

# Effects of a Bereavement Intervention Program on Depression and Life Satisfaction in Middle Aged Widows in Korea

Yang-Sook Yoo, PhD, RN<sup>1</sup>, Hee-Young Kang, PhD, RN<sup>2</sup>

**Purpose.** This study was designed to examine the effects of a bereavement intervention program on levels of depression and life satisfaction in middle aged widows in Korea.

**Methods.** A quasi-experimental design with non-equivalent control-group pretest-posttest was used. The subjects (control group, n = 10; intervention group, n = 17) were bereaved less than 6 months in G City and J Province, Korea. The bereavement intervention program consisted of Dan-jeon breathing, self-help group activities and a health examination. The experimental group attended 10 sessions of a bereavement intervention program. The control group had a health examination without the intervention program. For both groups, the level of depression and life satisfaction levels were measured before and after the experiment.

**Results.** The decrement of depression level in the experimental group was significantly greater than in the control group ( $p < .001$ ). The increment in life satisfaction in the experimental group was significantly greater than in the control group ( $p < .001$ ).

**Conclusion.** The results suggested that the bereavement intervention program was effective in decreasing level of depression and in increasing the life satisfaction of widows. Accordingly, a bereavement intervention program can be applied as an intervention to help widows.

**Key Words :** bereavement, depression, life satisfaction

## INTRODUCTION

The death of a loved one is generally assumed to be one of the most stressful experiences that people encounter during the course of their lives (Matthews & Marwit, 2004). In Korea the death rate of middle aged men due to diseases, industrial accidents, car accidents and fatigue from overwork is 3 times higher than that of women (Korea National Statistical Office, 2005) leading to an annual increase in the number of bereaved women. The normal response to bereavement is grief, which is a total response influencing our thoughts, emo-

tions, and actions (Chon, 1997). Grief can serve as a stressor, causing serious effects on health (Parkes, 1998).

Suffering such a loss strongly affects the psychological and physical well-being of the bereaved. More recently, researchers have concluded that grief symptoms only partially overlap with symptoms of depression (Matthews & Marwit, 2004). And typical depression symptoms (such as sadness, low energy, and sleep and appetite disturbances) are common after the loss of a loved one (Turvey, Carney, Arndt, Wallace, & Herzog, 1999; Aneshensel, Botticello, & Yamamoto-Mitani, 2004; Glass, 2005). Depression increases the risk of death independent of age or bereavement, and can thus exacer-

1. Associate Professor, College of Nursing, The Catholic University of Korea

2. Associate Professor, Christian College of Nursing

Corresponding author: Hee-Young Kang, PhD, RN, Christian College of Nursing  
67 Yangnim-Dong, Nam-gu, Gwangju, 503-711, Korea.

Tel: 82-62-676-8158 Fax: 82-62-675-5806 E-mail: moohygang@naver.com

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bate the health effects of losing a spouse (Williams, 2004).

One who suffers bereavement commonly loses their life satisfaction (Kang, 1998; Bennett, 1997). Also this loss places the widows at increased risk for morbidity and mortality (Williams, 2004). The intensity of grief caused becomes strongest within a period of 6 months after bereavement, and then subsides as a gradual process (Victoria Hospice Society, 1993). Therefore, it is necessary to carry out an assessment on the risk factors of the bereaved families and implement intervention within the first 6 months. To reduce these effects and support the family while they adapt to the critical situation of bereavement, an integrated management program that takes into account the whole physical and psychosocial situations of a bereaved family is needed. Previous research conducted overseas identified self-help group activities as reducing the levels of grief and depression, and increasing the life satisfaction of widows (Caserta & Lund, 1993, 1996; Constantino, Sekula, & Rubinstein, 2001; Stewart, Craig, MacPherson, & Alexander, 2001). In addition, relaxation therapy was found to assist the bereaved in regaining some control over their psychological status (Houldin, McCorkle, & Lowery, 1993). In this study, Dan-jeon breathing was applied as a form of relaxation therapy.

In Korea, however, there is no systematized management for assisting a bereaved family. Research has been done including surveys on stress levels, social support networks and the psychological state of bereaved women (Choi, 1997; Kang, 1998). In addition, qualitative research on bereaved women and their family's experiences (Lee, 2001; Yang, 2002) has been done along with research on biblical approaches for bereaved fami-

lies. Nonetheless, there is still no research into practical intervention in South Korea.

The bereavement intervention program in the present study was developed by integrating three components. The first component was the Dan-jeon breathing technique, a Korean traditional regimen effective in reducing depression and anxiety levels, enhancing life satisfaction and health status of middle aged women (Hyun, 2001; Kim, 2005). Dan-jeon helped alleviate tension from the sympathetic nerve system, relaxing participants. In addition, Dan-jeon is noted for promoting emotional stability (Ahn, 1996). The second component was a self-help group activity. Caserta and Lund's study (1993, 1996) reported that the bereaved spouses were able to mutually share their grief from bereavement and learn about coping styles while receiving emotional and social support. Eventually levels of grief and depression were alleviated and coping facilitated. The third component was a health examination. It is necessary to carry out a health examination to assess the health status of the bereaved.

The aim of this program was to develop a practical system with positive effects, reducing depression and increasing life satisfaction for bereaved middle-aged women.

## METHODS

### Research design

A quasi-experimental design with non-equivalent control-group pretest-posttest design was used (Figure 1).

### Sample

The subjects of present study were between 35 and 64 years old, bereaved less than 6 months in G city and J

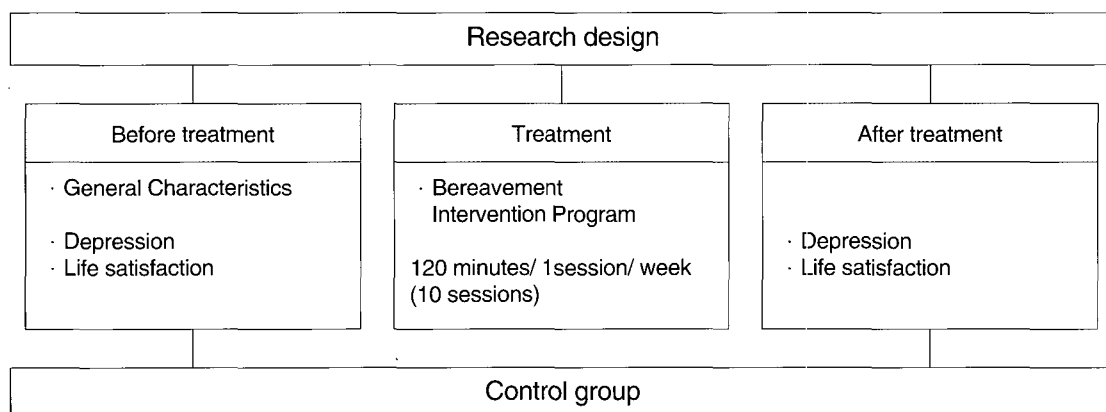


Figure 1. Research design

province, South Korea. The criteria for selecting the participant were as follows: (a) did not drink or smoke (b) did not exercise regularly and were not involved in social club (c) had no mental diseases (d) understood the information in the questionnaires and the objectives of the study. In the program's early stages there were 18 people in the experimental group and 13 in the control group. Individual circumstances led 1 subject from the experimental group and 3 from the control group to resign. The final number of participants was 17 for the experimental group and 10 for the control group.

### **Measurements**

#### **Depression**

Depression was measured using a self-reported questionnaire, Beck Depression Inventory-II (BDI-II), developed and revised by Beck *et al.* (1961); BDI-II was translated into Korean and used by Kim and Yang (2001). There were 20 items on a 4-point Likert-type scale. The instrument measured a client's level of depression using a depression of feelings which were occurred in the previous 7 days. Scoring is defined as follows: 0–13 = minimal; 14–19 = mild; 20–28 = moderate; 29–63 = severe depression. In Kim and Yang's study (2001), this instrument had Cronbach's alpha of 0.91; Cronbach's alpha in this study was 0.95.

#### **Life satisfaction**

Life satisfaction was one section of a quality of life (QOL) measurement using a self-reported questionnaire developed by Andrew (1976) and translated into Korean by Jeong (1995). The QOL measurement consists of five content areas: life satisfaction, feelings of happiness, level of worry, life state, and thoughts about the future. In this study only the life satisfaction part was used. This part consists of 13 items on a 5-point Likert-type scale. The face validity of the questionnaire was verified by two professors at a nursing college. Higher scores indicated higher levels of life satisfaction. In Jeong's study (1995), this instrument had Cronbach's alpha of 0.69; Cronbach's alpha in this study was 0.92.

### **Procedures**

The investigator first received approval for the study from a general hospital in G city and contacted 311 potential participants by mail and phone. The investigator also advertised the bereavement program in the weekly newspaper. Letters consoling widows and introducing

the program were sent based on a list of decedents from the medical center in G city. The purpose of the study was explained to potential participants, and the investigator received written consent from them. Lastly, participants were assigned at their preference to either an experimental or a control group. During the first meeting, the participants' levels of depression and life satisfaction were measured and a health examination was done (mammography, bone density, blood pressure, and complete blood count). The experimental group attended 10 sessions of a bereavement intervention program. Sessions were 120 minutes each, held once a week for 10 weeks. For both groups, the levels of depression and life satisfaction were measured again following the program's completion. When the data collection was finished, the investigator personally met with each participant in the control group to discuss the results of the health examination and difficulties of bereavement.

### **The bereavement intervention program**

The program consisted of the Dan-jeon breathing technique, a self-help group activity, and a health examination. The program was conducted at the health care room of C College in G City. The seventeen people in the experimental group were divided into 5 subgroups of 3 or 4 people. Each subgroup met 10 times from 10 am to 12 pm for 2 hours every Tuesday. Between September 2003 and September 2005, the 10-week program was run five times, once for each sub-group.

#### **Dan-jeon breathing**

The Dan-jeon breathing applied in this study is based on Pungryudo (Korean elegant arts) and is composed of both Dan-jeon breathing and stretching exercises. Dan-jeon means the 'place where energies gather together' Dan (丹) signifies life energy and Jeon (田) means to gather. These energies help to circulate blood through the entire body; this is the principle of regimen. The breathing technique is done by concentrating the mind and slowly taking deep breaths from 4-5cm below the belly button from the lower abdomen (Hyun, 2001).

The stretching exercise has 60 poses extending the muscles and joints at the main positions of standing, sitting or lying. This exercise can be easily done by middle-aged women. The breathing and stretching exercises were instructed by one Dan-jeon breathing master with 20 or more years of experience (Table 1).

### Self-help group activity

The self-help group activity was conducted by the investigator immediately after the Dan-jeon breathing program for the day finished. The self-help group met once a week for 10 weeks; each session ran for 60 minutes. The activity helped participants solve individual problems, share common experiences, and work towards the same goals (Cha, 2002). The self-help group was developed as a type of support group based on Worden's (1991) 4 tasks model (Table 2).

### Health examination

The experimental and control groups had a health examination (mammography, bone density, blood pressure, and complete blood count) to check their health status.

**Table 1.** Dan-jeon Breathing Program

Week	Contents	Time
1	<ul style="list-style-type: none"> <li>• Overview of Dan-jeon breathing</li> <li>- Definition of Dan-jeon breathing</li> <li>- Location of the lower abdomen for Dan-jeon</li> <li>- Method of Dan-jeon breathing</li> </ul>	60 minutes
2-10	<ul style="list-style-type: none"> <li>• Warming-up stretching exercise</li> <li>• Dan-jeon breathing</li> <li>• Cool-down stretching exercise</li> </ul>	20 minutes 30 minutes 10 minutes

**Table 2.** Self-help Group Activity

Week	Goals	Contents	Time
1	Understanding of grief	<ul style="list-style-type: none"> <li>• Program orientation</li> <li>• Introduce oneself</li> <li>- Sharing story of husband's death</li> <li>- Understanding of grief               <ul style="list-style-type: none"> <li>Grief process</li> <li>Grief response</li> </ul> </li> <li>• Goal setting (concrete and feasible goal)</li> </ul>	
2-3	• Facilitation of grief work	<ul style="list-style-type: none"> <li>• Storytelling 1</li> <li>Topic: Accepting the reality of the loss &amp; arranging for articles left by the departed</li> </ul>	60 minutes
4-5	• Provision of emotional support	<ul style="list-style-type: none"> <li>• Storytelling 2</li> <li>Topic: Working through the pain of grief (recording a tape or writing a letter)</li> </ul>	
6-7	• Enabling open discussion related concerns	<ul style="list-style-type: none"> <li>• Storytelling 3</li> <li>Topic: Adjusting to an environment in which the deceased is missing</li> </ul>	
8-9		<ul style="list-style-type: none"> <li>• Storytelling 4</li> <li>Topic: Emotionally relocating the deceased and moving on with life</li> <li>• Drawing a diagram of significant others</li> <li>• Visit graves together</li> </ul>	
10	Resolution of grief	<ul style="list-style-type: none"> <li>• Evaluate goal setting and changed life</li> </ul>	

### Data Analysis

Data analysis was done with the SAS program. The homogeneity of the two groups was tested by  $\chi^2$ -test and Fisher's exact test. Independent t-test was used to compare differences between the group's outcomes from pre-test and those from post-test.

## RESULTS

### General characteristics of the subjects

The characteristics of the experimental and the control group are shown in Table 1.

The mean age of the experimental group was 55.8 years and that of the control group was 54.4 years. In both groups, a majority of the participants were not employed (70.2% in the experimental group; 60.0% in the control group); a majority were religious believers (88.2% in the experimental group; 90.0% in the control group). In both groups, the majority of spousal deaths was cancer (64.7% in the experimental group; 80.0% in the control group). At pre-test, there were no significant differences in between two groups in general characteristics, depression levels, and life satisfaction levels (Table 3).

### Depression

In the experimental group, the level of depression after

**Table 3.** General Characteristics between the Experimental and Control Group

Groups Characteristics	Exp. (n = 17)	Cont. (n = 10)	$\chi^2/t$	p
	N (%) Mean $\pm$ SD	N (%) Mean $\pm$ SD		
Age (years) <sup>†</sup>				
35-49	2 (11.8)	2 (20.0)		1.000
50-59	9 (52.9)	5 (50.0)		
60-64	6 (35.3)	3 (30.0)		
Educational level <sup>†</sup>				
$\leq$ Elementary school	8 (47.1)	6 (60.0)		0.695
$\geq$ Middle school	9 (52.9)	4 (40.0)		
Religious believer <sup>†</sup>				
Yes	15 (88.2)	9 (90.0)		1.000
No	2 (11.8)	1 (10.0)		
Marriage length (years)			0.56	0.453
$\leq$ 30	6 (35.3)	5 (50.0)		
$>$ 30	11 (64.7)	5 (50.0)		
Bereavement period (months) <sup>†</sup>				
$\leq$ 2	7 (41.2)	6 (60.0)		0.209
3-4	5 (29.4)	4 (40.0)		
5-6	5 (29.4)	0		
Cause of husband's death <sup>†</sup>				
Cancer	11 (64.7)	8 (80.0)		0.666
Other	6 (35.3)	2 (20.0)		
Number of children <sup>†</sup>				
1	5 (29.4)	3 (30.0)		1.000
$\geq$ 2	12 (70.6)	7 (70.0)		
Job <sup>†</sup>				
Yes	5 (29.4)	4 (40.0)		0.683
No	12 (70.6)	6 (60.0)		
Income <sup>†</sup>				
$<$ 1000\$ U.S. dollars/ month	10 (58.8)	7 (70.0)		0.692
$\geq$ 1000\$ U. S. dollars/month	7 (41.2)	3 (30.0)		
Depression (score)	17.29 $\pm$ 10.65	14.20 $\pm$ 6.18	0.84	0.411
Life satisfaction (score)	35.29 $\pm$ 9.11	35.90 $\pm$ 4.36	-0.23	0.818

<sup>†</sup> : Fisher's exact test

**Table 4.** Changes of Depression between the Experimental and Control Group

	Pre-test	Post-test	Difference	t	p
	Mean $\pm$ SD	Mean $\pm$ SD	Mean $\pm$ SD		
Experimental (n = 17)	17.29 $\pm$ 10.65	5.12 $\pm$ 3.87	-12.18 $\pm$ 7.41	-4.87	.000
Control (n = 10)	14.20 $\pm$ 6.18	11.70 $\pm$ 4.99	-2.50 $\pm$ 2.68		

intervention decreased significantly compared to the pre-test score. The control group also showed a slight decrement of depression level after intervention, compared to that on the pre-test, and the difference was statistically significant. In addition, significant differences were observed between the two groups ( $p = .000$ ). The decrement of depression level in the experimental group was significantly greater than in the control group (Table 4).

### **Life Satisfaction**

After intervention, the level of life satisfaction increased significantly in the experimental group compared to the pre-test score. However, the control group showed a slight increment of life satisfaction after intervention, compared to that on the pre-test, but the difference was not statistically significant. In addition, significant differences were observed between the two groups ( $p = .000$ ). The increment in life satisfaction in the experimental group was significantly greater than in the con-

**Table 5.** Change of Life Satisfaction between the Experimental and Control Group

	Pre-test	Post-test	Difference	t	p
	Mean ± SD	Mean ± SD	Mean ± SD		
Experimental (n = 17)	35.29 ± 9.11	47.29 ± 6.37	12.00 ± 5.61	5.43	.000
Control (n = 10)	35.90 ± 4.36	37.10 ± 5.34	1.20 ± 3.65		

control group (Table 5).

### Health examination

Ten participants with suspicious finding from the mammography result were asked to take a follow-up check. From the bone density examination, those found with osteoporosis (1 person) and osteopenia (6 people) had osteoporosis prevention care explained to them.

## DISCUSSION

Even though bereavement causes critical stresses, so far no practical intervention research has ever been carried out on bereaved families in Korea. With the gradual extension of hospice nursing practice in recent years, pre-and-post deathbed- focused care has become widespread; however, the management of services related to bereaved families is still found to be insufficient.

The Dan-jeon breathing technique is a Korean traditional regimen noted for reducing depression and anxiety levels and enhancing health in middle aged women (Hyun, 2001; Kim, 2005). In this study Dan-jeon breathing was done for 30 minutes after life energy (氣) and blood (血) circulation enhancement had been adequately reached by a warm-up stretch exercise to relax the mind and body and reduce the joint rigidity. After the Dan-jeon breathing session, there was a cool-down stretch to re-distribute life energy “gathered together” during Dan-jeon breathing to the entire body. Thus, the effectiveness of Dan-jeon breathing and effects of physical stretch exercises were achieved at the same time.

The objectives of the self-help group activity in the present study were primarily drawn from Worden's (1991) tasks of grief. The weekly group meetings designed for this study aimed to strengthen the interrelationship and companionship of group members and also clear up negative emotions and alleviate stresses among participants. Participants developed mutual emotional support among themselves and received information services from the investigator.

In this study there was a significantly greater reduction in the level of depression in the experimental group as

opposed to the control group. The results are similar to those in Constantino's study (2001), in which level of depression was reported to be significantly decreased as a result of applying the Bereavement Group Intervention and the Social Group Intervention for widowed survivors of suicide.

Findings of this study indicated the increment in life satisfaction in the experimental group was significantly greater than the control group after treatment. This finding is similar to that of Sikkema, Hansen, Meade, Kochman, and Lee (2005) who suggested improved health-related quality of life following a group intervention for coping with AIDS-bereavement among HIV-infected men and women.

The significance of the present study's bereavement intervention program is found in the benefits to the participants. First, the program helped subjects attain physical health and peace of mind through Dan-jeon breathing as they learned to enhance their capacity to manage their own health. This was reinforced as participants learned to follow Dan-jeon breathing at home through distribution of self-instruction tapes. Secondly, subjects showed improved life-satisfaction and gains in recovering emotional stability through self-help group activities within a socialized support network. Moreover, they were helped in overcoming the isolation of being separated from their spouses by being able to make purposeful visits to others. The program as well helped participants establish mutual trust and a sense of intimacy by visiting their husband's graves together in order to pay homage to the deceased. Finally, subjects were provided with the opportunity to manage assessment of disease risks through the health examination.

This study shows the bereavement intervention program could be effective in decreasing levels of depression and in increasing life satisfaction in middle aged widows. Accordingly, this program using Dan-jeon breathing, self-help group activity and a health examination could be applied to help widows.

### Limitation of the study

The research sample was a non-random convenient

sample to which the researcher could have access for data collection. This limits generalization of the results. In addition, interpretation of the study results should be regarded with caution because of small sample size.

## CONCLUSIONS

In spite of the seriousness of the physical, psychological and social problems caused by bereavement, so far there have been no practical studies of intervention done for bereaved families in Korea. Consequently, it is hoped that this study will serve as a stimulus to initiate active studies of bereavement intervention from various disciplinary fields including nursing science

In order to confirm the validity of the effects of this program, a future study on long-term effects of bereavement intervention program is needed. Moreover, a study of the effectiveness of this program for men in bereavement is needed as well.

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