean/SD)	78.28	3.53	78.00	3.91	0.50
MMSE score (Mean/SD)	23.25	2.30	23.44	1.83	0.49

Post-intervention, the LRGP significantly increased self-esteem from 22.14 to 26.28 ($p < 0.0001$). When analyzing the self-esteem mean score of both groups using the GEE method, with group and time as interaction variables, the self-esteem mean scores of the experimental group at the end of the LRGP and 1 month later were higher than the control group by 4.54 (SD = 0.52) and 4.27 (SD = 0.55), respectively, which were both statistically significant (both p -values < 0.0001 ; Table 2).

After the LRGP, the life satisfaction score of the experimental group increased from 19.06 during the pre-examination to 22.17 ($p < 0.0001$). When analyzing

the life satisfaction mean scores of both groups using the GEE method, with group and time as interaction variables, the life satisfaction mean scores of the experimental group at the end of the LRGP and one month later were higher than the control group by 3.70 (SD = 0.67) and 4.32 (SD = 0.85), respectively, which were both statistically significant (both p -values < 0.0001 ; Table 2).

DISCUSSION

The majority of study subjects were > 75 years of age, indicating that the elderly in the Veterans' Home are in a state of advanced age. Moreover, the elderly had similar backgrounds and life experiences. Indeed, it is difficult to find such a group of elderly living together. Most subjects were unmarried men and had no stable incomes or residence upon retirement from the military. The effects of the LRGP were assessed within two target areas, self-esteem and life satisfaction.

Effects on self-esteem

The findings of the current study were similar to the results of Lappe (1987) and Haight and Davis (1992) in showing significant effects of LRGP on promoting a subject's self-esteem. The self-esteem was statistically increased from the pre-test to the post-test and at the 1-month follow-up, indicating that the LRGP is effective in improving a subject's sense of meaning and purpose in life within the Chinese population. Possible reasons for the increase in self-esteem might be that completing the LRGP was helpful for subjects to collate all phases of their lives, review the past, offer new interpretations and significance, attain integration and thereby further promote self-affirmation, and

Table 2. Evaluation of the Life Review Group Program on the self-esteem and life satisfaction of elderly veterans based on GEE analysis ($n = 75$)

Variable	Estimate	SE	Z-value	p -value
Self-esteem				
Intercept	21.79	0.39	56.25	< 0.0001
Group(Exp.) ^a	0.35	0.38	0.93	0.3526
Time(2nd) ^b	-0.38	0.43	-0.88	0.3778
Time(3rd) ^b	-0.18	0.47	-0.38	0.7024
Group(Exp.) \times Time(2nd) ^c	4.54	0.52	8.74 ^d	< 0.0001
Group(Exp.) \times Time(3rd) ^c	4.27	0.55	7.76 ^d	< 0.0001
Life satisfaction				
Intercept	18.97	0.33	57.97	< 0.0001
Group(Exp.) ^a	0.08	0.50	0.16	0.8714
Time(2nd) ^b	-0.59	0.42	-1.41	0.1596
Time(3rd) ^b	-1.13	0.57	-1.99	0.0469
Group(Exp.) \times Time(2nd) ^c	3.70	0.67	5.40 ^d	< 0.0001
Group(Exp.) \times Time(3rd) ^c	4.32	0.85	5.10 ^d	< 0.0001

^aReference group: Comparison group.

^bReference group: time 1st.

^cReference group: Group ComparisonTime1st.

^d $p < 0.01$.

rediscover the significance of life. Moreover, when reviewing past experiences through sorting, analyzing, and evaluating the past, the elderly may alter their individual negative understanding, further affirming life values in order to attain life integration and improve self-confidence and self-esteem.

The LRGP allowed the elderly to develop new definitions of 'success', and discover self-affirmation through their own unique characteristics, endeavors in life, and sincerity toward other people. The LRGP also provided motivation to live on through reviewing prior so-called 'regrets', analyzing and evaluating the past from different perspectives, reconstructing and combining past events, and finally integrating them until they could be self-accepted. Through these activities, the value of past experience was emphasized while maintaining self-esteem and self-affirmation. Not only did the LRGP provide techniques of human communication, the elderly were also able to reconstruct new and positive life experiences, as well as building self-confidence and self-esteem.

Effects of LRGP on satisfaction with life

The results showed that the LRGP helped the elderly to improve their life satisfaction by creating a positive outlook toward their lives and enhancing their awareness of their overall living conditions. The results of our study were similar to results reported by Davis (2004), Haight (1988), and Haight and Davis (1992). The life satisfaction was statistically increased from the pre-test to the post-test and at the 1-month follow-up, indicating that the LRGP preserved and maintained the internal and external structures of the elderly by reviewing past experiences in order to counter present difficulties. This positive attitude towards the past and future could subsequently improve the satisfaction with life of the elderly.

The contents of the LRGP helped the elderly to seek new resources, cultivate new personal interests and hobbies, and discover their own strengths and weaknesses that could lead to their examination of present conditions so as to clarify their doubts and improve their future quality of life. The LRGP also provided opportunities for the elderly to interact with each other, providing them a greater opportunity to explore the value of their lives and activities. Once possessing direction and purpose, their life satisfaction may improve.

CONCLUSION

Our study applied the LRGP intervention to the elderly in a Veterans' Home. Life review therapy

improved the self-esteem and life satisfaction of the elderly after 8 weeks of intervention. Based on these results, LRGP can potentially improve the self-affirmation, confidence, and self-esteem of the elderly, and promote short-term life satisfaction in an Eastern culture. The LRGP helped the elderly find positive life values and affirmed their own endeavors, which further improved their self-esteem. These results may provide a reference for geriatric care in an Eastern culture. The main limitation of our study was that it was restricted to elderly males. There exist threats to validity by generalizing the results to a broad population of the elderly. Another limitation involved the time constraints, in that this study was only extended 1-month beyond completion of the LRGP. We therefore suggest performing a long-term follow-up study in the future that can examine the longitudinal effects of the LRGP.

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