J Hosp Palliat Care 2023 September;26(3):126-139
https://doi.org/10.14475/jhpc.2023.26.3.126

Original Article

pISSN 2765-3072 • eISSN 2765-3080

Trends and Meta-Analysis of Research on the Operation of Programs for Bereaved Families in South Korea

Myung-Nam Lee, R.N., Ph.D., **Jung Won Suk**, R.N., Ph.D.* and **Hyunsook Zin Lee**, R.N, Ph.D, MBA†

Department of Nursing, College of Health Science, Kangwon National University, Samcheok,
*School of Nursing, Sahmyook Health University, Seoul,
†College of Nursing, Kyungdong University, Wonju, Korea

Purpose: This study aimed to analyze interventions for bereaved families and evaluate their effectiveness, with the ultimate goal of supporting evidence-based nursing for bereaved families. **Methods:** Research trends were identified based on a search of domestic databases from January 2000 to December 2022, and a meta-analysis was conducted on interventions for bereaved families. Forty-five papers were selected, and information was extracted on participants, research design, and interventions. A meta-analysis of seven papers was performed, and the effect size was calculated. **Results:** Fourteen papers dealt with interventions for middle-aged women who had lost their spouses, 20 used qualitative research methods, and 20 were on art therapy programs. Thirty studies had fewer than 10 participants, and most interventions had 60~120 minutes per session and 9~16 sessions in total. There were seven randomized controlled trials, and all studies included in the quality evaluation showed a low risk of bias. Four papers measured grief as an outcome, and the effect size was −1.9577 (95% CI: −2.9206 to −0.9947), indicating that the treatment significantly decreased grief (P<0.001). Six papers measured depression as an outcome, and the effect size was −1.6775 (95% CI: −2.1835 to −1.1716), showing that the treatment significantly decreased depression (P<0.001). **Conclusion:** Intervention programs for bereaved families were shown to be effective in relieving grief and depression. However, programs should be developed that target middle-aged men who have lost their spouses and children who have lost their parents. Randomized controlled trials should also be conducted on interventions to reduce grief and depression.

Key Words: Bereavement, Depression, Family, Grief, Meta-analysis

Received May 25, 2023
Revised July 19, 2023
Accepted July 27, 2023

Correspondence to
Jung Won Suk
ORCID:
https://orcid.org/0000-0003-0249-8757
E-mail: jwseok96@shu.ac.kr

Hyunsook Zin Lee
ORCID:
https://orcid.org/0000-0003-0578-9234
E-mail: zinhslee@kduniv.ac.kr

INTRODUCTION

Bereavement is a universal and inevitable event in human life that brings intense emotional suffering. A bereaved family is defined as "a family that has experienced the loss of a significant person through death" [1]. The death of a family member inflicts psychological, economic, social, and physical pain on the surviving members [2].

Since the launch of the Hospice and Palliative Care pilot project in 2002 and subsequent government intervention, interest in hospice and palliative care has grown. This interest has been strengthened by policy support, culminating in the implementation of the Act on Hospice and Palliative Care and Decisions on Life-Sustaining Treatment for Patients at the End

of Life in 2018 [3]. The World Health Organization guidelines for palliative care stipulate that services should not only cater to the needs and well-being of terminally ill patients and their families, but also offer support to bereaved families [4]. However, the provision of support for bereaved families within domestic hospice and palliative care services remains insufficient.

Challenges in bereavement care encompass a "lack of specialized knowledge," a "shortage of experts and workforce," "insufficient societal awareness of the bereaved," and a "lack of diversity in bereavement care programs" [5]. Moreover, there has been a call for more comprehensive studies on the adaptive experiences of grieving families [6]. In terms of care programs for bereaved families, there is a notable deficiency in detailed research on adaptive grief experiences, and the validation of the effectiveness of existing programs is inadequate [7]. It is essential to care for bereaved families, aiding them in navigating the profound shock and grief, and facilitating their swift transition from bereavement to a state of renewed well-being and transformed, mature lives [7].

When parents pass away, their children, who are in the midst of grieving, suffer not only from significant psychological harm such as major depression, anxiety disorders, post-traumatic stress, and guilt, but also from behavioral issues like antisocial behavior and academic difficulties [8]. As the grieving process deepens, the bereaved individuals experience a range of intense emotional states, and there is even a known risk of suicidal thoughts [9]. The unexpected death of a loved one can result in issues such as fear and paralysis [10]. Unresolved grief from the loss can serve as a stressor, leading to not only physical problems but also mental and social complications like depression and suicide [11,12].

The most widely accepted approach to bereavement support in many countries emphasizes palliative care services. These services focus on managing both the pre- and post-care of patients with terminal illnesses, as well as their families [13]. A survey conducted in Australia revealed that out of 236 institutions, 95% offered bereavement support. The most common types of support included phone calls (86%), memorial services (66%), letters (55%), commemorative cards (53%), group sessions (31%), informational packages (5%), and informal gatherings (5%). Similar services are also being implemented in other countries such as the United States, Canada, the United Kingdom, and Japan.

The global COVID-19 pandemic has caused many deaths, leading to an increased number of individuals grappling with bereavement [14]. The necessity of mask-wearing has complicated communication, and social distancing measures, including restrictions on family visits and enforced isolation, have made it difficult to honor patients' final moments [15]. The intense focus on treating COVID-19 has also resulted in a lack of societal attention toward family caregivers. Since the World Health Organization declared the end of the pandemic in May 2023, there has been a growing trend of reflecting on the societal grief experienced during this period. Additionally, the enactment of the Act on Hospice and Palliative Care and Decisions on Life-Sustaining Treatment for Patients at the End of Life in 2018, along with ongoing debates on euthanasia, have heightened societal interest in death and bereavement within the domestic context.

In light of this, the authors believe that it is of vital importance to enhance our understanding of bereaved families who have endured loss, and to identify the specific effects of interventions for evidence-based practice and nursing care for these families. Consequently, the aim of this study was to analyze intervention studies carried out in Korea, targeting bereaved families grappling with diverse challenges. Through the examination of research trends, a quality assessment, and a meta-analysis of studies that quantitatively measured program effects, we hope to offer valuable data for crisis mitigation and adaptation among bereaved families.

METHODS

1. Study design

This study conducted a systematic literature review and meta-analysis to understand trends in intervention studies targeting bereaved families conducted in Korea and to determine the effects of several interventions.

2. Literature review

Data collection took place from December 2022 to February 2023. Three researchers, each with experience in conducting meta-analysis literature searches, independently performed the

literature search. The databases utilized for this search included the National Assembly Library (NANET), Research Information Sharing Service (RISS), and DBpia. The scope of the data was restricted to publications from January 2000 to December 2022, in either Korean or English, to ensure the most recent trends were represented. If a thesis had been published in a journal, the journal article was chosen. The search keywords included "bereaved family," "death," "loss," "bereaved family member," "program," and "nursing." The search formula incorporated terms that represented "bereaved family" (P), "program," and "intervention" (I).

3. Criteria for study selection

The selection of studies was conducted in two main steps:

1) Selection of domestic research trends papers

Papers that described interventions specifically for bereaved families after the year 2000 were selected. The methods used to measure the effects of the interventions were categorized as quantitative, qualitative, or mixed. Studies that did not focus on bereaved families, duplicate papers, and papers without full texts or abstracts from academic conferences were excluded.

2) Selection of papers for meta-analysis

The Preferred Reporting for Systematic Reviews and Meta-Analysis (PRISMA) guidelines were followed. The literature was reviewed after searching databases according to the PICO-SD (participants, intervention, comparison, outcomes, study design) key strategy. The research participants (P) were families who experienced bereavement due to death, in line with the research objective. Cases where families were separated due to reasons such as divorce, separation, and adoption were excluded. The interventions (I) included art therapy, drama therapy, counseling, support, and other interventions, and for the meta-analysis, group interventions were considered rather than individual interventions. The comparison group (C) comprised individuals who did not receive bereavement interventions. The outcomes (O) were the results values measured after interventions targeting bereaved families. In addition to research articles published in academic journals, gray literature such as dissertations was also included. The study design (SD) for the meta-analysis included intervention studies with control groups, including randomized controlled trials (RCTs), non-randomized controlled trials (NRCTs), and time-series designs. Additionally, the study focused on papers that presented test statistics or confidence intervals along with mean or standard deviation values to calculate the effect size of the experimental and control groups. Studies for which effect sizes could not be determined were excluded.

4. Literature review and meta-analysis

1) Literature selection and data extraction

Initially, 1,059 papers were extracted. However, 951 of these were excluded due to their irrelevance to interventions for bereaved families and because they were duplicates. Of the remaining 108 papers, 63 were further excluded due to the lack of participation from bereaved family members or the inclusion of participants from categories identified through the titles and abstracts. The reasons for each paper's exclusion were recorded, and 45 papers were left for analysis (Figure 1).

In order to evaluate the impact of bereavement family intervention programs, we excluded 35 studies that utilized non-experimental designs. For our meta-analysis, we selected 10 papers that focused on group interventions for grieving families. We extracted general characteristics, interventions, and study outcomes from these papers and conducted a quality assessment of their methodologies. Out of the 10 papers, we examined the outcome variables, identifying the most frequently measured ones. Specifically, grief assessment tools were used in 4 papers, while depression assessment tools were employed in 6 papers. We analyzed a total of 7 papers, which included those that used both grief and depression assessment tools in duplicate measurements. Three independent researchers carried out the entire process of data selection and extraction. For the three studies that were excluded from the meta-analysis, we confirmed inter-rater reliability among the researchers. We excluded two studies [A13,A19] that lacked precise values for the experimental and control groups, as well as one study [A18] that solely measured effects from a physical perspective, rather than using a Likert scale as the measurement tool.

2) Methodological quality assessment

For non-randomized controlled trials (NRCTs), we utilized the Risk of Bias Assessment tool for Non-randomized Stud-

https://doi.org/10.14475/jhpc.2023.26.3.126

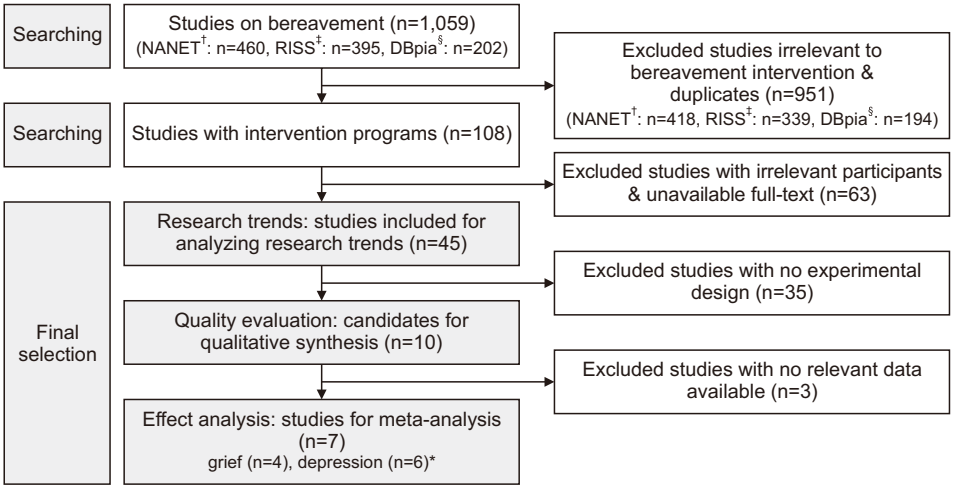

Figure 1. Study flow.
†NANET: National Assembly Electronic Library, ‡RISS: Research Information Sharing Service, §DBpia: Nurimedia.

ies (RoBANS), which consists of 8 items [16]. For randomized controlled trials (RCTs), we used the Cochrane's Risk of Bias (RoB) tool, which has 7 items. To ensure inter-rater agreement among researchers during the item-by-item evaluation of the quality assessment tool, a pilot test was conducted on the quality assessment items in two preliminary studies. These were categorized as either "low risk," "high risk," or "uncertain risk of bias." Quality assessment was carried out in accordance with the evaluation criteria of the RevMan program's assessment framework, and we provided explanations for our judgments. In cases where there were differing assessments among researchers, the items were re-evaluated by referring back to the original text and following the evaluation guidelines. A consensus was then reached through discussions among the researchers.

3) Data analysis

First, an analysis of domestic research trends from the 2000s through December 2022 was conducted, categorizing bereaved family participants into middle-aged women, middle-aged men, elderly individuals, parents, children, and families, with a 5-year interval for each category. Studies that measured the effects of interventions were classified according to the research methods used, the characteristics of the interventions (type, frequency, and duration), and the number of participants.

Second, we analyzed the intervention programs and assessed the methodological quality of 10 selected papers. The program type, participant characteristics, number of participants, bereaved subjects, intervention providers, program structure (sessions, time), and measured variables were analyzed. For RCTs, issues such as allocation concealment, blinding of participants and researchers, outcome assessment, blinding of outcome assessment, attrition bias, and other biases were assessed. For NRCTs, the methodological quality assessment included evaluating selection bias, comparability of study groups, participant selection, incomplete outcome data of dropout bias, assessment of confounding variables and outcome assessment bias, and selective outcome reporting.

Third, for the seven papers eligible for meta-analysis, the effect sizes and homogeneity of interventions were assessed using the R studio program (version 2023.03.0). For outcome variables with different measurement tools or units in effect sizes, the standardized mean difference (SMD) was utilized, whereas the mean difference (MD) was used for those with the same measurement tools and units. Assuming that the results of each study were similar, the pooled effect was calculated using a fixed-effects model in cases of homogeneity, while a random-effects model was employed if heterogeneity was present. Homogeneity was assessed using the Cochrane chi-square test (I^2 test), with an I^2 value of 0~25% signifying low heterogeneity, 25~75% indicating moderate heterogeneity, and 75~100% implying substantial heterogeneity [17]. If the outcome variable was measured more than once post-intervention, we selected the value immediately after the intervention to minimize potential time differences. The statistical significance of the effect size (d) was assessed through overall effect testing and a 95%

confidence interval (CI), setting the significance level at 5%. Effect sizes were interpreted according to Cohen's criteria [18] for the SMD: a "small effect" is indicated by d=0.20 to 0.50, a "medium effect" by d=0.50 to 0.80, and a "large effect" by d>0.80. Funnel plots were used to evaluate publication bias. Although methods such as Egger's linear regression or Begg and Mazumdar's rank correlation test (Begg's test) can be used for verification, the Cochrane recommendation advises against these methods when the number of studies is small due to accuracy limitations [19].

RESULTS

1. Trends in domestic research on programs for bereaved families

An analysis was conducted on 45 papers published between 2000 and 2022 to identify trends in domestic research concerning programs for bereaved families. The majority of these studies (14 papers; 31.1%), focused on middle-aged women who had lost their spouses. Interestingly, no studies were found that analyzed programs for middle-aged men. Research on elderly individuals who had lost their spouses accounted for eight papers (17.8%). There was a noticeable increase in these studies over time, with one paper each published in the periods 2005~2009 and 2010~2014, two papers in 2015~2019, and four papers in 2020~2022. Studies on programs for children and adolescents who had lost parents or other family members, primarily those under 18 years of age, made up 10 papers (22.2%). These were all published after the period 2010~2014. Research focusing on parents who had lost children was less common, with only three papers (6.7%) found. One of these papers was published in 2015~2019, with the remaining two published later. Other family members, such as siblings, have been a consistent focus of research since 2000 (Table 1).

Qualitative assessments of intervention effects, including case studies, content analysis, and phenomenological studies, predominated, with a total of 24 papers (53.3%). Conversely, quantitative measurement methods were utilized in 20 papers (44.4%). Of these quantitative studies, 12 papers (26.7%) incorporated both experimental and control groups. Only one paper (2.1%) employed a mixed-methods approach, utilizing both quantitative and qualitative measurement methods (Table 2).

Table 1. Types of Bereaved Family by Time Period (N=45).

Year	Spouse			Children		Parents	Other family members	Total
	Middle aged-women (35~64 years)	Middle aged-men (35~64 years)	Old age (≥65 years)	Under 18 years	Over 18 years			
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
2000~2004	-	-	-	-	-	-	1 (2.2)	1 (2.2)
2005~2009	2 (4.4)	-	1 (2.2)	-	-	-	1 (2.2)	4 (8.9)
2010~2014	6 (13.3)	-	1 (2.2)	2 (4.4)	-	-	3 (6.7)	12 (26.7)
2015~2019	6 (13.3)	-	2 (4.4)	3 (6.7)	1 (2.2)	1 (2.2)	3 (6.7)	16 (35.6)
2020~2022	-	-	4 (8.9)	3 (6.7)	1 (2.2)	2 (4.4)	2 (4.4)	12 (26.7)
Sub-Total	14 (31.1)	-	8 (17.8)	8 (17.8)	2 (4.4)	-	-	-
Total	22 (48.9)			10 (22.2)		3 (6.7)	10 (22.2)	45 (100)

Table 2. Research Methods for Measuring the Effects of Bereaved Family Programs (N=45).

	Quantitative research-experimental		Qualitative research		Mixed methods	Total
	Single group	Experimental-control group	Case study/content analysis	Phenomenological study	Quantitative & qualitative research	
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Articles & dissertations	8 (17.8)	12 (26.7)	16 (53.3)	8 (17.8)	1 (2.2)	-
Sub-total	20 (44.4)		24 (53.3)		1 (2.1)	45 (100)

https://doi.org/10.14475/jhpc.2023.26.3.126

Upon reviewing the programs implemented for bereaved families, it was found that art therapy was the most prevalent, represented in 20 papers (44.4%), with 17 of these being individual applications. This was followed by counseling programs, which were discussed in a total of 8 papers (17.8%), with group counseling being more common than individual counseling. The next most frequently implemented program was a hybrid approach, incorporating elements of art therapy, counseling, and other artistic activities. A variety of programs, including art activities, theater, scenario work, cognitive-behavioral therapy, psychological therapy, and reading, were implemented for families dealing with bereavement (Table 3-1).

The majority of programs (30 papers, 66.7%) involved fewer than 10 participants in the intervention group. The program sessions were held between 9 to 16 times, as reported in 20 papers (44.4%). The length of each program session predominantly ranged from 60 to 120 minutes, as indicated in 31 papers (68.9%) (Table 3-2).

2. Meta-analysis of bereaved family intervention programs

1) Characteristics of bereaved family group intervention programs

The methodological quality assessment was conducted on 10 studies (Table 4) that focused on group interventions for bereaved families. Two studies were excluded from the original 12 quantitative studies: one due to a lack of tool descriptions, and another that focused on individual interventions. The studies included a range of 5 to 30 participants, with a total of 128 participants in the experimental groups (mean, 12.8 individuals) and 121 in the control groups (mean, 12.1 individuals). Six of the studies [A9,A13,A14,A25,A43,A44] focused on middle-aged women, while three [A18,A20,A39] included individuals aged 65 and above. Five studies [A9,A18,A20,A25,A39] specifically targeted individuals grieving the loss of a spouse. The group intervention programs encompassed a variety of approaches, including loss-oriented counseling, grief art therapy, group grief support, spirituality-based grief healing, grief-focused cognitive-behavioral therapy, and group activities. The providers of these interventions

Table 3-1. Intervention Programs for Bereaved Families (N=45).

	Painting			Counseling		Others							
	Individual	Family	Group	Individual	Group	Group complex program	Group mutual support	Art activities, play, scenario	Cognitive behavioral therapy, psychotherapy	Reading	Self-support	Multi-program (painting, individual counselling, art activities)	Total
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Articles & dissertations	17 (37.8)	1 (2.2)	2 (4.4)	1 (2.2)	7 (15.6)	-	-	-	-	-	-	-	-
Total		20 (44.4)			8 (17.8)	4 (8.9)	2 (4.4)	3 (6.7)	2 (4.4)	2 (4.4)	1 (2.2)	3 (6.7)	45 (100)

Table 3-2. Content Analysis of the Intervention Programs for Bereaved Families (N=45).

	Number of people per group (person)			Sessions (times)				Time per session (minutes)			
	<10	10~20	>21	1~8	9~16	>17	no-presentation	<60	60~120	>120	no-presentation
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Articles & dissertations	30 (66.7)	12 (26.7)	3 (6.7)	13 (28.9)	20 (44.4)	11 (24.4)	1 (2.2)	5 (11.1)	31 (68.9)	4 (8.9)	5 (11.1)

Table 4. Descriptive Summary of Qualitative Synthesis for the Meta Analysis (N=10).

Reference no.	First author (publication year)	Program	Participants	n	Bereaved family members	Program providers	Sessions & duration/ session	Outcomes
A20	Lee JW (2021)	Healing of loss	Old women (≥65 years) who experienced family death during last 35 years	E:16 C:16	Spouse	Counselor	8 sessions 120 minutes	Distress on bereavement, depression, resilience, quality of life
A39	Park SW (2019)	Painting (group)	Old women (≥65 years) who experienced family death during last 5 years	E:13 C:13	Spouse	Counselor	8 sessions 180 minutes	Grief, depression, self-integration
A44	Yang JS et al. (2018)	Group counseling	Middle-aged women aged 40~59 years	E:11 C:11	Various (parents, siblings, children, spouse)	Counselor	8 sessions 120 minutes	Distress on bereavement, depression, growth after adversity
A14	Kim JS (2018)	Group healing of loss	Middle-aged women aged 40~59 years	E:8 C:8	Various (parents, children, spouse, others)	Counselor	9 sessions 90 minutes	Grief, depression, growth after adversity, spirituality
A43	Seol JH et al. (2016)	Multiple art therapy	Middle-aged women aged 40~59 years	E:8 C:8	Various (parents, siblings, children, spouse)	A master's student (education)	10 sessions 120 minutes	Grief, self-esteem
A19	Lee JS (2016)	Scenario	Parents, University students who experienced parents' death	E:5 C:5	Father, mother, parents	A master's student (education)	8 sessions 120 minutes	Grief, resilience
A18	Kim YK (2016)	MBCT	Old women aged 65~75 years	E:30 C:30	Spouse	Therapist	16 sessions 60 minutes	2 channel brain EEG, the score of anti-stress
A25	Lim SH et al. (2013)	Grief Cognitive behavioral therapy	Middle-aged women	E:10 C:10	Spouse	Cognitive behavior therapist	12 sessions 120 minutes	Automatic negative thinking, negative grief cognition, grief, depression, State anxiety, coping with stress, ability of problem solving, physical symptom
A13	Kim JS (2013)	Psychotherapy	Women aged 35~65 years	E:10 C:10	Various (parents, siblings, children, spouse, friends)	Counselor	9 sessions 90 minutes	Grief, self-worth, mental well-being.
A9	Kang HY (2006)	Complex programs (group)	Middle-aged women	E:17 C:10	Spouse	Nurse	10 sessions 120 minutes	Sorrow, depression, stress, immune response, satisfaction with life

E: experimental group, C: control group, MBCT: Mindfulness Based Cognitive Therapy.

varied, with counselors in five studies [A13,A14,A20,A39,A44], a cognitive-behavioral therapy specialist in one [A25], and a nurse in another [A9]. The programs typically consisted of 8 to 12 sessions, with 8 sessions being the most common format, in four studies [A19,A20,A39,A44]. Each session lasted 120 minutes in six studies [A9,A19,A20,A25,A43,A44], with a range of 90 to 180 minutes. To assess outcomes, a variety of psychosocial measurement tools were used. Negative psychosocial measures included grief [A14,A19,A25,A39,A43], depression [A9,A14,A20,A25,A39,A44], grief-related distress [A20,A44], sadness [A9], and stress [A9]. Positive psychosocial measures, such as resilience after loss [A19, A20], quality of life [A20],

https://doi.org/10.14475/jhpc.2023.26.3.126

post-adversity growth [A14,A44], self-esteem [A43], and self-integration [A39], were also used to evaluate the effects. One study [A18] also measured physiological variables, including brain activation and stress indices.

2) Methodological quality assessment of bereaved family group intervention programs

Several factors are relevant for evaluating the quality of assessment methods, such as randomization, allocation concealment, the blinding of participants and researchers, outcome assessor blinding, incomplete outcome data, selective outcome reporting, and other potential biases.

Among the six RCT studies [A9,A13,A14,A25,A39,A44], five studies [A9,A14,A25,A39,A44] provided relatively detailed descriptions. However, none of the six studies detailed the concealment of allocation, the blinding of participants and researchers, or the blinding of outcome assessors. Dropout bias was reported in two of the studies [A9,A44], accounting for 33.3%, while bias related to tool usage and selective outcome reporting was generally minimal across all six studies. Other potential sources of bias were evaluated based on intervention manuals and the expertise and monitoring of those providing the interventions. Four of these studies [A9,A14,A25,A44] (66.7%) were found to have low bias.

In evaluating the methodological quality of the four NRCT studies [A18,A19,A20,A43], only one study (14.3%) was found to be free of bias in the areas of subject comparability, subject selection, and incomplete data in relation to dropout bias. The elements of confounding variables, outcome assessment, and selective outcome in the context of outcome confirmation bias were all found to exhibit low bias across all four studies.

The results of bias risk assessment for the six RCTs indicated that the tool usage and selective outcome reporting items were fully described. Other biases were high in two studies [A39,A43] and low in the remaining four studies. The subject dropout item was described only in two studies [A9,A44]. For the four NRCT studies, confounding variables and outcome confirmation bias were found to have low bias, indicating that these studies were suitable for summarizing research outcomes.

3) Analysis of effects on grief and depression

After excluding two studies due to unclear measurement values, four studies remained that focused on grief [A14,A25,A39,A43] (Figure 2A). All four studies observed the effects of interventions on grief, and a significant decrease in grief scores was noted in the experimental groups. This led to a combined effect size of −1.96 (95% CI, −2.92 to −0.99),

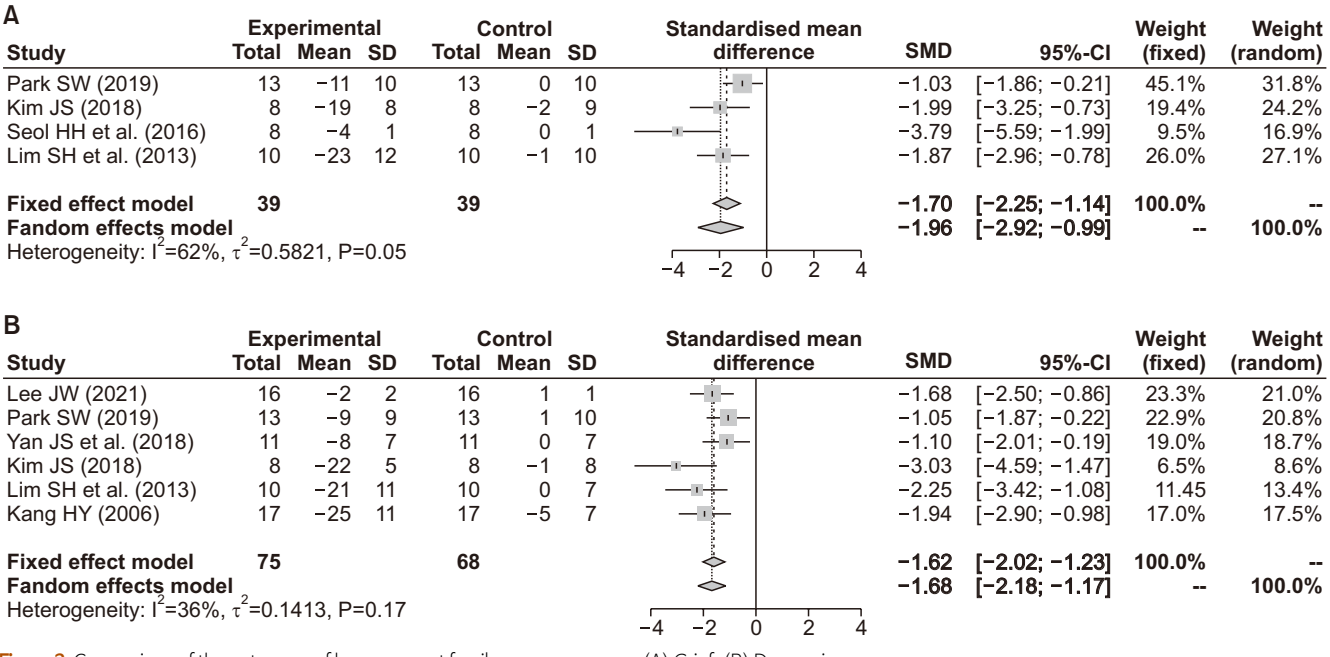

Figure 2. Comparison of the outcomes of bereavement family group programs. (A) Grief, (B) Depression.

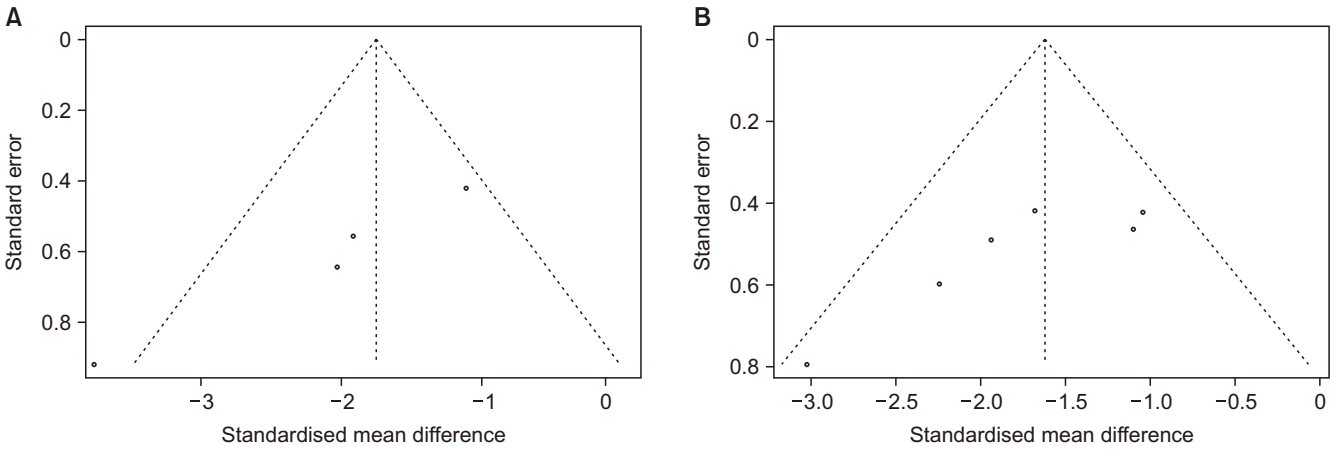

Figure 3. Adjusted funnel plot of selected studies for effect size. (A) Publication bias of the effects on group intervention programs for bereaved families on grief, (B) Publication bias of the effects on group intervention programs for bereaved families on depression.

suggesting a statistically significant improvement due to the interventions (P<0.001). However, Higgins' I^2 was 62.2% (P=0.0471), indicating a significant level of heterogeneity. An analysis of publication bias revealed an uneven distribution: one study fell outside the left of the funnel plot, two studies were located on the inside left, and one study was on the inside right. This pattern suggests the existence of publication bias (Figure 3A).

Six studies on depression [A9,A14,A20,A25,A39,A44] were identified (Figure 2B). Among these, four studies [A9,A14,A20,A39] demonstrated a significant decrease in depression scores within the experimental groups, indicating positive outcomes. Conversely, two studies [A25,A44] showed no discernible difference between the intervention and control groups, although variations were noted between pre- and post-intervention periods or over time. The combined effect size was calculated at −1.68 (95% CI, −2.18 to −1.17), signifying a statistically significant improvement as a result of the intervention (P<0.001). Higgins' I^2 was determined to be 36.0% (P=0.1671), suggesting low heterogeneity. An analysis of publication bias revealed that all six studies fell within the funnel plot, with four studies positioned on the left and two on the right, indicating the existence of publication bias (Figure 3B). However, upon further investigation of publication bias within the studies, no evidence of a small study effect was found for either grief (four studies) or depression (six studies) measurement tools.

DISCUSSION

This study aimed to investigate the impact of interventions aimed at bereaved families by analyzing trends in domestic research and conducting a meta-analysis on intervention studies that used quantitative methods. To accomplish this, we selected a total of 45 papers from academic journals and master's or doctoral theses published domestically between 2000 and 2022, in line with the study's objective. We performed a quality assessment on 10 papers that employed a control group and a pre-post experimental design. Of these, we calculated the effect sizes for four papers that primarily measured grief and six papers that measured depression.

Upon analyzing the distribution of papers over 5-year intervals for each subject group, it was observed that the number of papers pertaining to bereaved family intervention programs has been on the rise. When compared to the periods of 2000~2004 and 2005~2009, there was a noticeable increase in the number of papers during 2010~2014(12 papers) and 2015~2019(16 papers). Even though the period of 2020~2022 only spans three years, it already has 12 papers, suggesting a growing interest in bereaved family intervention programs. This trend could be seen as a reflection of society's increasing concern for end-of-life care [20]. Unforeseen events such as the Sewol ferry disaster, the Daegu subway fire, and the ongoing effects of COVID-19 have sparked a societal need to alleviate the suffering caused by the death of family members or acquaintances, and to expedite the return to normal life.

https://doi.org/10.14475/jhpc.2023.26.3.126

When examining trends within specific groups, studies that target middle-aged women who have become widows represent the largest proportion (31.1%). In contrast, there are no studies that specifically focus on middle-aged men. This gender imbalance may be due to traditional Confucian influences and societal norms, which often discourage middle-aged and elderly men from expressing grief beyond parental loss. These norms also tend to result in men displaying more restrained emotional responses than women. Given that the death of a spouse significantly impacts middle-aged Korean men, who often heavily depend on their wives and are prone to severe depression [21], it is crucial for researchers to devote more attention to this group and strive to develop programs tailored to their specific needs.

Ten studies focused on children and adolescents (22.2%), with a marked increase in studies targeting those under 18 years of age since 2010. This surge in interest can be attributed to the escalating concern for child welfare, which has brought more attention to children and adolescents. Since bereavement is a significant event that affects all developmental stages due to its impact on family stress, it is crucial to offer support that is tailored to the developmental characteristics of individuals at all life stages, from childhood to old age [22]. Additionally, research focusing on parents who have lost children began to emerge after 2015, accounting for 3 papers (6.7%). These parents may experience intense psychological distress and a heightened susceptibility to feelings of helplessness, underscoring the need for proactive and ongoing care after loss [23].

In terms of the methodology used in intervention studies, qualitative research (case studies, content analysis, and phenomenological research) constituted 24 papers (53.3%), while quantitative studies utilizing control and experimental groups accounted for 12 papers (26.7%). This distribution may be due to the inherent challenges of recruiting suitable participants and the difficulty of conducting ongoing evaluations of effects, even in quantitative studies. In this research field, a more effective approach would be to apply mixed-methods research. This approach was demonstrated in one paper (2.1%) [A42], which evaluated program effects using both quantitative and qualitative assessments. This method not only confirms the effectiveness of intervention programs for bereaved families, but also allows for a thorough exploration of the bereaved individuals' experiences, theoretical foundations, therapeutic factors, and the significance of their experiences.

Among the programs applied to bereaved families, individual art programs were the most common, followed by group counseling programs. In addition to these, a variety of programs were implemented within group activities, including artistic activities, theater, cognitive-behavioral therapy, scenario-based activities, bibliotherapy, and psychological therapy. Aside from art therapy, many of these programs were conducted in a group setting. However, given that participants in Park's study [24] reported discomfort with self-disclosure, and participants in Kim's study [25] found it challenging to share personal experiences within the group, it seems that individualized programs designed specifically for bereaved family members may be more beneficial than group programs. Furthermore, as the experience of loss can differ significantly based on age [26], it is necessary to develop age-specific programs. Additionally, there is a need for programs tailored to factors such as the predictability of the loss, its root causes, and the length of the bereavement process. There is also a notable lack of research evaluating the effectiveness of programs like music therapy, instrument-based therapy, and drama therapy [22]. Therefore, it is crucial to assess the effectiveness of programs that use appropriate media, taking into account the life cycle of the participants, in future studies.

When implementing group programs for grieving families, it is crucial to consider the number of participants in each group, the number of sessions, and the length of each session. Even recent research, such as Lee's study [27], lacks a theoretical basis for designing intervention programs for bereaved families. As a result, the structure of earlier programs is often used as a reference when creating these programs. According to the findings of this study, it's recommended that a minimum of 8 to 12 sessions, each lasting approximately 90 to 120 minutes, is necessary to evaluate the impact of grief and depression on bereaved family members.

Among the 10 studies that applied group intervention programs for bereaved families and were subjected to methodological quality assessment in this study, random allocation of participants was mentioned. However, those studies did not clearly describe concealment of the allocation sequence, blinding of participants and researchers, and blinding of outcome

assessors. It is likely that the papers analyzed in this study, many of which were theses, often had researchers directly implementing and evaluating the intervention programs. This lack of proper concealment or blinding could have affected the rigorousness of the methodologies used. However, given the nature of these studies being thesis research, detailed intervention manuals were frequently provided. Information about the expertise of those providing the intervention and monitoring was generally included in the descriptions.

All 10 studies included in the meta-analysis targeted middle-aged women in need of psychological support following a bereavement. The interventions included a range of approaches such as loss-oriented healing, art therapy, grief healing, integrated art therapy, grief-focused cognitive-behavioral therapy, and various group activities. The results demonstrated significant impacts on grief and depression within this demographic. These findings reinforce the notion that specialized interventions can be advantageous for those needing emotional and psychological assistance after a loss [28,29]. They also underscore the necessity of programs and support systems for the recovery and readjustment of bereaved individuals [26]. Looking ahead, it is expected that through the use of randomized controlled experimental designs aimed at different groups of bereaved individuals—particularly men who have lost spouses and parents who have lost children—we can develop effective intervention programs to facilitate recovery and adaptation after bereavement.

This study has several limitations. First, existing programs did not adequately delineate the differences between the various media used, and as a result, they did not offer specific explanations for the unique variables associated with post-bereavement recovery and readjustment [22]. Second, the lack of a standardized methodology and insufficient detail in individual studies made it challenging to address heterogeneity in the meta-analysis and to conduct detailed subgroup analyses. Third, the limited number of qualitative studies suitable for meta-analysis has hindered the verification of publication bias. Despite these limitations, this study is significant in that it analyzed trends in domestic bereavement family intervention program research from 2000 to 2022, thoroughly and systematically evaluated the effectiveness of each program through meta-analysis, and thus provided evidence-based information for future program operation and development. Moreover, by demonstrating the effectiveness of bereavement family intervention programs in reducing depression and grief, this study has confirmed the notion that such programs aid bereaved families in overcoming sorrow, returning to a state of well-being prior to bereavement, and potentially achieving a more mature life [7].

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

ORCID

Myung-Nam Lee, https://orcid.org/0000-0002-7272-752X
Jung Won Suk, https://orcid.org/0000-0003-0249-8757
Hyunsook Zin Lee, https://orcid.org/0000-0003-0578-9234

AUTHOR'S CONTRIBUTIONS

Conception or design of the work: all authors. Data collection: MNL, HZL. Data analysis and interpretation: all authors. Drafting the article: all authors. Critical revision of the article: MNL. Final approval of the version to be published: MNL.

SUPPLEMENTARY MATERIALS

Supplementary materials can be found via https://doi.org/10.14475/jhpc.2023.26.3.126.

REFERENCES

1. Cooley ME. Bereavement care. A role for nurses. Cancer Nurs 1992;15:125-9.

2. Park KB, Kim B. Experiences of spousal bereavement in middle aged men. Asian Oncology Nursing 2004;4:143-53.
3. Kim CG, The hospice and palliative care in Korea. J Hosp Palliat Care 2019;22:1-7.
4. World Health Organization. WHO definition of palliative care [Internet]. Geneva: WHO; 2019 [cited 2019 Aug 10]. Available from: https://www.who.int/cancer/palliative/definition/en/.
5. Ro YJ, An YI. Bereavement care of hospice services in Korea. J Hosp Palliat Care 2000;3:126-35.
6. Doo HJ. Experience of grief adaptation in bereaved family-Focused on the bereaved family inc based hospice center- [dissertation]. Seoul: Univ. of Hanyang; 2008. Korean.
7. Shin Y. A phenomenological study on the emotion of university students who experienced death of their parent [dissertation]. Seoul: Univ. of Baekseok; 2008. Korean.
8. Gray S. The alchemy of words. Bereavement Care 2011;30:2-4.
9. Jeong Y, Kim CT. Suicidal ideation differences to bereavement experiences in Korean adults: focused on 2019 Koreans views of life and death survey. Mental Health & Social Work 2020;48:91-114.
10. Neimeyer RA, Currier JM, Coleman R, Tomer A, Samuel E. Confronting suffering and death at the end of life: the impact of religiosity, psychosocial factors, and life regret among hospice patients. Death Stud 2011;35:777-800.
11. Ott CH, Lueger RJ. Patterns of change in mental health status during the first two years of spousal bereavement. Death Stud 2002;26:387-411.
12. Parkes CM. Searching the literature on bereavement. Bereavement Care 2001;20:19-21.
13. Aoun SM, Rumbold B, Howting D, Bolleter A, Breen LJ. Bereavement support for family caregivers: the gap between guidelines and practice in palliative care. PLoS One 2017;12:e0184750.
14. Statistics Korea. Top 100 indicators - Mortality [Internet]. Daejeon: Statistics Korea; 2021 [cited 2023 Feb 24]. Available from: https://kosis.kr/visual/nsportalStats/detailContents.do?statJipyoId=3676&vStatJipyoId=4845&listId=D.
15. Kwon S, Choi S. Experiences of hospice and palliative nurses in response to the COVID-19 pandemic: a qualitative study. J Hosp Palliat Care 2021;24:245-53.
16. Kim SY, Park JE, Lee YJ, Seo H, Sheen S, Hahn S, et al. Testing a tool for assessing the risk of bias for nonrandomized studies showed moderate reliability and promising validity. J Clin Epidemiol 2013;66:408-14.
17. Higgins J, Green S, editors. Cochrane handbook for systematic reviews of interventions [Internet]. Version 5.1.0. Chichester(UK): John Wiley & Sons, Inc. [updated 2011 Mar; cited 2023 Fed 24]. Available from: http://www.cochrane-handbook.org.
18. Cohen J. Statistical power analysis for the behavioral science. 2nd ed. Hillsdale, NJ: Lawrence Erlbaum Associates; 1988.
19. Shim SR, R meta-analysis for medicine & public health researchers. Seoul:Hannarae publishing co.;2019.
20. Meier EA, Gallegos JV, Thomas LP, Depp CA, Irwin SA, Jeste DV. Defining a good death (successful dying): literature review and a call for research and public dialogue. Am J Geriatr Psychiatry 2016;24:261-71.
21. Won HJ, Song SA. Effect of spousal bereavement on depression of the elderly: analysis of the impact of traditional gender norms through gender comparison. Health and Social Welfare Review 2019;39:145-72.
22. Yang JS, Lee JE, Lyu JY. Grief therapy programs for bereaved families: a systematic review and meta-analysis. Family and Family Therapy 2017;25:645-70.
23. Kim CH, Kim MS, Moon YJ, Shin HY, Lee MN, Kang KA. Content analysis of multifaceted needs for improving the quality of pediatric palliative care among parents of children with life-threatening conditions. J Hosp Palliat Nurs 2022;24:301-11.
24. Park SW. The effects of a mourning program using art therapy on grief, depression, and ego-integrity of elders bereaved of the spouse [master's thesis]. Busan: Kyungsung Univ.; 2019. Korean.
25. Kim JS. Development and effect of healing program of mourning based on the four noble truths for middle aged bereaved women [dissertation]. Busan: Kyungsung Univ.; 2018. Korean.
26. Yang JS, Chang HJ. The effects of bereavement stress on depression: focusing on the moderating effects of post-adversity growth. Journal of Humanities and Social Sicence 2020;11:891-906.
27. Lee JW. Verification of the effectiveness of loss healing program among widowed elderly women [dissertation]. Chuncheon: Hallym Univ.; 2021. Korean.
28. Jang SS, Lee KM. Study on the research trend of art therapy dissertation in Korea. Journal of Arts Psychotherapy 2013;9:395-418.
29. Nam IS. How to help clients who have psychological difficulties after bereavement? Proceedings of the 2015 Autumn Congress of KAMHSW 2015;10:263-81.

Appendix 1. List of Studies Included in Review (alphabetical order by author name).

1. An YL. Development of individualized bereavement care program and its effects on widows [dissertation]. Seoul: Catholic Univ.; 2006. Korean.
2. Chang SK, You YG. Rituals for grieving as a case study on art-therapy. Korean Art Therapy Association 2012;19:381-404.
3. Choi DJ. A study on effect of a mutual support group program for women who lost spouses [master's thesis]. Seoul: Sogang Univ.; 2010. Korean.
4. Choi DW. Case study on art therapy for the enhancement of emotional intelligence of a child with a single mother and a deceased father [master's thesis]. Seoul: Dongguk Univ.; 2016. Korean.
5. Choi EO. The effects of mourning counseling program for the bereaved middle-aged women [master's thesis]. Seoul: Yongmoon Graduate School of Counseling Psychology; 2013. Korean.
6. Choi WY, Hong JK, Kim CK, Lee SY. Effectiveness of the cognitive-behavioral crisis counseling for the families which have lost their members through a calamity in Daegu subway. Korea Journal of Counseling 2004;5:505-18.
7. Jang HE, Choi EY, Kong M. Mourning art therapy research experience focused on enameling mandala for bereaved women. Korean Journal of Art Therapy 2016;23:1099-122.
8. Jang SK. A case study on art therapy for overcoming grief with the bereaved families [dissertation]. Seoul: Univ. of Yonsei; 2010. Korean.
9. Kang HY. Effects of a bereavement intervention program in middle aged widows [dissertation]. Seoul: Catholic Univ.; 2006. Korean.
10. Kim BK. An effect of a mutual support group program for Catholic bereaved families according to the pastoral counseling approach. World and Word 2012;31:69-108.
11. Kim HJ. A case study on the quality of art therapy for depression of middle-aged women who experienced child's bereavement [master's thesis]. Seoul: Konkuk Univ.; 2022. Korean.
12. Kim HS. Development and evaluation of a group art therapy program for parents of unmarried brain-dead organ donors [dissertation]. Seoul: Catholic Univ.; 2016. Korean.
13. Kim JS. A study on the effect of accommodated therapy to the middle-aged women with bereavement on mourning, self-worth, and their psychological stability [master's thesis]. Busan: Kyungsung Univ.; 2013. Korean.
14. Kim JS. Development and effect of healing program of mourning based on the four noble truths for middle aged bereaved women [dissertation]. Busan: Kyungsung Univ.; 2018. Korean.
15. Kim KA. A narrative inquiry of the experience of mourning-Focused family art therapy of a bereaved family [master's thesis]. Gyeongsan: Yeungnam Univ.; 2022. Korean.
16. Kim MJ, Lim NY. A concept mapping of the client experience through mandala art therapy for bereaved family member's mourning. Korean Journal of Arts Therapy 2022;22:1-20.
17. Kim MJ. Hermeneutic pain play for mourning: Based on Ludwig Wittgenstein's pain and play concepts. The Journal of Pastoral Care and Counseling 2021;36:104-36.
18. Kim YK. Analysis on the Influence of mindfulness based compassion meditation program for elderly women's brain activation and stress, who experienced loss of spouse. Journal of the Korea Academia-Industrial cooperation Society 2016;17:312-8.
19. Lee JS. The effects of the scenario theraphy program on grief and resilience of parentally bereaved youth [master's thesis]. Busan: Kyungsung Univ. 2016. Korean.
20. Lee JW. Verification of the effectiveness of loss healing program among widowed elderly women [dissertation]. Chuncheon: Hallym Univ.; 2021. Korean.
21. Lee MK, A study on the effectiveness of bereavement program for hospice bereaved families: Focusing on the case of Mohyeon family hospice program [master's thesis]. Gangneung: Catholic Kwandong Univ.; 2012. Korean.
22. Lee SJ. Narrative inquiry with child who have suffered unexpected bereavement from his father through the mourning art theraphy [master's thesis]. Pocheon: CHA Univ.; 2022. Korean.
23. Lee SS, Park HS. Effects of drama therapy on sense of hope and depression of widows of national meritorious persons. Korean Journal of Arts Therapy 2008;8:281-304.
24. Lee SY. A case study on art therapy affecting self-integration and depression of older adult who experienced bereavement in the pandemic era [master's thesis]. Seosan: Hanseo Univ.; 2022. Korean.
25. Lim SH, Lee MY, Kim JM. Cognitive-behavioral grief therapy for middle-zaged women after spousal bereavement. Cognitive Behavior Therapy in Korea 2013;13:173-91.
26. Min JH. A narrative inquiry on mourning art therapy experience of a bereaved child of his father [master's thesis]. Pocheon: CHA Univ.; 2020. Korean.
27. Moon SH, Choe YS. A case study on art treatment focused on child-care processes with the father's counseling for the reduction of depression and unrest in children by in response to the loss of their mother. Korean Journal of Art Therapy 2020;27:725-45.
28. Nam HR. A case study of art therapy for youth who experienced father's bereavement [master's thesis]. Seosan: Hanseo Univ.; 2020. Korean.

https://doi.org/10.14475/jhpc.2023.26.3.126

29. Noh HR. A study on the effects of bereavement intervention group counseling for elders bereaved of the spouse [master's thesis]. Seoul: Soongsil Univ.; 2011. Korean.
30. Oh JY. A case study of art therapy for bereaved child: Focusing on the mourning process [master's thesis]. Seoul: Myongji Univ.; 2013. Korean.
31. Oh YJ. The study of symbol of mourning on the mandala of bereavement adult- The casestudy of mandala art therapy for the reduction of depression-. Korean Journal of Arts Therapy 2008;8:1-21.
32. Park EH, Kim SH. The effects of family art therapy on mourning and emotional stability in bereaved families. Korean Journal of Art Therapy 2019;26:83-109.
33. Park JA, Lee MW. A qualitative single case study on change in interactive bibliotherapy experience with a middle-aged widowed spouse. Journal of Korean Library and Information Science Society 2015;46:299-324.
34. Park JP. Care for bereavement family through Broom Tree Holistic Healing School [dissertation]. Seoul: Presbyterian College; 2012. Korean.
35. Park SE. A case study of art therapy for children who have experienced father's death: focused on the mourning process [master's thesis]. Seoul: Hanyang Univ.; 2015. Korean.
36. Park SJ. The analysis of art and narrative therapy's effectiveness for a "Father-loss" adolescent's emotional awareness and expressiveness [master's thesis]. Pocheon: CHA Univ.; 2018. Korean.
37. Park SW, Yoo NH. A case study on the group art therapy experience of the elderly living alone after death of a spouse. Korean Journal of Art Therapy 2021;28:1497-518.
38. Park SW. A qualitative case study on the experiences of group counseling for the elderly living alone by the bereavement of a spouse [dissertation]. Busan: Kyungsung Univ.; 2021. Korean.
39. Park SW. The effects of a mourning program using art therapy on grief, depression, and ego-integrity of elders bereaved of the spouse [master's thesis]. Busan: Kyungsung Univ.; 2019. Korean.
40. Rho HY. Single case study on art therapy of children having experience of the family bereavement [master's thesis]. Seoul: Dongguk Univ.; 2012. Korean.
41. Seo CH, Park JY, Baek MJ, Kim MS. Experience of 'overcoming the pain of family loss of suicide' through suicide bereavement support group: SPACE experiential model of family survivors. Journal of family relations 2017;22:73-101.
42. Seo MJ. The effect of group counseling based on Buddhistdependent origination for bereaved family [master's thesis]. Naju: Dongshin Univ.; 2018. Korean.
43. Seol JH, Mun JH, Cheon SM. The effect of the integrated arts therapy to the middle-aged women with bereavement on mourning and self-worth. Journal of Arts Psychothreapy 2016;12:247-70.
44. Yang JS, Lyu JY. The development and effect of the grief therapy program for middle-aged women with bereavement. Korean Journal of Counseling 2018;19:293-312.
45. Yang SH. A study in hermeneutic phenomenology on experience of art therapy as a mourning process for a widow who has experienced complicated grief [master's thesis]. Pocheon: CHA Univ.; 2019. Korean.